

Annotated Bibliography

for

Strangers in Crisis:

***Communicating with Patients, Families and
Your Team in the Emergency Department***



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I. CLINICIAN-PATIENT COMMUNICATION

Accreditation Council for Graduate Medical Education. (2005). Outcome Project. Retrieved December 21, 2008, from <http://www.acgme.org/outcome/comp/compFull.asp>.

- ACGME competencies state that graduate medical education programs must integrate the following ACGME competencies into the curriculum:
- Patient Care: Residents must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
- Medical Knowledge: Residents must demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care.
- Practice-based Learning and Improvement: Residents must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.
- Interpersonal and Communication Skills: Residents must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals
- Professionalism: Residents must demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
- Systems-based Practice: Residents must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

Adams RJ, Smith BJ & Ruffin RE. Impact of the physician's participatory style in asthma outcomes and patient satisfaction. *Annals of Allergy, Asthma & Immunology*, 86(3) 263-271, 2001.

OBJECTIVES: To identify factors associated with asthma patients' perceptions of the propensity of pulmonologists to involve them in treatment decision-making, and its association with asthma outcomes.

DESIGN: Cross-sectional observational study performed from June 1995 to December 1997. SETTING: Pulmonary unit of a university teaching hospital.

PATIENTS: Adult patients with asthma (n = 128).

MEASUREMENTS AND RESULTS: By patient self-report, mean physician's participatory decision-making (PDM) style score was 72 (maximum 100, 95% CI 65, 79). PDM scores were significantly correlated ($P < .0001$) with the duration of clinic visits ($r = .63$), patient satisfaction ($r = .53$), duration of tenure of doctor-patient relationship ($r = .37$), and formal education ($r = .22$, $P = .023$). Significantly higher PDM style scores were reported when visits lasted longer than 20 minutes and when a patient had a >6-month relationship with a particular doctor. PDM scores were also significantly correlated with possession of a written asthma action plan ($r = .54$, $P < .0001$), days affected by asthma ($r = .36$, $P = .0001$), asthma symptoms ($r = .23$, $P = .017$), and preferences for autonomy in asthma management decisions ($r = .28$, $P = .0035$). Those with PDM scores <50 reported significantly lower quality of life for all domains of a disease-specific instrument and the Short-Form 36 health survey version 1.0. In multiple regression analysis, PDM style was associated with the length of the office visit and the duration of tenure of the physician-patient relationship ($R^2 = 0.47$, $P = .0009$). The adjusted odds ratio, per standard deviation decrease in PDM scores, for an asthma hospitalization was 2.0 (95% CI 1.2, 3.2) and for rehospitalization was 2.5 (95% CI 1.2, 4.2). CONCLUSIONS: Patients' report of their physician's PDM style is significantly associated with health-related quality of life, work disability, and recent need for acute health services. Organizational factors, specifically longer visits and more time seeing a particular physician, are independently associated with more participatory visits. This has significant policy implications for asthma management.

Ambady N, Laplante D, Nguyen T, Rosenthal R, Chaumeton N, & Levinson W. Surgeons' tone of voice: A clue to malpractice history. *Surgery*, 132(1):5-9, 2002.

BACKGROUND: Interpersonal aspects of care, such as the communication behaviors of physicians, are often cited as central to patients' decisions to initiate malpractice litigation. Relatively little is known, however, about the impact of the communication behaviors of surgeons. In the current study, we investigated the relationship between judgments of surgeons' voice tone and their malpractice claims history.

METHODS: We examined the relationship between surgeons' voice tone during routine office visits and their history of malpractice claims. Surgeons were audiotaped while speaking to their patients during office visits, and very brief samples of the conversations were rated by coders blind to surgeons' claims status. Two 10-second clips were extracted for each surgeon from the first and last minute of their interactions with 2 different patients. Several variables were rated that assessed warmth, hostility, dominance, and anxiety from 10-second voice clips with content and 10-second voice clips with just voice tone.

RESULTS: Controlling for content, ratings of higher dominance and lower concern/anxiety in their voice tones significantly identified surgeons with previous claims compared with those who had no claims (odds ratio [OR] 2.74, 95% confidence interval [CI] 1.16 to 6.43 for dominance; OR 0.46, 95% CI 0.21 to 1.01 for concern/anxiety).

CONCLUSIONS: Surgeons' tone of voice in routine visits is associated with malpractice claims history. This is the first study to show clear associations between communication and malpractice in surgeons. Specific types of affect associated with claims can be judged from brief audio clips, suggesting that this method might be useful in training surgeons.

Beckman HB, & Frankel RM. The effect of physician behavior on the collection of data. *Annals of Internal Medicine*, 101(5) 692-696, 1984.

OBJECTIVE: To determine the effect of the physician's response at the opening of the medical interview on the completeness of data collection.

DESIGN: Audiotapes of visits to a primary care facility were reviewed to determine the effect of physician input in the initial stages of the medical interview.

SETTING: Primary care internal medicine practice at Wayne State University. 2 experienced physicians and 13 residents in internal medicine conducted interviews.

SUBJECTS: 74 interviews were taped. The patient population consisted primarily of the elderly and the chronically ill. Most were of low socioeconomic level. 64% female; 74% return visits.

INTERVENTIONS: None.

MEASURES: Audio tapes were coded using a method sensitive to production and timing of dialogue.

RESULTS: Patients were permitted to complete their opening statement of concerns in only 23% of the visits. Only 1 of 52 interrupted opening statements were subsequently completed. On average, interruption occurred 18 seconds after the patient began speaking. Completed statements of concerns took no more than 150 seconds.

CONCLUSIONS: Physician-directed interviewing at the beginning of a visit may eliminate the expression of patient concerns and questions.

Beckman HB, Markakis KM, Suchman AL, & Frankel RM. The doctor-patient relationship and malpractice. Lessons from plaintiff depositions. *Archives of Internal Medicine*, 154(12):1365-1370, 1994.

OBJECTIVE: To explore plaintiff depositions to gain insight into issues that prompt malpractice claims.

DESIGN: Retrospective content analysis of depositions.

SETTING: Large metropolitan medical center.

SUBJECTS: Convenience sample of 45 patient depositions randomly selected from a sample of 67 made available from settled claims between 1985 and 1987.

INTERVENTIONS: None.

MEASURES: Information extracted included responses to the following questions: "Why are you suing?" and "Did a health professional suggest maloccurrence?"

RESULTS: Relationship problems were identified in 71% of depositions. Four themes emerged: 32% deserting the patient; 29% devaluing patient and/or family views; 26% delivering information poorly; and 13% failing to understand the patient and/or family perspective. Fifty-four percent of plaintiffs responded affirmatively when asked if health professionals suggested maloccurrence. Of these cases, 71% named the post outcome consulting specialist as the one who suggested maloccurrence.

CONCLUSIONS/RECOMMENDATIONS: The decision to litigate is most often associated with perceived lack of caring and/or collaboration in health care delivery. Particular attention needs to be paid to post adverse event consultant-patient interactions.

Bonvicini KA, Perlin MP, Bylund CL, Carroll JG, Rouse R, & Goldstein MG. Impact of communication training on physician expression of empathy in patient encounters. *Patient Education and Counseling*. 75(1):3-10, April 2009

OBJECTIVE: To examine whether an educational intervention that focused on physician communication training influenced physician empathic expression during patient interactions.

METHODS: This study used a quantitative research method to investigate the influence of communication training on physician-expressed empathy using two measures (global and hierarchical) of physician empathic behavior.

RESULTS: The differences in global empathy scores in the physician training group from baseline to follow-up improved by 37%, and hierarchical scores of physician empathic expression improved by up to 51% from baseline scores for the same group.

CONCLUSIONS: The results strongly supported the hypotheses that training made a significant difference in physician empathic expression during patient interactions demonstrated by both outside observer measures of global ratings and hierarchical ratings of physician empathic behavior.

PRACTICE IMPLICATIONS: These findings have significant implications for program design and development in medical education and professional training with the potential to improve patient outcomes.

Braddock CH, Edwards KA, Hasenberg NM, Laidley TL, & Levinson W. Informed decision making in outpatient practice, *Journal of the American Medical Association*. 282:2313-2320, 1999.

CONTEXT: Many clinicians have called for an increased emphasis on the patient's role in clinical decision making. However, little is known about the extent to which physicians foster patient involvement in decision making, particularly in routine office practice.

OBJECTIVE: To characterize the nature and completeness of informed decision making in routine office visits of both primary care physicians and surgeons.

DESIGN: Cross-sectional descriptive evaluation of audiotaped office visits during 1993.

Setting and Participants A total of 1057 encounters among 59 primary care physicians (general internists and family practitioners) and 65 general and orthopedic surgeons; 2 to 12 patients were recruited from each physician's community-based private office.

MAIN OUTCOME MEASURES: Analysis of audiotaped patient-physician discussions for elements of informed decision making, using criteria that varied with the level of decision complexity: basic (eg, laboratory test), intermediate (eg, new medication), or complex (eg, procedure). Criteria for basic decisions included discussion of the nature of the decision and asking the patient to voice a preference; other categories had criteria that were progressively more stringent.

RESULTS: The 1057 audiotaped encounters contained 3552 clinical decisions. Overall, 9.0% of decisions met our definition of completeness for informed decision making. Basic decisions were most often completely informed (17.2%), while no intermediate decisions were completely informed, and only 1 (0.5%) complex decision was completely informed. Among the elements of informed decision making, discussion of the nature of the intervention occurred most frequently (71%) and assessment of patient understanding least frequently (1.5%).

CONCLUSIONS: Informed decision making among this group of primary care physicians and surgeons was often incomplete. This deficit was present even when criteria for informed decision making were tailored to expect less extensive discussion for decisions of lower complexity. These findings signal the need for efforts to encourage informed decision making in clinical practice.

Braddock CH, Fihn SD, Levinson W, Jonsen AR, & Pearlman RA. How doctors and patients discuss routine clinical decisions. informed decision making in the outpatient setting. *Journal of General Internal Medicine*, 12(6) 339-345, 1997.

OBJECTIVE: To characterize the informed consent process in routine, primary care office practice. DESIGN: Cross-sectional, descriptive evaluation of audiotaped encounters.

SETTING: Offices of primary care physicians in Portland, Oregon.

PARTICIPANTS: Internists (54%) and family physicians (46%), and their patients.

MEASUREMENTS AND MAIN RESULTS: Audiotapes of primary care office visits from a previous study of doctor-patient communication were coded for the number and type of clinical decisions made. The discussion between doctor and patient was scored according to six criteria for informed decision making: description of the nature of the decision, discussion of alternatives, discussion of risks and benefits, discussion of related uncertainties, assessment of the patient's understanding and elicitation of the patient's preference. Discussions leading to decisions included fewer than two of six described elements of informed decision making (mean 1.23, median 1.0), most frequent of these was description of the nature of the decision (83% of discussion). Discussion of risks and benefits was less frequent (9%), and assessment of understanding was rare (2%). Discussions of management decisions were generally more substantive than discussions of diagnostic decisions ($p = .05$).

CONCLUSIONS: Discussions leading to clinical decisions in these primary care settings did not fulfill the criteria considered integral to informed decision making. Physicians frequently described the nature of the decision, less frequently discussed risks and benefits, and rarely assessed the patient's understanding of the decision.

Clever SL, Jin L, Levinson W, & Meltzer DO (2008). Does doctor-patient communication affect patient satisfaction with hospital care? Results of an analysis with a novel instrumental variable. *Health Services Research* 43:5, Part I, 1505-1519, October 2008.

OBJECTIVE. To determine the relationship between physicians' communication behaviors and patients' overall satisfaction with hospital care using a novel instrumental variable to address possible confounding of this association by patient attributes.

DATA SOURCES/STUDY SETTING. Administrative records and postdischarge survey data were obtained from patients discharged from the General Medicine service at an urban tertiary-care academic hospital between July 1, 1997 and June 30, 2000. Administrative data included comorbidities, demographic data, and payer status. In the discharge survey, patients rated their attending physician on four communication behaviors, other aspects of their hospital stay, and their overall hospital care.

Study Design. The primary outcome was patients' ratings of their overall satisfaction with hospital care, and the primary independent variable was patients' ratings of their physicians' communication behaviors. To remove possible confounding of the association between patient ratings of physician communication and overall satisfaction by other patient-specific

attributes, we created an instrumental variable (IV) in a two-stage linear regression. The IV was the mean of the communication ratings given to each physician by the other patients cared for by that physician.

PRINCIPLE FINDINGS/CONCLUSIONS. Three thousand one hundred and twenty-three patients were included in the analysis. In the ordinary least squares regression, there was a significant positive relationship between overall satisfaction and overall ratings of attendings' communication behaviors, with an increase in overall satisfaction of 0.58 points on a 5-point scale for each 1-point increase in overall attendings' communication behaviors, $p < .001$. This relationship was maintained but attenuated in the IV regression, with a coefficient of 0.40, $p = .046$. Although we find that the relationship between patient communication ratings and overall patient satisfaction may be confounded by patient-level factors, we nevertheless continue to find evidence of a statistically significant and sizable relationship between physicians' communication behaviors and overall patient satisfaction after controlling for such factors.

Coulehan JL, Platt FW, Egener B, Frankel R, Lin CT, & Lown B et al. Let me see if I have this right: Words that help build empathy. *Annals of Internal Medicine*, 135(3):221-227, 2001.

Emphasized the importance of the choice of words and sentences in the facilitation of empathy in the medical encounter. Difference between empathy and sympathy; Components of empathic communication; Potential empathic opportunities; Guidelines for clinical empathy in the cross-cultural setting.

DiMatteo MR, Giordani PJ, Lepper HS, & Croghan TW. Patient adherence and medical treatment outcomes: A meta-analysis. *Medical Care*, 40(9):794-811, 2002.

BACKGROUND: Adherence is a factor in the outcome of medical treatment, but the strength and moderators of the adherence-outcome association have not been systematically assessed.

OBJECTIVES: A quantitative review using meta-analysis of three decades of empirical research correlating adherence with objective measures of treatment outcomes.

METHOD: Sixty-three studies assessing patient adherence and outcomes of medical treatment were found involving medical regimens recommended by a nonpsychiatrist physician, and measuring patient adherence and health outcomes. Studies were analyzed according to disease (acute/chronic, severity), population (adult/child), type of regimen (preventive/treatment, use of medication), and type and sensitivity of adherence and outcomes measurements.

RESULTS: Overall, the outcome difference between high and low adherence is 26%. According to a stringent random effects model, adherence is most strongly related to outcomes in studies of nonmedication regimens, where measures of adherence are continuous, and where the disease is chronic (particularly hypertension, hypercholesterolemia, intestinal disease, and sleep apnea). A less stringent fixed effects model shows a trend for higher adherence-outcome correlations in studies of less serious conditions, of pediatric patients, and in those studies using self-reports of adherence, multiple measures of adherence, and less specific measures of outcomes. Intercorrelations among moderator variables in multiple regression show that the best predictor of the adherence-outcome relationship is methodological-the sensitivity/quality of the adherence assessment.

Easter DW, & Beach W. Competent patient care is dependent upon attending to empathic opportunities presented during interview sessions. *Current Surgery*, 61(3):313-318, 2004.

OBJECTIVE: Core competencies in surgical education and clinical care rely on effective patient-physician communication. We aim to develop quantitative and empirical tools for understanding critical communication tasks during patient interviews.

METHODS: Residents in surgical training and attending physicians were separately video recorded during stressful, first visit oncology patient interview sessions. Taped sessions ($n = 16$) were analyzed in detail to identify and label patient-initiated actions (PIAs), or "empathic opportunities," that call for recognition or action from the caregiver. Doctor-responsive actions (DRAs) were labeled as matching to, or missing from, each empathic opportunity. Missed empathic opportunities occurred when a PIA did not have an associated DRA. Pre-session and post-session surveys queried the patient's perception of how well their health-care needs were met.

RESULTS: Resident trainees and attending physicians missed 70% of 160 clearly identified empathic opportunities. There was no clear association with the level of physician training. This pilot study did not have enough power to discern differences in patient satisfaction.

CONCLUSIONS: Physicians are often not very attentive to empathic opportunities offered by patients. Individual feedback and training regarding empathic opportunities in recorded patient communication encounters may improve resident and physician core competencies. These improvements may affect patient satisfaction related to these encounters.

Floyd DL, Prentice-Dunn S, & Rogers RW. A meta-analysis of research on protection motivation theory. *Journal of Applied Social Psychology*. 30:407-429, 2000.

This article reports the first meta-analysis of the literature on protection motivation theory (Rogers, 1975, 1983; Rogers & Prentice-Dunn, 1997), a model of disease prevention and health promotion that has generated research for over two decades. The literature review included 65 relevant studies ($N =$ approximately 30,000) that represented over 20 health

issues. The mean overall effect size ($d+ = .52$) was of moderate magnitude. In general, increases in threat severity, threat vulnerability, response efficacy, and self-efficacy facilitated adaptive intentions or behaviors. Conversely, decreases in maladaptive response rewards and adaptive response costs increased adaptive intentions or behaviors. This held true whether the measures were based on intentions or behaviors, and suggests that PMT components may be useful for individual and community interventions.

Groopman J (2007). *How doctors think*. Houghton Mifflin Company: NY.

On average, a physician will interrupt a patient describing her symptoms within eighteen seconds. In that short time, many doctors decide on the likely diagnosis and best treatment. Often, decisions made this way are correct, but at crucial moments they can also be wrong -- with catastrophic consequences. In this myth-shattering book, Jerome Groopman pinpoints the forces and thought processes behind the decisions doctors make. Groopman explores why doctors err and shows when and how they can -- avoid snap judgments, embrace uncertainty, communicate effectively, and deploy other skills that can profoundly impact our health. This book is the first to describe in detail the warning signs of erroneous medical thinking and reveal how new technologies may actually hinder accurate diagnoses. *How Doctors Think* offers direct, intelligent questions patients can ask their doctors to help them get back on track. Groopman draws on a wealth of research, extensive interviews with some of the country's best doctors, and his own experiences as a doctor and as a patient. He has learned many of the lessons in this book the hard way, from his own mistakes and from errors his doctors made in treating his own debilitating medical problems. *How Doctors Think* reveals a profound new view of twenty-first-century medical practice, giving doctors and patients the vital information they need to make better judgments together.

Hanson JL: Shared decision making – Have we missed the obvious. (Editorial). *Archives of Internal Medicine*.168(13):1368-1370, 2008.

Describes eight myths about shared decision making e.g., everyone knows what it is, there is only one approach, physicians alone drive it, most physicians would engage in shared decision making if they had the time, we don't have the time, most patients would rather the physician tell them what to do.

Hausman A (2001). Taking your medicine: Relational steps to improving patient compliance. *Health Marketing Quarterly*, 19(2) 49-71.

Patient non-compliance with physicians' instructions is a major problem that costs billions of dollars each year. This study supports a significant role for communication, both as a form of information exchange and social support, and participative decision-making in improving patient compliance. These results, based on structural equation modeling, also support the interaction of communication and participative decision-making positively affecting compliance. Results suggest that one-way communication from physician to patient and patient education will not solve compliance problems by themselves. Instead the solution revolves around open, bi-directional information exchange, active listening by both parties, and truly informed consent on the part of patients.

Hay MC, Strathmann C, Lieber E, Wick K, Giesser B. Why patients go online: multiple sclerosis, the internet, and physician-patient communication. *Neurologist*. 14(6):374-81, November 2008.

BACKGROUND: The online information seeking of multiple sclerosis (MS) patients, their reasons for doing so, and its importance for physician-patient communication have not been described.

METHODS: Patients ($n = 61$) presenting for the first time at an MS clinic from December 2003 to July 2005 were interviewed pre- and postappointment and administered standard measures of pain and health quality of life. Consultations were audio recorded. Quantitative data were analyzed in light of qualitative data.

RESULTS: Eighty-two percent of patients reported gathering medical information online before their first appointment; 36% discussed this information with their physician. Qualitative reasons for Internet information seeking and for not communicating it show some signs of wariness of health care potentially leading to nonadherence.

CONCLUSIONS: Most MS patients are informed by online information, but are unlikely to discuss that research with physicians for reasons that may have implications for patient adherence.

Haynes RB, McDonald H, Garg AX, & Montague P. Interventions for helping patients to follow prescriptions for medications. *The Cochrane Database of Systematic Reviews*, Issue 2, 2002

This is a substantive amendment to this systematic review was last made on 08 February 2002. Cochrane reviews are regularly checked and updated if necessary.

BACKGROUND: People who are prescribed self-administered medications typically take less than half the prescribed doses. Efforts to assist patients with adherence to medications might improve the benefits and efficiency of health care, but also might increase its adverse effects.

OBJECTIVES: To update a review summarising the results of randomised controlled trials (RCTs) of interventions to help patients follow prescriptions for medications for medical problems, focusing on trials that measured both adherence and clinical outcomes.

SEARCH STRATEGY: Computerised searches to August 2001 in MEDLINE, CINAHL, The Cochrane Library, International Pharmaceutical Abstracts (IPA) PsychInfo, and Sociofile; bibliographies in articles on patient adherence; articles in the reviewers' personal collections; and contact with authors of original and review articles on the topic.

SELECTION CRITERIA: Articles were selected if they reported an unconfounded RCT of an intervention to improve adherence with prescribed medications, measuring both medication adherence and treatment outcome, with at least 80% follow-up of each group studied and, for long-term treatments, at least six months follow-up for studies with positive initial findings.

DATA COLLECTION AND ANALYSIS: Information on study design features, interventions and controls, and results were extracted by one reviewer and confirmed by at least one other reviewer. The studies were too disparate to warrant meta-analysis.

MAIN RESULTS: For short-term treatments, one of three interventions reported in three RCTs showed an effect on both adherence and clinical outcome. Eighteen of 36 interventions for long-term treatments reported in 30 RCTs were associated with improvements in adherence, but only 16 interventions led to improvements in treatment outcomes. Almost all of the interventions that were effective for long-term care were complex, including combinations of more convenient care, information, reminders, self-monitoring, reinforcement, counselling, family therapy, and other forms of additional supervision or attention by a health care provider (physician, nurse, pharmacist or other). Even the most effective interventions did not lead to large improvements in adherence and treatment outcomes. Two studies showed that telling patients about adverse effects of treatment did not affect their adherence.

AUTHORS' CONCLUSIONS: The full benefits of medications cannot be realised at currently achievable levels of adherence. Current methods of improving adherence for chronic health problems are mostly complex and not very effective. Innovations to assist patients to follow medication prescriptions are needed.

Heisler M, Bouknight RR, Hayward RA, Smith DM, & Kerr EA. The relative importance of physician communication, participatory decision-making, and patient understanding in diabetes self-management. *Journal of General Internal Medicine*, 17:243-252, 2002.

OBJECTIVE: Patient's self-management practices have substantial consequences on morbidity and mortality in diabetes. While the quality of patient-physician relations has been associated with improved health outcomes and functional status. Little is known about the impact of different patient-physician interaction styles on patients' diabetes self-management. This study assessed the influence of patients' evaluation of their physicians' participatory decision-making style, rating of physician communication, and reported understanding of diabetes, self-care on their self-reported diabetes.

DESIGN: We surveyed 2,000 patients receiving diabetes care across 25 Veterans Affairs facilities. We measured patients' evaluations of provider participatory decision making with a 4-item scale. Using multivariable linear regression, we examined self-management with the independent association of PDMstyle, PCOM, and Understanding.

CONCLUSIONS: For these patients, ratings of providers' communication effectiveness were more important than a participatory decision-making style in predicting diabetes self-management. Reported understanding of self-care behaviors was highly predictive of an attenuated the effect of both PDMstyle and PCOM on self-management, raising the possibility that both provider styles enhance self-management through increased patient understanding or self-confidence.

Hickson GB, Federspiel CF, Pichert JW, Miller CS, Gauld-Jaeger J, & Bost P. Patient complaints and malpractice risk. *The Journal of the American Medical Association*, 287(22):2951-2957, 2002.

OBJECTIVE: To examine the relationship between the distribution of unsolicited patient complaints and the extent to which a physician's risk management activities might be predicted.

DESIGN: Correlational -- Retrospective longitudinal cohort study.

SETTING: U.S. medical group over a 75-month period from January 1992 through March 1998.

SUBJECTS: 645 physicians including surgical and non-surgical practice types. 33.9% were surgeons, 66.1% were in medicine, pediatrics, or neurology. 79.1% were male and 89.3% received U.S. medical training.

INTERVENTION: None.

MEASURES: Unsolicited patient complaint data came from files of the medical center's Patient Advocates Office (PAO) with narratives coded for specific complaints using a standardized set of codes, and compared with risk management activities. Data on risk management activities during the study period were obtained through the Office of Insurance and Risk Management which collected risk management files (RMF's), containing description of an incident where the risk of subsequent legal action was assessed by the risk management staff. The patient complaint data included the alleged offender and was compared with each cohort member's risk management records during the study period.

RESULTS: Non-surgeons had less risk management activity than surgeons (32% for non-surgeons vs. 63% for surgeons having at least one risk management file). Patient complaints did vary by sex where female physicians were less likely than male

physicians to be involved with RMF's, (31% female vs. 46% for male). Both complaint and risk management data were positively correlated with physicians' volume of clinical activity.

CONCLUSIONS/RECOMMENDATIONS: Unsolicited patient complaints obtained and recorded by a medical group's patient advocate office can be used to differentiate physicians at risk for malpractice.

Huntington B, & Kuhn N. Communication gaffes: A root cause of malpractice claims. *Baylor University Medical Center Proceedings*, 16:157-161, 2003. Retrieved on August 26, 2009 from http://www.baylorhealth.edu/proceedings/16_2/16_2_huntington.pdf

This article addresses and provides a response to the medical malpractice insurance crisis, specifically related to the availability of diminishing medical malpractice insurance, skyrocketing insurance premiums, bankruptcy of insurance carriers and refusal to write insurance policies in certain states. The impact of this crisis on patients and physicians is addressed. For instance, the authors discuss the reality that some physicians are leaving medicine as a result of this crisis and the most concerning fallout is that patient access to care is being compromised. The article discusses the "art" of communication as it occurs in everyday patient encounters, the important dialogue that occurs when giving informed consent, the challenge of encountering an angry patient, and the new trend of disclosing unexpected outcomes and medical errors.

Institute of Medicine. (2003). *Health professions education: A bridge to quality*. Washington, D.C.: National Academy Press.

On June 17-18, 2002 over 150 leaders and experts from health professions education, regulation, policy, advocacy, quality, and industry attended the Health Professions Education Summit to discuss and help the committee develop strategies for restructuring clinical education to be consistent with the principles of the 21st-century health system. The report says that doctors, nurses, pharmacists and other health professionals are not being adequately prepared to provide the highest quality and safest medical care possible, and there is insufficient assessment of their ongoing proficiency.

Educators and accreditation, licensing and certification organizations should ensure that students and working professionals develop and maintain proficiency in five core areas: delivering patient-centered care, working as part of interdisciplinary teams, practicing evidence-based medicine, focusing on quality improvement and using information technology.

Jackson JL, Chamberlin J, & Kroenke K. Predictors of patient satisfaction. *Social Science & Medicine*, 52(4):609-620, 2001.

Correlates of patient satisfaction at varying points in time were assessed using a survey with 2-week and 3-month follow-up in a general medicine walk-in clinic, in USA. Five hundred adults presenting with a physical symptom, seen by one of 38 participating clinicians were surveyed and the following measurements were taken into account: patient symptom characteristics, symptom-related expectations, functional status (Medical Outcomes Study Short-Form Health Survey [SF-6]), mental disorders (PRIME-MD), symptom resolution, unmet expectations, satisfaction (RAND 9-item survey), visit costs and health utilization. Physician perception of difficulty (Difficult Doctor Patient Relationship Questionnaire), and Physician Belief Scale. Immediately after the visit, 260 (52%) patients were fully satisfied with their care, increasing to 59% at 2 weeks and 63% by 3 months. Patients older than 65 and those with better functional status were more likely to be satisfied. At all time points, the presence of unmet expectations markedly decreased satisfaction: immediately post-visit (OR: 0.14, 95% CI: 0.07-0.30), 2-week (OR: 0.07, 95% CI: 0.04-0.13) and 3-month (OR: 0.05, 95% CI: 0.03-0.09). Other independent variables predicting immediate after visit satisfaction included receiving an explanation of the likely cause as well as expected duration of the presenting symptom. At 2 weeks and 3 months, experiencing symptomatic improvement increased satisfaction while additional visits (actual or anticipated) for the same symptom decreased satisfaction. A lack of unmet expectations was a powerful predictor of satisfaction at all time-points. Immediately post-visit, other predictors of satisfaction reflected aspects of patient doctor communication (receiving an explanation of the symptom cause, likely duration, lack of unmet expectations), while 2-week and 3-month satisfaction reflected aspects of symptom outcome (symptom resolution, need for repeat visits, functional status). Patient satisfaction surveys need to carefully consider the sampling time frame as well as adjust for pertinent patient characteristics.

Kaiser Family Foundation. Kaiser Health Tracking Poll, Feb 2009. Retrieved on August 24, 2009 from <http://www.kff.org/kaiserpolls/posr022509pkg.cfm>.

The first Kaiser Health Tracking Poll of 2009 finds the public is increasingly worried about the affordability and availability of care, with many postponing or skipping treatments due to cost in the past year and a notable minority forced into serious financial straits due to medical bills. Slightly more than half (53%) of Americans say their household cut back on health care due to cost concerns in the past 12 months. The most common actions reported are relying on home remedies and over-the-counter drugs rather than visiting a doctor or skipping dental care. In the face of the country's current economic challenges the public's support for health reform remains strong and their trust in President Obama to do the right thing in health care reform is high. The February Kaiser Health Tracking Poll, the first in a series designed and analyzed by the Foundation's public opinion survey research team, examines voters' specific health care issue interests and experiences and perceptions about health care reform.

Keating NL, Green DC, Kao AC, Gazmararian JA, Wu VY, & Cleary PD. How are patients' specific ambulatory care experiences related to trust, satisfaction, and considering changing physicians? *Journal of General Internal Medicine*, 17: 29-39, 2002.

Telephone survey of 2000+ patients of a large national health insurer (58% response rate) to assess relationships between outpatient problem experiences and patients' trust in their physicians, and consideration of changing physicians. Classified as problem experiences if the patient reported that the physician did not 1) give them enough time to explain the reason for their visit 2) give answers to questions that were understandable 3) take enough time to answer questions 4) ask about how their family or living situation affects their health 5) give as much medical information as they want 5) involve them in decisions as much as they want. Conclusions: Problem experiences in ambulatory settings strongly related to lowered trust.

Keller VF, & Carroll JG. A new model for physician-patient communication. *Patient Education and Counseling*, 23:131-140, 1994.

The E4 model for physician-patient communication is presented with specific techniques for implementing the model. Derived from an extensive review of the literature on physician-patient communication, the model has proved to be a useful tool in workshops for and coaching of physicians regardless of specialty, experience or practice setting.

Keller VF, & White MK. Choices and changes: A new model for influencing patient health behavior. *Journal of Clinical Outcomes Management, Special Publication*, 17-20, 1997.

This article described the development of a model to guide clinicians in application of research-based principles of motivation and behavior change within the context of the clinician-patient encounters. The model presents a synthesis of the research evidence and specifies two core dimensions of motivation: conviction and confidence. Conviction refers to the values and beliefs that underlie a patient's readiness and intention to take action, while confidence is a reflection of self-efficacy. The model also identifies three components of effective intervention: assessment, rapport building and tailoring.

Kemp EC, Floyd MR, McCord-Duncan E, & Lang F. Patients prefer the method of "Tell Back-Collaborative Inquiry" to assess understanding of medical information. *Journal of the American Board Family Medicine*, 21(1):24-30, 2008.

Purpose: The goal of this study was to determine which approach to assessing understanding of medical information patients most prefer and perceive to be most effective.

Methods: Two videos were shown to participants: (1) a physician explaining a medical condition and its treatment and (2) a physician inquiring about patient understanding of the medical information the patient had been given using 3 different types of inquiry: Yes-No, Tell Back-Collaborative, and Tell Back-Directive.

Results: The Tell Back-Collaborative inquiry was significantly preferred over the other 2 approaches.

Conclusions: Patients strongly prefer the Tell Back-Collaborative inquiry when assessing their understanding. We recommend that physicians ask patients to restate what they understand using their own words and that they use a patient-centered approach.

Larson EB & Yao X. Clinical empathy as emotional labor in the patient-physician relationship. *Journal of American Medical Association*, 293(9):100-1106, 2005.

Empathy should characterize all health care professions. Despite advancement in medical technology, the healing relationship between physicians and patients remains essential to quality care. We propose that physicians consider empathy as emotional labor (ie, management of experienced and displayed emotions to present a certain image). Since the publication of Hochschild's *The Managed Heart* in 1983, researchers in management and organization behavior have been studying emotional labor by service workers, such as flight attendants and bill collectors. In this article, we focus on physicians as professionals who are expected to be empathic caregivers. They engage in such emotional labor through deep acting (ie, generating empathy-consistent emotional and cognitive reactions before and during empathic interactions with the patient, similar to the method-acting tradition used by some stage and screen actors), surface acting (ie, forging empathic behaviors toward the patient, absent of consistent emotional and cognitive reactions), or both. Although deep acting is preferred, physicians may rely on surface acting when immediate emotional and cognitive understanding of patients is impossible. Overall, we contend that physicians are more effective healers—and enjoy more professional satisfaction—when they engage in the process of empathy. We urge physicians first to recognize that their work has an element of emotional labor and, second, to consciously practice deep and surface acting to empathize with their patients. Medical students and residents can benefit from long-term regular training that includes conscious efforts to develop their empathic abilities. This will be valuable for both physicians and patients facing the increasingly fragmented and technological world of modern medicine.

Levinson W, Gorawara-Bhat R, & Lamb J. A study of patient clues and physician responses in primary care and surgical settings. *The Journal of the American Medical Association*, 284(8):1021-1027, 2000.

OBJECTIVE: To explore the nature and frequency of patient clues during medical encounter and physician response among primary care physicians and surgeons.

DESIGN: Descriptive study of audio-taped office visits (data set was part of a larger research project that examined the relationship between physician-patient communication and medical malpractice).

SETTING: Community-based practices of primary care physicians and surgeons in Oregon and Colorado.

SUBJECTS: 116 randomly selected routine office visits to 54 primary care physicians and 62 surgeons (94% male, 91% Caucasian, 67% group practice). Ten patients per physician were selected sequentially from the waiting rooms (54% female, 88% Caucasian, 71% married, average age=54).

INTERVENTION: None.

MEASURES: Audio-taped interactions and transcripts were reviewed to identify and describe segments of the interview in which there were clues about patients' emotional or social concerns. Clues that were initiated by the patient were coded for type and timing and nature of physician response. In addition, physician questions that encouraged patient to discuss a personal topic were also coded as physician-initiated clues. Length of visit was also recorded.

RESULTS: Clues occurred in 52% of the primary care visits (mean number of clues =2.6) and in 53% of the surgical visits (mean number of clues = 1.9). Patients initiated approximately 70% of those clues and physicians initiated approximately 30%. Of the patient led clues in primary care visits, 76% were emotional and 60% in the surgical setting. Physicians missed the opportunity to respond to patient led clues 79% of the time in primary care and 62% in the surgical setting. In 50% of those interviews where the physician missed the opportunity to respond to the patient-led clue, the patient brought up the same issue (clue) a second or third time. In addition, in primary care, visits were longer when there was a missed opportunity to respond by the physician compared with visits where the physician responded with a positive response (mean time, 20.1 min vs. 17.6 min).

CONCLUSIONS/RECOMMENDATIONS: Patients offer clues to physicians that provide rich opportunities for empathy and a greater understanding of patients' lives. In primary care and surgery settings, physicians tend to miss these clues and thus overlooking opportunities to strengthen the doctor-patient relationship. Two aspects of the medical encounter uncovered in this study - patient clues and physician responses, should be recognized as being interdependent and necessary in building a trusting relationship between physician and patients and impacting health outcome.

Levinson W, Kao A, Kuby A, & Thisted R. Not all patients want to participate in decision making: A national study of public preferences. *Journal of General Internal Medicine*, 20(6):531-535, June 2005.

BACKGROUND: The Institute of Medicine calls for physicians to engage patients in making clinical decisions, but not every patient may want the same level of participation.

OBJECTIVES: 1) To assess public preferences for participation in decision making in a representative sample of the U.S. population. 2) To understand how demographic variables and health status influence people's preferences for participation in decision making.

DESIGN AND PARTICIPANTS: A population-based survey of a fully representative sample of English-speaking adults was conducted in concert with the 2002 General Social Survey (N= 2,765). Respondents expressed preferences ranging from patient-directed to physician-directed styles on each of 3 aspects of decision making (seeking information, discussing options, making the final decision). Logistic regression was used to assess the relationships of demographic variables and health status to preferences.

MAIN RESULTS: Nearly all respondents (96%) preferred to be offered choices and to be asked their opinions. In contrast, half of the respondents (52%) preferred to leave final decisions to their physicians and 44% preferred to rely on physicians for medical knowledge rather than seeking out information themselves. Women, more educated, and healthier people were more likely to prefer an active role in decision making. African-American and Hispanic respondents were more likely to prefer that physicians make the decisions. Preferences for an active role increased with age up to 45 years, but then declined.

CONCLUSION: This population-based study demonstrates that people vary substantially in their preferences for participation in decision making. Physicians and health care organizations should not assume that patients wish to participate in clinical decision making, but must assess individual patient preferences and tailor care accordingly.

Levinson W, Roter DL, Mullooly JP, Dull VT, & Frankel RM. Physician-patient communication: The relationship with malpractice claims among primary care physicians and surgeons. *The Journal of the American Medical Association*, 277(7):553-559, 1997.

OBJECTIVE: To identify specific communication behaviors associated with malpractice history in primary care physicians and surgeons.

DESIGN: Correlational.

SETTINGS: One hundred twenty-four physicians' offices in Oregon and Colorado.

SUBJECTS: Primary care physicians (general internists and family practitioners) and general and orthopedic surgeons and their patients. Physicians were classified into no-claims or claims groups based on insurance company records, and were stratified by years in practice and specialty.

MEASURES: Audio tape analysis using the Roter Interaction Analysis System.

RESULTS: Significant differences in communication behaviors of no-claims and claims physicians were identified in primary care physicians but not in surgeons. Compared with claims primary care physicians, no-claims primary care physicians used more statements of orientation (educating patients about what to expect and the flow of the visit), laughed and used humor more, and tended to use more facilitation (soliciting patients' opinions, checking understanding, and encouraging patients to talk). No-claims primary care physicians spent longer in routine visits than claims primary care physicians (mean, 18.3 vs. 15.0 minutes), and the length of the visit had an independent effect in predicting claims status.

CONCLUSIONS: Physician-patient communication differs in primary care physicians with claims versus primary care physicians with no claims. The study identified specific and teachable communication behaviors associated with fewer malpractice claims for primary care physicians. Physicians can use these behaviors as they seek to improve communication and decrease malpractice risk.

Maisels M, Jeffrey MB, & Kring EA. A simple approach to improving patient satisfaction. *Clinical Pediatrics*. 44(9):797-800, November/December 2005.

Summary: Improved communication with families may significantly increase their satisfaction with the care of their hospitalized child. The families of children admitted to a general pediatric service were randomly assigned to receive a daily visit from a communicator/facilitator whose purpose was to respond to any questions the family might have and, if necessary, to explain results of laboratory tests. Control families received routine care. At the time of discharge (study 1) or following discharge (study 2), the families were asked to complete a brief questionnaire regarding the quality of nursing care and physician care (both attending and resident physician). Responses were received from 76/83 (91.6%) in the study group and 75/83 (90.4%) in the control group. There was a highly significant improvement in parent satisfaction with all of the care delivered—nursing, attending physician, and resident care ($p \leq .005$ in all categories of care). The simple act of offering a sympathetic and understanding ear, and answering questions, many of which were unrelated to the medical problem at hand, had a salutary effect on overall patient and family satisfaction with both nursing and medical care. In the current era of intense competition to fill available beds and the important emphasis on quality of care, this approach deserves further evaluation by department managers and hospital administrators.

Makoul G. Essential elements of communication in medical encounters: The Kalamazoo consensus statement. *Academic Medicine: Journal of the Association of American Medical Colleges*, 76(4):390-393, 2001.

In May 1999, 21 leaders and representatives from major medical education and professional organizations attended an invitational conference jointly sponsored by the Institute for Healthcare Communication and the Fetzer Institute. The participants focused on delineating a coherent set of essential elements in physician-patient communication to: (1) facilitate the development, implementation, and evaluation of communication-oriented curricula in medical education and (2) inform the development of specific standards in this domain. Since the group included architects and representatives of five currently used models of doctor-patient communication, participants agreed that the goals might best be achieved through review and synthesis of the models. Presentations about the five models encompassed their research base, overarching views of the medical encounter, and current applications. All attendees participated in discussion of the models and common elements. Written proceedings generated during the conference were posted on an electronic listserv for review and comment by the entire group. A three-person writing committee synthesized suggestions, resolved questions, and posted a succession of drafts on a listserv. The current document was circulated to the entire group for final approval before it was submitted for publication. The group identified seven essential sets of communication tasks: (1) build the doctor-patient relationship; (2) open the discussion; (3) gather information; (4) understand the patient's perspective; (5) share information; (6) reach agreement on problems and plans; and (7) provide closure. These broadly supported elements provide a useful framework for communication-oriented curricula and standards.

Makoul G, Zick A, Green M. An evidence-based perspective on greetings in medical encounters. *Archives of Internal Medicine*, 167(11):1172-6, June 2007.

BACKGROUND: Widely used models for teaching and assessing communication skills highlight the importance of greeting patients appropriately, but there is little evidence regarding what constitutes an appropriate greeting.

METHODS: To obtain data on patient expectations for greetings, we asked closed-ended questions about preferences for shaking hands, use of patient names, and use of physician names in a computer-assisted telephone survey of adults in the 48 contiguous United States. We also analyzed an existing sample of 123 videotaped new patient visits to characterize patterns of greeting behavior in everyday clinical practice.

RESULTS: Most (78.1%) of the 415 survey respondents reported that they want the physician to shake their hand, 50.4% want their first name to be used when physicians greet them, and 56.4% want physicians to introduce themselves using their first and last names; these expectations vary somewhat with patient sex, age, and race. Videotapes revealed that physicians and patients shook hands in 82.9% of visits. In 50.4% of the initial encounters, physicians did not mention the patient's name at all. Physicians tended to use their first and last names when introducing themselves.

CONCLUSIONS: Physicians should be encouraged to shake hands with patients but remain sensitive to nonverbal cues that might indicate whether patients are open to this behavior. Given the diversity of opinion regarding the use of names, coupled with national patient safety recommendations concerning patient identification, we suggest that physicians initially use patients' first and last names and introduce themselves using their own first and last names.

Marvel MK, Epstein RM, Flowers K, & Beckman HB. Soliciting the patient's agenda: Have we improved? *Journal of American Medical Association*, 282(10): 942-943, 1999.

CONTEXT: Previous research indicates physicians frequently choose a patient problem to explore before determining the patient's full spectrum of concerns.

OBJECTIVE: To examine the extent to which experienced family physicians in various practice settings elicit the agenda of concerns patients bring to the office.

DESIGN: A cross-sectional survey using linguistic analysis of a convenience sample of 264 patient-physician interviews.

SETTING AND PARTICIPANTS: Primary care offices of 29 board-certified family physicians practicing in rural Washington (n = 1; 3%), semirural Colorado (n = 20; 69%), and urban settings in the United States and Canada (n = 8; 27%). Nine participants had fellowship training in communication skills and family counseling.

MAIN OUTCOME MEASURES: Patient-physician verbal interactions, including physician solicitations of patient concerns, rate of completion of patient responses, length of time for patient responses, and frequency of late-arising patient concerns.

RESULTS: Physicians solicited patient concerns in 199 interviews (75.4%). Patients' initial statements of concerns were completed in 74 interviews (28.0%). Physicians redirected the patient's opening statement after a mean of 23.1 seconds. Patients allowed to complete their statement of concerns used only 6 seconds more on average than those who were redirected before completion of concerns. Late-arising concerns were more common when physicians did not solicit patient concerns during the interview (34.9% vs 14.9%). Fellowship-trained physicians were more likely to solicit patient concerns and allow patients to complete their initial statement of concerns (44% vs 22%).

CONCLUSIONS: Physicians often redirect patients' initial descriptions of their concerns. Once redirected, the descriptions are rarely completed. Consequences of incomplete initial descriptions include late-arising concerns and missed opportunities to gather potentially important patient data. Soliciting the patient's agenda takes little time and can improve interview efficiency and yield increased data.

Mauksch L, Dugdale D, Dodson S, Epstein R. Relationship, communication, and efficiency in the medical encounter: Creating a clinical model from a literature review. *Archives of Internal Medicine*. 168(13):1387-1395, July 14, 2008.

BACKGROUND: While there is consensus about the value of communication skills, many physicians complain that there is not enough time to use these skills. Little is known about how to combine effective relationship development and communication skills with time management to maximize efficiency. Our objective was to examine what physician-patient relationship and communication skills enhance efficiency.

DATA SOURCES: We conducted searches of PubMed, EMBASE, and PsychINFO for the date range January 1973 to October 2006. We reviewed the reference lists of identified publications and the bibliographies of experts in physician-patient communication for additional publications.

Study Selection: From our initial group of citations (n = 1146), we included only studies written in English that reported original data on the use of communication or relationship skills and their effect on time use or visit length. Study inclusion was determined by independent review by 2 authors (L.B.M. and D.C.D.). This yielded 9 publications for our analysis.

DATA EXTRACTION: The 2 reviewers independently read and classified the 9 publications and cataloged them by type of study, results, and limitations. Differences were resolved by consensus.

Results: Three domains emerged that may enhance communication efficiency: rapport building, up-front agenda setting, and acknowledging social or emotional clues.

CONCLUSIONS: Building on these findings, we offer a model blending the quality-enhancing and time management features of selected communication and relationship skills. There is a need for additional research about communication skills that enhance quality and efficiency.

Miller W & Rollnick, S. *Motivational Interviewing: Preparing people for change*. (2nd ed.), 2002.

This bestselling work has introduced hundreds of thousands of professionals and students to motivational interviewing (MI), a proven approach to helping people overcome ambivalence that gets in the way of change. William R. Miller and Stephen Rollnick explain current thinking on the process of behavior change, present the principles of MI, and provide detailed guidelines for putting it into practice. Case examples illustrate key points and demonstrate the benefits of MI in addictions treatment and other clinical contexts. The authors also discuss the process of learning MI. Chapters contributed by other leading experts address such special topics as MI and the stages-of-change model; applications in medical, public health, and criminal justice settings; and using the approach with groups, couples, and adolescents.

Ong LML, deHaes CJM, Hoos AM, & Lammes, FB. Doctor-patient communication: A review of the literature. *Social Science Medicine*, 40(7):903-918, 1995.

DESCRIPTION OF CONTEXT: Review of the literature on clinician-patient communication.

TOPIC/SCOPE: This review is divided into five sections. Section one presents three different purposes of medical communication: creating a good relationship, exchanging information, and making medical decisions. Section two is a discussion of 12 different interaction systems used to assess doctor-patient communication. In section three specific communication behaviors are discussed. The fourth section focuses on the effect of good communication on outcomes such as patient satisfaction; patient adherence; patient recall and understanding; and physical and psychiatric symptoms. The last section includes concluding remarks and focuses on developing a theoretical framework that relates background, process, and outcome variables.

CONCLUSIONS/RECOMMENDATIONS: Background variable seem to influence both process and outcome. There is a need for empirical research studying the relationship between background, process, and outcome variables.

Pathman DE, Konrad TR, Williams ES, Scheckler WE, Linzer M, & Douglas J. Physician job satisfaction, dissatisfaction, and turnover. *The Journal of Family Practice*, 51(7):593, 2002.

OBJECTIVES: We studied how physicians' relative satisfaction and/or dissatisfaction with 10 distinct aspects of their work protected against or promoted their plans for leaving their jobs.

STUDY DESIGN: Cross-sectional mail survey.

POPULATION: A total of 1939 practicing generalists and specialists across the United States.

OUTCOME MEASURED: We used logistic regression analysis to assess whether physicians in the top and bottom quartiles of satisfaction for each of 10 aspects of their work and communities were more or less likely to anticipate leaving their jobs within 2 years, compared with physicians in mid-satisfaction quartiles. Separate analyses were compiled for generalists vs. specialists, and physicians by age groups (27-44 years, 45-54 years, and 55 years and older).

RESULTS: Generalists and specialists had generally comparable levels of satisfaction, whereas physicians in the oldest age group indicated greater satisfaction than younger physicians in 8 of the 10 work areas. One quarter (27%) of physicians anticipated a moderate-to-definite likelihood of leaving their practices within 2 years. The percentage that anticipated leaving varied with physicians' age, starting at 29% of those 34 years or younger, steadily decreasing with age until reaching a nadir of 22% of those from 45 to 49 years, then reversing direction to steadily increase thereafter. Relative dissatisfaction with pay and relationships with communities, was associated with plans for leaving in nearly all physician groups. For specific specialty and age groups, anticipated departure also correlated with relative dissatisfaction with other selected areas of work.

CONCLUSIONS: To promote retention, these data suggest that physicians and their employers should avoid physician dissatisfaction in particular. Building particularly high levels of satisfaction generally is not helpful for this end. Avoiding relative dissatisfaction with pay and with community relationships appears broadly important.

Peterson MC, Holbrook J, Von Hales D, Smith NL, & Staker LV. Contributions of the history, physical examination and laboratory investigation in making medical diagnoses. *Western Journal of Medicine*, 156: 163-165, 1992.

The researchers report an attempt to quantitate the relative contributions of the history, physical examination, and laboratory investigation in making medical diagnoses. In this prospective study of 80 medical outpatients with new or previously undiagnosed conditions, internists were asked to list their differential diagnoses and to estimate their confidence in each diagnostic possibility after the history, after the physical examination, and after the laboratory investigation. In 61 patients (76%), the history led to the final diagnosis. The physical examination led to the diagnosis in 10 patients (12%), and the laboratory investigation led to the diagnosis in 9 patients (11%). The internists' confidence in the correct diagnosis increased from 7.1 on a scale of 1 to 10 after the history to 8.2 after the physical examination and 9.3 after the laboratory investigation. These data support the concept that most diagnoses are made from the medical history. The results of physical examination and the laboratory investigation led to fewer diagnoses, but they were instrumental in excluding certain diagnostic possibilities and in increasing the physicians' confidence in their diagnoses.

Platt FW, Gordon GH (2004). *Field guide to the difficult patient interview (2nd Edition)*. Philadelphia, Lippincott Williams & Wilkins.

DESCRIPTION OF CONTEXT: A concise textbook for medical trainees or those in practice who want practical skills on the approach to a patient-provider interaction.

TOPIC/SCOPE: The book is divided into seven "Parts". The first section focuses on the basic skills necessary for a patient-centered encounter, with particular emphasis on building rapport through the use of empathy, listening skills and nonverbal communication. The subsequent sections build on the complexity of a variety of encounters such as dealing with patient emotions, difficult relationships, delivering bad news, etc. Each section builds on the foundation set in Part I by adding additional interviewing tools and insight into what the patient brings to the encounter.

CONCLUSION/RECOMMENDATIONS: Knowing the person who is the patient is essential to successful patient-provider interactions, particularly in the setting of challenging encounters. Empathy is the "universal tool" on which all providers

should rely and it is the key to establishing rapport. Specific situations may require additional skills but the fundamental patient-centered skills are the key to success in most encounters.

Quill TE, Arnold RM, & Platt F. I wish things were different: Expressing wishes in response to loss, futility, and unrealistic hopes. *Annals of Internal Medicine*, 135(7):551-555, 2001.

Physicians who care for patients encounter many powerful and painful emotions, including anger, sadness, fear, grief, loss, hopelessness, and blame. Many studies suggest that physicians should express empathy in response to emotion-laden patient statements to ensure that patients feel listened to and understood. These physician responses usually consist of efforts to comprehend how things feel to the patient and to express that understanding back to the patient. Situations that evoke loss, guilt, or hopelessness are particularly hard for physicians to respond to empathically. Physicians who think that they have failed a dying patient and who fear depriving the patient of hope may respond by avoiding the topic entirely, by overcompensating with overtreatment, or by apologizing for not “saving” the patient. When a patient expresses overwhelming anger or disappointment with limitations in medicine, physicians may be afraid that any explicit response to the patient's emotion may be construed as evidence of their failure, mistake, or inadequacy. In these challenging situations, we have observed that many physicians attempt to respond empathically by stating “I'm sorry.” This well-intentioned response, although frequently appropriate, may be misinterpreted and misdirected. We have found that saying “I wish...(things were different)” to the patient and family is a more effective initial response. We explicate some of the challenges of saying “I'm sorry” and explore the potential benefits of joining with patients and families and saying “I wish...” in specific, difficult clinical scenarios.

Rabinowitz I, Tamir R, & Reis A. Length of patient's monologue, rate of completion, and relation to other components of the clinical encounter. *British Medical Journal*, 328:501-502, 2004

The patient's opening statement in a consultation (the patient's monologue) is an important part of history taking, and doctors are encouraged not to interrupt the patient—but they often do, probably because they think that the patient's monologue is time consuming. When uninterrupted, patients conclude their monologue in less than 30 seconds in primary care and about 90 seconds in consultant settings. The researchers assessed encounters in primary care that included a new clinical problem, recording the length and rate of completion of patients' monologues before and after instructing doctors not to interrupt.

Rice B. Ten ways to guarantee a lawsuit. *Medical Economics*, 82(13):66-9, July 2005.

This article provides a set of guidelines for clinicians to address the malpractice crisis. The author reminds the reader that the majority of patients who suffer an injury as a result of medical negligence do not end up suing their doctors. Instead, patients that decide to sue their physician are motivated by the nonclinical aspects of the problem, which they view as ineffective communication and subsequent problematic relationships with their physician. The author based the information in the article following interviews with malpractice attorneys—those who work for plaintiffs as well as for doctors—and risk management consultants to come up with a list of guidelines and actions for clinicians to avoid patient complaints and malpractice risk.

Rollnick S, Miller W, & Butler, C. *Motivational interviewing in health care: Helping patients change behavior*. Guilford, 2007.

Much of health care today involves helping patients manage conditions whose outcomes can be greatly influenced by lifestyle or behavior change. Written specifically for health care professionals, this concise book presents powerful tools to enhance communication with patients and guide them in making choices to improve their health, from weight loss, exercise, and smoking cessation, to medication adherence and safer sex practices. Engaging dialogues and vignettes bring to life the core skills of motivational interviewing (MI) and show how to incorporate this brief evidence-based approach into any health care setting. Appendices include MI training resources and publications on specific medical conditions.

Roter DL & Hall JA. *Doctors talking with patients. Patients talking with doctors : Improving communication in medical visits (2nd ed)*. Praeger Publishers, 2006.

This is an excellent review of research on communication between patients and doctors and provides the foundation for an “evidence-based” approach. The next time someone tells you that doctor-talk is simply the art of medicine, refer them to this text.

Roter DL, Hall JA, Merisca, R., Nordstrom, B., Cretin, D., & Svarstad, B. Effectiveness of interventions to improve patient compliance: A meta-analysis. *Medical Care*, 36(8):1138-1161, 1998.

OBJECTIVES: This article summarizes the results of 153 studies published between 1977 and 1994 that evaluated the effectiveness of interventions to improve patient compliance with medical regimens.

METHODS: The compliance interventions were classified by theoretical focus into educational, behavioral, and affective categories within which specific intervention strategies were further distinguished. The compliance indicators broadly represent five classes of compliance-related assessments: (1) health outcomes (e.g., blood pressure and hospitalization), (2) direct indicators (e.g., urine and blood tracers and weight change), (3) indirect indicators (e.g., pill count and refill records), (4) subjective report (e.g., patients' or others' reports), and (5) utilization (appointment making and keeping and use of preventive services). An effect size (ES) r , defined as Fisher's Z transformation of the Pearson correlation coefficient, representing the association between each intervention (intervention versus control) and compliance measure was calculated. Both an unweighted and weighted r were calculated because of large sample size variation, and a combined probability across studies was calculated.

RESULTS: The interventions produced significant effects for all the compliance indicators (combined Z values more than 5 and less than 32), with the magnitude of effects ranging from small to large. The largest effects (unweighted) were evident for refill records and pill counts and in blood/urine and weight change studies. Although smaller in magnitude, compliance effects were evident for improved health outcomes and utilization. Chronic disease patients, including those with diabetes and hypertension, as well as cancer patients and those with mental health problems especially benefited from interventions.

CONCLUSIONS: No single strategy or programmatic focus showed any clear advantage compared with another. Comprehensive interventions combining cognitive, behavioral, and affective components were more effective than single-focus interventions.

Rowland-Morin PA & Carroll JG. Verbal communication skills and patient satisfaction. A study of doctor-patient interviews. *Evaluation of the Health Professions*, 13(2):168-85, June 1990.

This research attempted to quantify specific behaviors in the physician's initial interviewing style and relate them to patients' perception of satisfaction. Five physicians were tape recorded during their initial interviews with 52 adult patients. The patients were asked to complete the Medical Interview Satisfaction Scale, a 29-item instrument with a 7-point response scale. These interviews were transcribed, timed, coded, and analyzed with the use of the Computerized Language Analysis System. Selected variables of the language dimensions were entered as the predictor variables in a multiple regression, along with satisfaction scores as the dependent variables. Twenty-seven percent of the variance (p less than .01) in the satisfaction scores of initial interviews were explained by three aspects of a physician's language style: (a) use of silence or reaction time latency between speakers in an interview, (b) whether there was language reciprocity as determined through the reciprocal use of word-lists, and (c) the reflective use of interruptions within an interview. Considering the complexity of human communication, the fact that three variables were identified, which accounted for 27% of the variance in patients' satisfaction, is considered a substantial finding.

Safran DG, Taira DA, Rogers WH, Kosinski M, Ware JE, & Tarlov AR. Linking primary care performance to outcomes of care. *The Journal of Family Practice*, 47(3):213-220, 1998.

BACKGROUND: Substantial research links many of the defining characteristics of primary care to important outcomes; yet little is known about the relative importance of each characteristic, and several characteristics have not been examined. These analyses evaluate the relationship between seven defining elements of primary care (accessibility, continuity, comprehensiveness, integration, clinical interaction, interpersonal treatment, and trust) and three outcomes (adherence to physician's advice, patient satisfaction, and improved health status).

METHODS: Data were derived from a cross-sectional observational study of adults employed by the Commonwealth of Massachusetts ($N = 7204$). All patients completed a validated questionnaire, the Primary Care Assessment Survey. Regression methods were used to examine the association between each primary care characteristic (11 summary scales measuring 7 elements of care) and each outcome.

RESULTS: Physicians' comprehensive ("whole person") knowledge of patients and patients' trust in their physician were the variables most strongly associated with adherence, and trust was the variable most strongly associated with patients' satisfaction with their physician. With other factors equal, adherence rates were 2.6 times higher among patients with whole-person knowledge scores in the 95th percentile compared with the 5th percentile (44.0% adherence vs. 16.8% adherence, $P < .001$). The likelihood of complete satisfaction was 87.5% for those with 95th percentile trust scores compared with 0.4% for patients with 5th percentile trust scores ($P < .001$). The leading correlates of self-reported health improvements were integration of care, thoroughness of physical examinations, communication, comprehensive knowledge of patients, and trust ($P < .001$).

CONCLUSIONS: Patients' trust in their physician and physicians' knowledge of patients are leading correlates of three important outcomes of care. The results are noteworthy in the context of pervasive changes in our nation's health care system that are widely viewed as threatening to the quality of physician-patient relationships.

Stewart M, Brown JB, Donner A, McWhinney IR, Oates J, Weston WW & Jordan J. The impact of patient-centered care on outcomes. *The Journal of Family Practice*, 49(9):796-804, 2000.

OBJECTIVE: To assess the association between patient-centered communication in primary care visits and subsequent health and medical care utilization.

DESIGN: Observational cohort study. Setting: Family Practices in London, Ontario, Canada and surrounding area.

Subjects: 39 randomly selected family physicians (71.8% male, mean year of graduation was 1975); 315 patients (54% female, 60.3% married).

INTERVENTION: None.

MEASURES: Outcomes measured included: 1) Patient's health, assessed by a visual analogue scale (VAS) on symptom discomfort and concern. 2) Self-report of health, using the Medical Outcomes Study Short Form-36 (multi-dimensional assessment). 3) Medical care utilization variables of diagnostic tests, referrals, and visits to the family physician, assessed by chart review. Office visits of the medical encounters were audio taped and scored for patient-centered communication (score based on 3 of the 6 components of the model of patient-centered medicine). In addition, patients were asked for their perceptions of the patient-centeredness of the visit (series of 14 times were used to assess patients' post-encounter perceptions of how patient centered the interaction had been).

RESULTS: Patient-centered communication scores were significantly correlated with the patients' perceptions of finding common ground. The total score of patients' perceptions that the visit was patient-centered was associated with positive health outcomes. Patients who perceived that their visit had been patient centered received fewer diagnostic tests and referrals in the subsequent two months.

CONCLUSIONS/RECOMMENDATIONS: Patient-centered communication influences patients' health through perceptions that their visit was patient centered, and especially through perceptions that common ground was achieved with the physician. Patient-centered practice was associated with improved health status (less discomfort, less concern, and better mental health) and increased efficiency of care (fewer diagnostic tests and referrals). This finding is a concern for medical education and health care policy in that the patients' experience of being a participating member in the discussion of the problem and treatment process may translate into the patients' reduced need for further investigation or referral.

Tabor PA, & Lopez DA. Comply with us: Improving medication adherence. *Journal of Pharmacy Practice*, 17(3):167-181, 2004.

Medication noncompliance is a pervasive problem resulting in significant morbidity and mortality. There are many terms used to describe medication-taking behavior including compliance, adherence, intelligent compliance, and drug forgiveness. More recently, clinicians have focused on the need for a collaborative partnership with patients to attain medication adherence. Problems identified include the patient's failing

to initiate therapy, underusing or overusing a drug, stopping a drug too soon, and mistiming or skipping doses. Adherence to medications is a complex health behavior. There are many risk factors associated with decreased compliance, and many strategies have been shown to improve drug-taking behavior and patient outcomes. By careful assessment, the pharmacist can identify the high-risk patient, recommend an individualized care plan, and provide the follow-up necessary to successfully change patient behavior. Pharmacists should focus on improving their own application of behavior modification principles and patient communication skills. Improved medication compliance results in improved humanistic, clinical, and economic outcomes.

Tai-Seale M, Bramson R, & Bao X. Decision or no decision: How do patient-physician interactions end and what matters? *Journal of General Internal Medicine*, 22(3):297-302, March 2007.

BACKGROUND: A clearly stated clinical decision can induce a cognitive closure in patients and is an important investment in the end of patient-physician communications. Little is known about how often explicit decisions are made in primary care visits.

OBJECTIVE: To use an innovative videotape analysis approach to assess physicians' propensity to state decisions explicitly, and to examine the factors influencing decision patterns.

DESIGN: We coded topics discussed in 395 videotapes of primary care visits, noting the number of instances and the length of discussions on each topic, and how discussions ended. A regression analysis tested the relationship between explicit decisions and visit factors such as the nature of topics under discussion, instances of discussion, the amount of time the patient spoke, and competing demands from other topics.

RESULTS: About 77% of topics ended with explicit decisions. Patients spoke for an average of 58 seconds total per topic. Patients spoke more during topics that ended with an explicit decision, (67 seconds), compared with 36 seconds otherwise. The number of instances of a topic was associated with higher odds of having an explicit decision (OR = 1.73, $p < 0.01$). Increases in the number of topics discussed in visits (OR = 0.95, $p < .05$), and topics on lifestyle and habits (OR = 0.60, $p < .01$) were associated with lower odds of explicit decisions.

CONCLUSIONS: Although discussions often ended with explicit decisions, there were variations related to the content and dynamics of interactions. We recommend strengthening patients' voice and developing clinical tools, e.g., an "exit prescription," to improving decision making.

The Commonwealth Fund 2001 Health Care Quality Survey, Retrieved on August 26, 2008, from http://www.cmwf.org/surveys/surveys_show.htm?doc_id=228171

This survey reveals that on a wide range of health care quality measures—including effective patient–physician communication and access to health care and insurance coverage—minority Americans do not fare as well as whites. African Americans, Asian Americans, and Hispanics are more likely than whites to experience difficulty communicating with their physician, to feel that they are treated with disrespect when receiving care, to experience barriers to care such as lack of insurance or not having a regular doctor, and to feel they would receive better care if they were of a different race or ethnicity.

MODE OF ADMINISTRATION: The Commonwealth Fund 2001 Health Care Quality Survey was a telephone survey conducted in English, Spanish, Mandarin or Cantonese, Vietnamese and Korean.

SURVEY SAMPLE DESIGN: A stratified minority sample design was used. The survey employed standard list-assisted random-digit dialing methods, and telephone numbers from area code-exchange combinations with higher-than-average densities of minority households were drawn disproportionately.

PRIMARY SURVEY CONTENT: The survey collected current information on the health care experiences of respondents, including information on health status, use of preventive services, access-to-care issues, experiences with the doctor-patient encounter, communication, health literacy, and compliance.

POPULATION TARGETED: The survey is a nationally representative survey of the U.S. adult population age 18 and older. In addition, the survey allows separate analyses of responses by African-American, Hispanic and Asian households.

Demographic Data: Age, gender, race, ethnicity, country of birth, region, primary language spoken, insurance coverage, employment status, marital status, and household composition.

YEARS COLLECTED: 2001

Thom DH, & Stanford Trust Study Physicians. Physician behaviors that predict patient trust. *The Journal of Family Practice*, 50(4):323-328, 2001.

OBJECTIVE: The goal for this study was to assess the relative strength of the association between physician behaviors and patient trust.

STUDY DESIGN AND POPULATION: Patients (N=414) enrolled from 20 community-based family practices rated 18 physician behaviors and completed the Trust in Physician Scale immediately after their visits. Trust was also measured at 1 and 6 months after the visit. The association between physician behaviors and trust was examined in regard to patient sex, age, and length of relationship with the physician.

RESULTS: All behaviors were significantly associated with trust ($P < .0001$), with Pearson correlation coefficients (r) ranging from 0.46 to 0.64. Being comforting and caring, demonstrating competency, encouraging and answering questions, and explaining were associated with trust among all groups. However, referring to a specialist if needed was strongly associated with trust only among women ($r = 0.61$), more established patients ($r = 0.62$), and younger patients ($r = 0.63$). The behaviors least important for trust were gentleness during the examination, discussing options/asking opinions, looking in the eye, and treating as an equal.

CONCLUSIONS: Caring and comfort, technical competency, and communication are the physician behaviors most strongly associated with patient trust. Further research is needed to test the hypothesis that changes in identified physician behaviors can lead to changes in the level of patient trust.

Wilson IB, Schoen C, Neuman P, Strollo MK, Rogers WH, Chang H, & Safran DG. Physician–patient communication about prescription medication nonadherence: A 50-state study of America’s seniors. *Journal of General Internal Medicine*, 22(1):6-12, January 2007.

CONTEXT: Understanding and improving the quality of medication management is particularly important in the context of the Medicare prescription drug benefit that took effect last January 2006.

OBJECTIVE: To determine the prevalence of physician-patient dialogue about medication cost and medication adherence among elderly adults nationwide.

DESIGN: Cross-sectional survey.

PARTICIPANTS: National stratified random sample of community-dwelling Medicare beneficiaries aged 65 and older.

MAIN OUTCOME MEASURES: Rates of physician-patient dialogue about nonadherence and cost-related medication switching.

RESULTS: Forty-one percent of seniors reported taking five or more prescription medications, and more than half has 2 or more prescribing physicians. Thirty-two percent overall and 24% of those with 3 or more chronic conditions reported not having talked with their doctor about all their different medicines in the last 12 months. Of seniors reporting skipping doses or stopping a medication because of side effects or perceived nonefficacy, 27% had not talked with a physician about it. Of those reporting cost-related nonadherence, 39% had not talked with a physician about it. Thirty-eight percent of those with cost-related nonadherence reported switching to a lower priced drug, and in a multivariable model, having a discussion about drug cost was significantly associated with this switch (odds ratio [OR] 5.04, 95% confidence interval [CI] 4.28-5.93, $P < .001$).

CONCLUSIONS: We show that there is a communication gap between seniors and their physicians around prescription medications. This communication problem is an important quality and safety issue, and takes on added salience as physicians and patients confront new challenges associated with coverage under new Medicare prescription drug plans. Meeting these challenges will require that more attention be devoted to medication management during all clinical encounters.

Wolff JL, & Roter DL. Hidden in plain sight: Medical visit companions as a resource for vulnerable older adults. *Archives of Internal Medicine*, 168(13):1409-1415, 2008.

BACKGROUND: Sicker patients are less satisfied with the quality of health care they receive than their healthier counterparts. METHODS: A sample of 12 018 community-dwelling Medicare beneficiaries 65 years or older from the 2004 Medicare Current Beneficiary Survey was studied. Multivariate regression was used to describe whether beneficiaries' self-reported satisfaction with their usual-care physician was related to the presence or functions assumed by visit companions.

RESULTS: Overall, 38.6% of beneficiaries reported being typically accompanied to routine medical visits. Accompanied beneficiaries were older, less educated, and in worse health than their unaccompanied counterparts. More than 60% of companions facilitated visit communication by recording physician instructions (44.1%), providing information regarding patients' medical conditions or needs (41.6%), asking questions (41.1%), or explaining physicians' instructions (29.7%). After controlling for sociodemographic and health differences, accompanied beneficiaries were more highly satisfied with their physician's technical skills (odds ratio [OR], 1.15; 95% confidence interval [CI], 1.02-1.30), information giving (OR, 1.19; 95% CI, 1.05-1.35), and interpersonal skills (OR, 1.18; 95% CI, 1.03-1.35) than unaccompanied beneficiaries. Accompanied beneficiaries whose visit companions were more actively engaged in communication rated physician information giving (OR, 1.42; 95% CI, 1.14-1.77) and interpersonal skills (OR, 1.29; 95% CI, 1.05-1.59) more favorably. This relationship was strongest among beneficiaries with the worst self-rated health.

CONCLUSIONS: Visit companions are commonly present in older adults' routine medical encounters, actively engaged in care processes, and influential to patients' satisfaction with physician care. More systematic recognition and integration of visit companions in health care processes may benefit quality of care for a particularly vulnerable patient population.

II. Clinician-Patient Communication in the Emergency Department

Allen MH, Carpenter D, Sheets JL, Miccio S, & Ross R. What do consumers say they want and need during a psychiatric emergency? *Journal of Psychiatric Practice*. 9(1):39-58, January 2003.

Behavioral emergencies are a common and serious problem for consumers, their families and communities, and the healthcare providers on whom they rely for help. In recent years, serious concerns about the management of behavioral and psychiatric emergencies—in particular, the misapplication and overuse of physical and chemical restraints and seclusion—have become a focus of attention for mental health professionals and policy makers as well as for the lay public, the media, and patient advocacy organizations. Policy leaders and clinicians are searching for ways to balance the rights of consumers with considerations of safety and good care in an area in which it is difficult to conduct research. A survey of mental health professionals who are experts on the treatment of psychiatric and behavioral emergencies identified consumer input and collaboration between patient and clinician whenever possible as being extremely important in achieving the best short-term and particularly the best long-term outcomes for patients. The survey of consumer perspectives described in this article was undertaken in response to the need to better understand consumer experiences and preferences. The authors describe four emergency services forums conducted in 2002, which involved a total of 59 consumers. Each forum involved a written consumer survey as well as a workshop to develop and prioritize recommendations for improving psychiatric emergency care. The authors present the results of the consumer survey and summarize the top recommendations from the workshops. In both the survey and the workshops, the consumers repeatedly stressed the importance of having staff treat them with respect, talk to them, listen to them, and involve them in treatment decisions. There were a number of important areas of agreement between the recommendations of the consumer panel and those of the experts in emergency psychiatry surveyed for the Expert Consensus Guidelines on the Treatment of Behavioral Emergencies. These include the desirability of verbal interventions, the use of a collaborative approach, and the use of oral medications guided by the individual consumer's problems, medication experiences, and preferences. The majority of the consumer panel reported adverse experiences with general hospital emergency rooms and, in fact, called for the development of specialized psychiatric emergency services such as those recommended in the Expert Consensus Guidelines. One-fifth of the consumer panel attributed their emergency contact to lack of access to more routine mental health care. The consumers clearly do not reject medications categorically. Almost half indicated that they wanted medications and a similar number indicated benefit from medications, although many complained of forced administration and unwanted side effects. The consumer panel preferred benzodiazepines and ranked haloperidol as a least preferred option. Among their key recommendations for improving psychiatric emergency care, the consumer panel stressed the development of alternatives to traditional emergency room services, the increased use of advance directives, more comfortable physical environments for waiting and treatment, increased use of peer support services, improved training of emergency staff to foster a more humanistic and person-centered approach, increased

collaboration between practitioners and patients, and improved discharge planning and post-discharge follow-up. The implications of these findings for improving psychiatric emergency care are considered.

Austin PE, Matlack, R, Dunn KA, Kesler C, & Brown CK. Discharge instructions: Do illustrations help our patients understand them? *Annals of Emergency Medicine*, 25(3):317-320, 1995.

STUDY OBJECTIVE: To determine whether the addition of illustrations to discharge instructions improves patient comprehension.

DESIGN: Randomized, blinded, prospective study. A blinded investigator asked a series of questions designed to test the participant's comprehension of the discharge instructions. There were 10 possible correct responses.

SETTING: Emergency department of a rural Level I trauma center.

PARTICIPANTS: Convenience sample of 101 patients discharged with the diagnosis of laceration.

INTERVENTIONS: Patients were randomly assigned to receive discharge instructions with (n=54) or without (n=47) illustrations.

RESULTS: The median number of correct responses was five. Patients with illustrations were 1.5 times more likely to choose five or more correct responses than those without illustrations (65% versus 43%; $P = .033$). The effect of illustrations varied by demographic group. Among nonwhites (n=51), patients with illustrations were more than twice as likely to choose five or more correct responses ($P = .032$). Among patients with no more than a high school education (n=71), patients with illustrations were 1.8 times more likely to choose five or more correct responses ($P = .038$). Among women (n=48), patients with illustrations were 1.7 times more likely to choose five or more correct responses ($P = .006$).

CONCLUSION: The addition of illustrations to discharge instructions for patients who have sustained lacerations improves patient comprehension. There is a large effect among patients who are nonwhite, female, or have no more than a high school education.

Baillargeon J, Thomas C, Williams B, Begley C, Sharma S, Pollock B, Murray OJ, Pulvino J, & Raimer B. Medical emergency department utilization patterns among uninsured patients with psychiatric disorders. *Psychiatric Services*. 59(7):808-811, July 2008.

OBJECTIVE: This study examined medical emergency department utilization for patterns among uninsured patients with psychiatric disorders.

METHODS: Billing records of 15,672 uninsured adult patients treated in the emergency department of an academic medical center in southeast Texas over a 12-month period were analyzed for information on demographic characteristics, diagnosis, number of emergency department visits, and hospitalization.

RESULTS: Overall, 11.8% of the population was diagnosed as having at least one psychiatric disorder during an emergency department visit. Patients with psychiatric disorders had an increased risk of having multiple emergency department visits and hospitalization compared with patients without psychiatric disorders. The risk of multiple emergency department visits was particularly high for patients with either bipolar disorder or psychotic disorders.

CONCLUSIONS: Uninsured patients with psychiatric disorders appear to be heavy users of medical emergency department services. These findings may be helpful in developing more efficient strategies to serve the mental health needs of the uninsured.

Barger LK, Ayas NT, Cade BE, Cronin J.W., Rosner B., Speizer F.E., & Czeisler C.A. Impact of extended-duration shifts on medical errors, adverse events, and attentional failures. *PLoS Medicine*, 3(12): 2440-2448, December 2006.

BACKGROUND: A recent randomized controlled trial in critical-care units revealed that the elimination of extended-duration work shifts ([greater-than or equal to]24 h) reduces the rates of significant medical errors and polysomnographically recorded attentional failures. This raised the concern that the extended-duration shifts commonly worked by interns may contribute to the risk of medical errors being made, and perhaps to the risk of adverse events more generally. Our current study assessed whether extended-duration shifts worked by interns are associated with significant medical errors, adverse events, and attentional failures in a diverse population of interns across the United States.

METHODS AND FINDINGS: We conducted a Web-based survey, across the United States, in which 2,737 residents in their first postgraduate year (interns) completed 17,003 monthly reports. The association between the number of extended-duration shifts worked in the month and the reporting of significant medical errors, preventable adverse events, and attentional failures was assessed using a case-crossover analysis in which each intern acted as his/her own control. Compared to months in which no extended-duration shifts were worked, during months in which between one and four extended-duration shifts and five or more extended-duration shifts were worked, the odds ratios of reporting at least one fatigue-related significant medical error were 3.5 (95% confidence interval [CI], 3.3-3.7) and 7.5 (95% CI, 7.2-7.8), respectively. The respective odds ratios for fatigue-related preventable adverse events, 8.7 (95% CI, 3.4-22) and 7.0 (95% CI, 4.3-11), were also increased. Interns working five or more extended-duration shifts per month reported more attentional failures during lectures, rounds, and clinical activities, including surgery and reported 300% more fatigue-related preventable adverse events resulting in a fatality.

CONCLUSIONS: In our survey, extended-duration work shifts were associated with an increased risk of significant medical errors, adverse events, and attentional failures in interns across the United States. These results have important public policy implications for postgraduate medical education

Benger JR & Jones V. Why are we here? A study of patient actions prior to emergency hospital admission. *Emergency Medicine Journal*. 25(7):424-427, July 2008.

INTRODUCTION: Emergency department (ED) attendances and subsequent hospital admissions are rising in the United Kingdom. The reasons for this are unclear but may relate to recent changes in primary care and public perception. The actions taken by patients or their relatives before emergency hospital admission, the reasons for these actions and their outcome were determined.

METHODS: Adult patients admitted to an inner city teaching hospital with a medical or surgical illness were interviewed using a semistructured questionnaire. Data were collected and analyzed regarding the actions taken before arrival at hospital, the reasons for taking these actions, their outcome and future intentions. 200 patients were interviewed.

RESULTS: Direct attendance at the ED was more common when help was sought by bystanders or persons known only slightly to the patient ($p = 0.03$). 57 patients (28.5%) attended the ED directly, 45 of whom dialed 999 for an emergency ambulance. Most patients who attended the ED directly did so as a result of the perceived severity or urgency of their condition and there was incomplete awareness of the out-of-hours GP service.

CONCLUSION: The majority of adult patients who are admitted to hospital with an acute illness seek professional help from primary care in the first instance. Those who attend the ED generally perceive their problem as more urgent or severe, or have an ambulance called on their behalf. The shift towards ED care appears partly driven by changes in general practice and unfamiliarity with the new arrangements for out-of-hours primary care provision.

Bernstein, J, Bernstein, E, Dave, A, James, T, Mitchell, P, Safi, C, et al. Trained medical interpreters in the emergency department: Effects on services, subsequent charges, and follow-up. *Journal of Immigrant Health*, 4(4):171-176, 2002.

This retrospective chart review investigated the impact of interpreter services at Boston Medical Center on the intensity of emergency department services, utilization and charges. The medical records of all 26,573 patients who were seen in the emergency department during a five-month period were reviewed. Five hundred patients met the inclusion criteria, which included presenting symptoms of chest pain, shortness of breath, abdominal pain, headache, or pelvic pain in non-pregnant women. Demographic data (age, sex, ethnicity, etc.), measures of clinical acuity and patient disposition (e.g. discharge or admission to the hospital) were also recorded. Only patients who spoke English, Spanish, Haitian Creole, or Portuguese Creole were included. Language data was obtained from the emergency department registration form on which clerks entered patient self-reported primary language and whether the patient was comfortable speaking English. Interpreter Service billing records were reviewed to identify which patients received professional medical interpretation. Utilization and charge data were then collected for the 30-day follow-up period after the initial index visit. No other medical facilities were included in the study. Non-interpreted patients (NIP) who did not speak English had the shortest emergency department stays and the fewest tests, intravenous catheters and medications, while English-speaking patients (ESP) had the most services, the longest stays (an average of 3 hours longer) and the most charges. In post-discharge follow-up, interpreted patients received significantly more primary care and specialty clinic referrals than did either NIP or ESP; were more likely to follow-up in clinic than NIP; were less likely than NIP to return to the emergency department; and had the lowest charges from both clinic visits and emergency department returns of all three groups. Use of a professional interpreter may result in improved quality and lower cost of follow up care for limited English proficient patients seen in the emergency department.

Boudreaux ED, Ary RD, Mandry C.V., & McCabe B . Determinants of patient satisfaction in a large, municipal ED: The role of demographic variables, visit characteristics, and patient perceptions. *American Journal of Emergency Medicine*, 18(4): 394-400, 2000.

We investigated predictors of patient satisfaction in a large, municipal emergency department (ED). Patients were telephoned 10 days postvisit, and satisfaction was assessed using a structured survey with 22 items measuring several domains, as well as the estimated length of stay. The dependent variables consisted of ratings of overall satisfaction and likelihood of recommending the ED to others. Data were obtained from 437 (38.7%) patients. Univariate statistics revealed strong relations between indicators of perceived care and both dependent variables, with weaker and mixed findings pertaining to demographics and visit characteristics. The final logistic regression predicting overall satisfaction included the following items ($P < .05$): degree to which staff cared for the patient as a person, perceptions of safety, understandability of discharge instructions, nurse's technical skills, and satisfaction with wait for physician. Likelihood to recommend was associated with ($P < .05$): degree to which staff cared for the patient as a person, understandability of discharge instructions, perceptions of safety, age, and insurance status. Patients' perceptions of care, rather than demographics and visit characteristics, most consistently predicted satisfaction. However, differences were observed between the specific predictors for overall satisfaction and likelihood to recommend, providing a possible explanation for inconsistencies observed in the literature.

Boudreaux ED, D'Autremont S, Wood K, Jones GN. Predictors of emergency department patient satisfaction: Stability over 17 months. *Academic Emergency Medicine*. 11(1):51-8, January 2004

OBJECTIVES: The contradictory findings reported in the emergency department (ED) patient satisfaction literature may be due to methodologic differences between studies, as well as actual differences in predictors. The authors examined the stability of predictors of ED patient satisfaction across multiple assessments over 17 months.

METHODS: All patients who presented for emergency care to the authors' hospital during four designated time periods spanning 17 months were eligible. The participants were contacted by telephone and the following were assessed: demographics, visit characteristics, perceived waiting times, subjective quality of care indicators, and overall satisfaction. The authors computed logistic regressions to predict overall satisfaction for each of the four periods. They compared the results across the assessments, both visually and using an aggregated logistic regression, to determine the consistency of the final equations. Interpretations based on traditional p-value cut-offs and odds ratios (ORs) were compared.

RESULTS: When using a p-value cut-off strategy of $p < 0.05$, notable discrepancies in the predictors of overall satisfaction were common. Six indicators, including age, perceived wait before bed placement, perceived wait before physician evaluation, physician care, discharge instructions, and waiting time satisfaction, were statistically associated with satisfaction for only one of the four assessments. In contrast, examining the size of the ORs associated with each predictor showed far fewer discrepancies. Only physician care appeared to have large differences in the strength of its relation to overall satisfaction. This trend was confirmed by the aggregated logistic regression analysis.

CONCLUSIONS: Using p-value cut-offs as the sole criterion for interpreting which variables are most important in determining ED patient satisfaction is ill-advised, and may lead to spurious conclusions of discrepant findings. Nevertheless, some determinants of ED satisfaction likely differ meaningfully based on the cohort that is being examined. Overgeneralizing conclusions derived from a single ED patient satisfaction study should be avoided, especially those studies that are cross-sectional and use a single site.

Boudreaux ED, Friedman J, Chansky ME, Baumann BM. Emergency department patient satisfaction: Examining the role of acuity. *Academic Emergency Medicine*. 11(2):162-8, February 2004

OBJECTIVES: To explore the relationships between patient acuity, perceived and actual throughput times, and emergency department (ED) patient satisfaction. The authors hypothesized that high-acuity patients would be the most satisfied with their throughput times, as well as the overall ED visit. The authors also expected overall ED satisfaction to be more strongly associated with perceived throughput times compared with actual throughput times, regardless of acuity.

METHODS: This was a prospective survey of 1,865 ED patients at a large, inner-city hospital during a one-month period. Data were collected on patient demographics, acuity of patient illness, actual waiting time for evaluation by a physician, and actual overall length of stay. Patient satisfaction with various throughput times (i.e., perceived throughput time) and overall ED visit was assessed by using a seven-point scale (1 = poor, 7 = excellent). Analysis of variance, analysis of covariance (ANCOVA), and correlations were conducted to explore the hypotheses.

RESULTS: Patients with "emergent" acuity perceived their throughput times more favorably and were more satisfied with their overall ED visit compared with "urgent" and "routine" patients (all $p < 0.01$). Once the effects of perceived throughput time were controlled for by using an ANCOVA, acuity no longer predicted overall ED satisfaction. Correlations showed that overall ED satisfaction was more closely linked to perceived throughput times than to actual throughput times (average $r = 0.62$ vs. -0.12).

CONCLUSIONS: "Emergent" patients are more satisfied than "urgent" and "routine" patients with their ED visits. "Emergent" patients perceived their throughput times more favorably than other patients, especially their wait for physician evaluation. Changing perceptions of throughput times may yield larger improvements in satisfaction than decreasing actual throughput times, regardless of patient acuity.

Braun T, Garcia Castrillo-Riesgo L, Krafft T, & Diaz-Reganon VG. [Use of emergency medical service and sociodemographic factors]. [Spanish] Frecuentacion del servicio de urgencias y factores sociodemograficos. *Gaceta Sanitaria*. 16(2):139-44, March/April 2002.

OBJECTIVES: Health resources utilization is related to health conditions and to the population's sociodemographic characteristics. Low socioeconomic groups show increased utilization of certain resources. Emergency department utilization could also be affected by socioeconomic factors. The aim of this study was to identify differences in emergency department utilization among different socioeconomic groups.

MATERIAL AND METHODS: A population-based study was performed. Census sections of the city of Santander in Spain were grouped according to sociodemographic variables (age, educational and professional attainment). Areas of the city with similar socioeconomic characteristics were established by cluster analysis. The place of residence of patients visiting the emergency department of the Hospital Marques de Valdecilla was identified and the utilization rate was calculated for each cluster.

Results: Cluster analysis was able to identify four different groups, each with different socioeconomic characteristics, which were closely related to the districts of Santander. Comparison of clusters 1 and 4 showed that increased emergency

department utilization was found amongst groups with lowest socioeconomic status and higher mean age, with an odds ratio of 1.91 (95% CI: 1.73-2.1). Patients from higher socioeconomic groups were more likely to be admitted to hospital while those from lower socioeconomic groups made more repeat visits to the emergency department.

CONCLUSION: Emergency department utilization is affected by the sociodemographic characteristics of patients' area of residence. Patients with lower socioeconomic status show greater use of the emergency department.

Brown AD, Sandoval GA, Levinton C, & Blackstien-Hirsch P. Developing an efficient model to select emergency department patient satisfaction improvement strategies. *Annals of Emergency Medicine.* 46(1):3-10, July 2005.

STUDY OBJECTIVE: Patient satisfaction is an important performance measure for emergency departments (EDs), but the most efficient ways of improving satisfaction are unclear. This study uses optimization techniques to identify the best possible combination of predictors of overall patient satisfaction to help guide improvement efforts.

METHODS: The results of a satisfaction survey from 20,500 patients who visited 123 EDs were used to develop ordinal logistic regression models for overall quality of care, overall medical treatment, willingness to recommend the ED to others, and willingness to return to the same ED. Originally, 68,981 surveys were mailed, and 20,916 were returned, representing an overall response rate of 30.3%. We then incorporated these regressions into an optimization model to select the most efficient combination of predictors necessary to increase the 4 overall satisfaction measures by 5%. A sensitivity analysis was also conducted to explore differences across hospital peer groups and regions.

RESULTS: Results differ slightly for each of the 4 overall satisfaction measures. However, 4 predictors were common to all of these measures: "perceived waiting time to receive treatment," "courtesy of the nursing staff," "courtesy of the physicians," and "thoroughness of the physicians." The selected predictors were not necessarily the strongest predictors identified through regression models. The optimization model suggests that most of these predictors must be improved by 15% to increase the overall satisfaction measures by 5%.

CONCLUSION: This study introduces the use of optimization techniques to study ED patient satisfaction and highlights an opportunity to apply this technique to widely collected data to help inform hospitals' improvement strategies. The results suggest that hospitals should focus most of their improvement efforts on the 4 predictors mentioned above.

Byrne G, Richardson M, Brunson J, & Patel A. Patient satisfaction with emergency nurse practitioners in A & E. *Journal of Clinical Nursing,* 9(1): 83-92, January 2000.

In recent years the complex process of managing services for patients requiring emergency care has been increasingly under scrutiny and considerable diversity has arisen in the organization of emergency care in both hospital and community settings. One innovation which has been particularly widespread is the development of Emergency Nurse Practitioners (ENPs): experienced Accident and Emergency nurses who assume entire responsibility for patients with minor injuries, in emergency settings. The present paper reports on a study which compared patients' satisfaction with care given by Emergency Nurse Practitioners with that provided by doctors and nurses working together in a traditional A & E. Patients were significantly more likely to have received health education and first aid advice from an ENP than from a doctor. They were also significantly more likely to have been given written instructions to take home and told whom to contact if they needed more help and advice following discharge. Those seen by an ENP also reported that they were subsequently significantly less worried about their health, than did patients seen in a traditional A & E.

Calvin AO, Frazier L, & Cohen MZ. Examining older adults' perceptions of health care providers: identifying important aspects of older adults' relationships with physicians and nurses. Older adults want to feel cared for, respected, and informed. *Journal of Gerontological Nursing.* 33(5):6-12, May 2007.

This article describes older adults' conversations about their relationships with health care providers. Focus group participants (N = 23) were from three ethnic groups (Black, White, and Hispanic) and ages 53 to 92. All but three of the participants were women. Content analysis revealed an overarching theme of genuine caring and three sub-themes: interest in patients' well-being, respectful dialogue, and sharing of information. Older adults' perceptions of genuine caring by physicians and nurses did not differ by ethnicity. Older adults want to engage in a caring, respectful, and educational relationship with their health care providers, which is consistent with fundamental professional values.

Carrasquillo O, Orav EJ, Brennan TA, & Burstin HR. Impact of language barriers on patient satisfaction in an emergency department. *Journal of General Internal Medicine.* 14(2): 82-7, 1999.

OBJECTIVE: To examine patient satisfaction and willingness to return to an emergency department (ED) among non-English speakers.

DESIGN: Cross-sectional survey and follow-up interviews 10 days after ED visit.

SETTING: Five urban teaching hospital EDs in the Northeastern United States.

PATIENTS: We surveyed 2,333 patients who presented to the ED with one of six chief complaints.

MEASUREMENTS AND RESULTS: Patient satisfaction, willingness to return to the same ED if emergency care was needed, and patient-reported problems with care were measured. Three hundred fifty-four (15%) of the patients reported English was not

their primary language. Using an overall measure of patient satisfaction, only 52% of non-English-speaking patients were satisfied as compared with 71% of English speakers ($p < .01$). Among non-English speakers, 14% said they would not return to the same ED if they had another problem requiring emergency care as compared with 9.5% of English speakers ($p < .05$). In multivariate analysis adjusting for hospital site, age, gender, race/ethnicity, education, income, chief complaint, urgency, insurance status, Medicaid status, ED as the patient's principal source of care, and presence of a regular provider of care, non-English speakers were significantly less likely to be satisfied (odds ratio [OR] 0.59; 95% confidence interval [CI] 0.39, 0.90) and significantly less willing to return to the same ED (OR 0.57; 95% CI 0.34, 0.95). Non-English speakers also were significantly more likely to report overall problems with care (OR 1.70; 95% CI 1.05, 2.74), communication (OR 1.71; 95% CI 1.18, 2.47), and testing (OR 1.77; 95% CI 1.19, 2.64).

CONCLUSIONS: Non-English speakers were less satisfied with their care in the ED, less willing to return to the same ED if they had a problem they felt required emergency care, and reported more problems with emergency care. Strategies to improve satisfaction among this group of patients may include appropriate use of professional interpreters and increasing the language concordance between patients and providers.

Chaput YJA, & Lebel MJ. Demographic and clinical profiles of patients who make multiple visits to psychiatric emergency services. *Psychiatric Services*. 58(3):335-341, March 2007.

OBJECTIVE: The study identified clinical and sociodemographic characteristics of patients making multiple visits to a psychiatric emergency service.

METHODS: Information was obtained for patients visiting a hospital psychiatric emergency service in Montreal from 1985 to 2000. Profiles were determined for four groups: one visit, two visits, three to ten visits, and 11 or more visits. To determine whether the profile for those with 11 or more visits was generalizable, data for patients visiting the main site and three other such services from 2002 to 2004 were similarly analyzed.

RESULTS: At the main study site (1985 to 2000), patients with single visits accounted for 36% of the 29,569 visits. The 292 patients with 11 or more visits accounted for almost 21% of total visits. Timing of the visit-time of day and day of the week did not differentiate between groups. However, time itself was important in identifying patients with 11 or more visits: use of 30-month observation periods resulted in identification of only 8% of this group. Patients with 11 or more visits were more likely to be diagnosed as having schizophrenia and as having a comorbid diagnosis and were generally younger at the index visit and more economically impaired than those in the other groups. Overall, and at two of the three other sites, schizophrenia was overrepresented in the highest user group.

CONCLUSIONS: Most visits to the psychiatric emergency service were made by frequent users who had distinctive profiles, which are potentially useful for developing clinical strategies to reduce the impact of this patient group on this service.

Chisholm CD, Dornfeld A, Nelson D, & Cordell W. Work interrupted: A comparison of workplace interruptions in emergency departments and primary care offices. *Annals of Emergency Medicine*. 38(2):146-151, August 2001.

STUDY OBJECTIVE: We sought to determine the number of interruptions and to characterize tasks performed in emergency departments compared with those performed in primary care offices.

METHODS: We conducted an observational time-motion, task-analysis study in 5 nonteaching community hospitals and 22 primary care offices in 5 central Indiana cities. Twenty-two emergency physicians and 22 office-based primary care physicians (PCPs) were observed at work. The number of interruptions, tasks, simultaneous tasks, and patients concurrently managed were recorded in 1-minute increments during 150- to 210-minute observation periods.

RESULTS: Emergency physicians were interrupted an average of 9.7 times per hour compared with 3.9 times per hour for PCPs, for an average difference of 5.8 times per hour (95% confidence interval [CI] 4.2 to 7.4). PCPs spent an average of 11.4 minutes per hour performing simultaneous tasks compared with 6.4 minutes per hour for emergency physicians (average difference, 5.0 minutes; 95% CI 1.2 to 8.8). Emergency physicians spent an average of 37.5 minutes per hour managing 3 or more patients concurrently compared with 0.9 minutes per hour for PCPs. PCPs spent significantly more time performing direct patient care, and emergency physicians spent significantly more time analyzing data, charting, and taking reports on patients.

CONCLUSION: Emergency physicians experienced more interruptions and managed more patients concurrently than PCPs. PCPs spent more time performing simultaneous tasks than emergency physicians. Our study suggests there are important ergonomic differences between emergency medicine and office-based primary care work environments that may require different training approaches, design considerations, and coping strategies.

Choi S, Ahn J, Lee D, & Jung Y. The effectiveness of mobile discharge instruction videos (MDIVs) in communicating discharge instructions to patients with lacerations or sprains. *Southern Medical Journal*. 102(3):239-247, March 2009.

OBJECTIVE: This study evaluates the effectiveness of mobile discharge instruction videos (MDIVs) in communicating discharge instructions to patients with lacerations or sprains.

METHOD: A prospective controlled study was performed on patients with lacerations or sprains in a quaternary emergency center from April 1, 2008 to May 31, 2008. Upon discharge, patients were systematically allocated to receive printed

discharge instructions (PDIs) or MDIVs. Within 48 hours of the patients' discharge, a standard questionnaire was provided via telephone to evaluate the patients' comprehension of, convenience rating for, and satisfaction with their given discharge instructions.

RESULTS: Of the 645 patients with lacerations or sprains during the study period, a convenience sample of 161 patients was enrolled in the study; 77 in the PDIs group (the P group) and 84 in the MDIVs group (the M group). There were no statistically significant differences in the ages, genders, and levels of education of the subjects in the two groups. The mean of the correct answers on wound care in the questionnaire was 2.7 +/- 0.7 in the M group and 2.4 +/- 0.8 in the P group ($P < 0.05$). The convenience rating was 85.7% in the M group and 63.6% in the P group ($P < 0.05$). The rate of satisfaction was 90.5% in the M group and 90.9% in the P group ($P > 0.05$).

CONCLUSION: The mobile discharge instruction video (MDIV) improved the communication of discharge instructions. Further studies will be needed to explore the actual compliance of patients to treatment regimens.

Clarke C, Friedman SM, Shi K, Arenovich A, & Culligan C. Emergency department discharge instructions comprehension and compliance study. *Canadian Journal of Emergency Medical Care.* 7(1):5-11, January 2005.

OBJECTIVES: To assess patient comprehension of emergency department discharge instructions and to describe other predictors of patient compliance with discharge instructions.

METHODS: Patients departing from the emergency department of an inner-city teaching hospital were invited to undergo a structured interview and reading test, and to participate in a follow-up telephone interview 2 weeks later. Two physicians, blinded to the other's data, scored patient comprehension of discharge information and compliance with discharge instructions. Inter-rater reliability was assessed using a kappa-weighted statistic, and correlations were assessed using Spearman's rank correlation coefficient and Fisher's exact test.

RESULTS: Of 106 patients approached, 88 (83%) were enrolled. The inter-rater reliability of physician rating scores was high (kappa = 0.66). Approximately 60% of subjects demonstrated reading ability at or below a Grade 7 level. Comprehension was positively associated with reading ability ($r = 0.29$, $p = 0.01$) and English as first language ($r = 0.27$, $p = 0.01$). Reading ability was positively associated with years of education ($r = 0.43$, $p < 0.0001$) and first language ($r = 0.24$, $p = 0.03$), and inversely associated with age ($r = -0.21$, $p = 0.05$). Non-English first language and need for translator were associated with poorer comprehension of discharge instructions but not related to compliance. Compliance with discharge instructions was correlated with comprehension ($r = 0.31$, $p = 0.01$) but not associated with age, language, education, years in Anglophone country, reading ability, format of discharge instructions, follow-up modality or association with a family physician.

CONCLUSIONS: Emergency department patients demonstrated poor reading skills. Comprehension was the only factor significantly related to compliance; therefore, future interventions to improve compliance with emergency department instructions will be most effective if they focus on improving comprehension.

Clesham K, Mason S, Gray J, Walters S, & Cooke V. Can emergency medical service staff predict the disposition of patients they are transporting? *Emergency Medicine Journal.* 25(10):691-694, October 2008.

BACKGROUND: Emergency medical service (EMS) staff in the UK routinely transport all emergency responses to the nearest emergency department (ED). Proposed reforms in the ambulance service mean that EMS staff will transport patients not necessarily to the nearest hospital, but to one providing facilities that the patient is judged to require. No previous UK studies have evaluated how accurately EMS staff can predict which transported patients will require admission to hospital.

OBJECTIVES: To survey EMS staff regarding the appropriate use of their service and determine whether they can predict which patients will require hospital admission.

Methods: A prospective "service evaluation" of EMS staff transporting patients to an adult ED in the UK. Staff were asked to state whether ED attendance by emergency ambulance was appropriate and whether transported patients would be admitted or discharged from the ED.

RESULTS: During the study period, there were 2553 emergency transports to the ED and questionnaires were completed in 396 cases (15.5%). EMS staff predicted that 182 (46.0%) would be admitted to hospital and 214 (54.0%) would be discharged. Actual dispositions were 187 (47.2%) versus 209 (52.8%) respectively. Sensitivity of predicting admission was 71.7% (95% CI 65 to 78) and specificity was 77.0% (95% CI 71 to 81). EMS staff were significantly better at predicting admission in non-trauma cases than trauma cases (75.9% vs 57.1%, 95% CI 2.2 to 35.4).

CONCLUSION: Staff in one UK ambulance service showed reasonable accuracy when predicting the likelihood of admission of patients they transport. They correctly identified most patients who would be able to leave. Further work is needed to support these findings and ensure that EMS staff safely triage patients to alternative destinations of care.

Coiera EW, Jayasuriya RA, Hardy J, Bannan A, & Thorpe ME. Communication loads on clinical staff in the emergency department. *Medical Journal of Australia.* 176(9):415-418, May 2002.

OBJECTIVE: To measure communication loads on clinical staff in an acute clinical setting, and to describe the pattern of informal and formal communication events.

DESIGN: Observational study.

SETTING: Two emergency departments, one rural and one urban, in New South Wales hospitals, between June and July 1999. Participants: Twelve clinical staff members, comprising six nurses and six doctors. Main outcome measures: Time involved in communication; number of communication events, interruptions, and overlapping communications; choice of communication channel; purpose of communication.

Results: 35 hours and 13 minutes were observed, and 1286 distinct communication events were identified, representing 36.5 events per person per hour (95% CI, 34.5-38.5). A third of communication events (30.6%) were classified as interruptions, giving a rate of 11.15 interruptions per hour for all subjects; 10% of communication time involved two or more concurrent conversations; and 12.7% of all events involved formal information sources such as patients' medical records. Face-to-face conversation accounted for 82%. While medical staff asked for information slightly less frequently than nursing staff (25.4% v 30.9%), they received information much less frequently (6.6% v 16.2%).

CONCLUSION: Our results support the need for communication training in emergency departments and other similar workplaces. The combination of interruptions and multiple concurrent tasks may produce clinical errors by disrupting memory processes. About 90% of the information transactions observed involved interpersonal exchanges rather than interaction with formal information sources. This may put a low upper limit on the potential for improving information processes by introducing electronic medical records.

Cooke MW, Wilson S, Cox P, & Roalfe A . Public understanding of medical terminology: Non-English speakers may not receive optimal care. *Journal of Accident and Emergency Medicine. 17:119-121, 2000*

In the medical setting, unconsciousness is often an indicator of severity of illness. The objective of this research was to determine the general public's awareness and comprehension of the word "unconscious." Seven hundred adult patients attending an inner city accident and emergency department were asked, in English, one of seven questions regarding the concept of unconsciousness. Respondents with English as a first language were significantly more likely to give a correct answer than respondents who were non-native English speakers (77.8 percent vs. 62.7 percent). When the inter-relationships of all variables were examined via logistic regression analysis, the independent predictor of supplying a correct answer was having English as a first language. Non-native English speakers, even when speaking English, may have difficulty understanding frequently used medical terms.

Corbett G, & McGuigan T. Patient satisfaction: Gillian Corbett and Tricia McGuigan report the results of a survey of patients' responses to the care they receive from minor/major injury/illness nurse treatment service nurses. *Emergency Nurse. 16(3):26-35, June 2008.*

Authors report the results of a survey of patients' responses to the care they receive from minor/major injury/illness nurse treatment service nurses. The survey results indicate an improvement in patient satisfaction over several components of care, including patient information, since the Picker Institute surveys were conducted in 2005.

When asked about receiving information on condition and treatment in 2005, 46 per cent of patients indicated that they had been given enough information. When asked the same question for the see-and-treat survey in 2007, 85 per cent of patients expressed this opinion. The survey revealed that patients' satisfaction with the see-and-treat services was high and independent of waiting times. When compared with middle grade and consultant doctors, nurses performed well and, according to patients, were knowledgeable and competent, and generally had good communication skills. While nurses achieved high scores on all subscales of the questionnaire, results suggest that lack of professional confidence is an issue worth addressing.

Cowgur AM. The influence of caring for trauma victims on the development of vicarious traumatization in the emergency nurse. *Dissertation Abstracts International: Section B: The Sciences and Engineering. 67(10-B):5661, 2007.*

The purpose of this study was to describe the influence of caring for trauma victims on the development of vicarious traumatization in the emergency nurse. The study was designed to empirically test whether emergency nurses are negatively affected by caring for trauma victims. The study question was: Which of the ten predictor variables (age, gender, marital status, race, personal history of trauma, highest nursing degree, years as a registered nurse, years working in the emergency department as a registered nurse, percentage of trauma caseload, & facility's trauma designation) were most influential in predicting the signs and symptoms of vicarious traumatization in the emergency nurse? Vicarious traumatization, which describes the cumulative effects of caring for traumatized patients, is manifested as psychological and physical symptoms in the health care provider. The study was conducted with a random sample of emergency nurses recruited from a nationwide Emergency Nurses Association membership listing. The sample size was 123. The participants completed a demographic questionnaire and a pencil and paper self report instrument, the Trauma and Attachment Belief Scale (TABS). The TABS assesses psychological needs that are sensitive to the effects of traumatic experiences. Multiple regression was calculated to predict a total score based on the selected independent variables. Results of the study indicate that emergency nurses are remarkably resilient. Future research should focus on identifying the characteristics of the emergency nurse that are resistant to vicarious traumatization.

Cramm KJ, & Dowd MD. What are you waiting for? A study of resident physician-parent communication in a pediatric emergency department. *Annals of Emergency Medicine.* 51(4): 361-366, 2008.

STUDY OBJECTIVE: This study measures the degree to which parents of patients, in the course of evaluation and treatment in a pediatric emergency department (ED), could report what they were waiting for.

METHODS: Brief in-person interviews were conducted with parents of nonemergency patients during an ED visit. After the patient had been seen by a resident physician and evaluation and treatment were in progress, parents were asked to report what they were waiting for. The patient's physician was also asked to report what the patient was waiting for. These answers were compared and coded as complete agreement, partial agreement, or disagreement. Association between lack of agreement and patient factors (age, sex), parent factors (sex, education, age), physician factors (sex, postgraduate year), and system factors (wait time, time of day, number of patients in the department) was examined. Logistic regression was used to calculate adjusted odds ratios.

RESULTS: A total of 200 paired surveys were included in the data analysis. Two thirds of parental reports completely agreed with physician reports, 11.5% partially agreed, and 21.5% completely disagreed. Multivariate analysis revealed that disagreement between resident physician and parents was associated with parental educational level and physician training level. Parents with less than a high school education were more than 9 times more likely to disagree than those with at least some college education (odds ratio 9.3; 95% confidence interval [CI] 2.4 to 35.7). As the postgraduate level of the physician decreased, disagreement was more common; disagreement for patients of postgraduate level 1 residents was 5 times more likely (95% CI 1.8 to 14.5) than that of postgraduate level 3 and higher residents.

CONCLUSION: As measured by asking the question "what are you waiting for," significant communication gaps were identified between physicians and the parents of their patients in this emergency department. One in five parents could not report what they were waiting for. Factors such as lower parental education and less physician experience increase the risk of such a gap. Further work in defining the source of the ineffective communication and interventions to remediate the problem is needed. copyright 2008 American College of Emergency Physicians.

Crane JA. Patient comprehension of doctor-patient communication on discharge from the emergency department. *Journal of Emergency Medicine.* 15(1): 1-7, 1997.

An exit interview was conducted during March, 1994 on 314 patients treated and released from the **Emergency** Department at Kern Medical Center in Bakersfield, California. The questionnaire was designed to assess understanding of diagnosis, prescribed medications, additional instructions, and plans for follow-up care. The patients' own perceptions of the adequacy of communication and whom they considered the most important source of information were also determined. Overall, patients correctly identified 59% of their instructions. The performance of the English speaking and the Spanish speaking patients was compared. Spanish speaking patients scored significantly lower on all questions. The physician was identified by most patients (63.8%) as the source of the most information.

Croskerry P, Shapiro M, Campbell S, LeBlanc C, Sinclair D, Wren P, et al. Profiles in patient safety: Medication errors in the emergency department. *Academic Emergency Medicine,* 11(3), 289-299, 2004.

Medication errors are frequent in the emergency department (ED). The unique operating characteristics of the ED may exacerbate their rate and severity. They are associated with variable clinical outcomes that range from inconsequential to death. Fifteen adult and pediatric cases are described here to illustrate a variety of errors. They may occur at any of the previously described five stages, from ordering a medication to its delivery. A sixth stage has been added to emphasize the final part of the medication administration process in the ED, drawing attention to considerations that should be made for patients being discharged home. The capability for dispensing medication, without surveillance by a pharmacist, provides an error-producing condition to which physicians and nurses should be especially vigilant. Except in very limited and defined situations, physicians should not administer medications. Adherence to defined roles would reduce the team communication errors that are a common theme in the cases described here.

Cross E, Goodacre S, O'Cathain A, & Arnold J. Rationing in the emergency department: the good, the bad, and the unacceptable. *Emergency Medicine Journal.* 22(3):171-176, March 2005.

OBJECTIVES: Waiting times in emergency departments (EDs) are an important government priority. Although substantial efforts are currently being made to reduce waiting times, little attention has been paid to the patients' view. We used qualitative methods to explore patients' perspectives on waiting times and other approaches to rationing and prioritisation.

METHODS: Face to face, in depth, qualitative interviews (n = 11) explored how patients valued waiting times for non-urgent ED care. The framework approach (identifying a thematic framework through repeated re-reading) was used to analyse transcripts.

RESULTS: Interviewees found some forms of rationing and prioritisation acceptable. They expected rationing by delay, but required explanations or information on the reason for their wait. They valued prioritisation by triage (rationing by selection) and thought that this role could be expanded for the re-direction of non-urgent patients elsewhere (rationing by deflection). Interviewees were mainly unwilling or unable to engage in prioritisation of different types of patients, openly prioritising only

those with obvious clinical need, and children. However, some interviewees were willing to ration implicitly, labelling some attenders as inappropriate, such as those causing a nuisance. Others felt it was unacceptable to blame "inappropriate" attenders, as their attendance may relate to lack of information or awareness of service use. Explicit rationing between services was not acceptable, although some believed there were more important priorities for NHS resources than ED waiting times. Interviewees disagreed with the hypothetical notion of paying to be seen more quickly in the ED (rationing by charging).

CONCLUSIONS: Interviewees expected to wait and accepted the need for prioritisation, although they were reluctant to engage in judgements regarding prioritisation. They supported the re-direction of patients with certain non-urgent complaints. However, they perceived a need for more explanation and information about their wait, the system, and alternative services.

Cross R. Accident and Emergency nurses' attitudes towards health promotion. *Journal of Advanced Nursing*. 51(5):474-483, September 2005.

AIM: This paper presents a study exploring Accident and Emergency nurses' attitudes towards health promotion.

BACKGROUND: Much has been written about nurses and health promotion. Research has focused mainly on community nurses, less on nurses working in acute hospital settings, and apparently not at all on those working in Accident and Emergency units.

METHODS: Q methodology, a technique for extracting subjective opinions, was used. Eleven nurses working in Accident and Emergency departments completed 33-item Q-sorts and wrote personal definitions of health promotion. Based on published literature in the field, the Q sample was structured with reference to nurses' attitudes as they related to health promotion. Factor analysis was performed on the data, and the resulting factors were interpreted. The data were collected in 2003.

RESULTS: Three alternative constructions emerged from the data, representing three alternate views about health promotion. The most widely held opinion (representing nine of the 11 nurses) was a positive view of health promotion and the nurses' role in health promotion in Accident and Emergency environments.

CONCLUSIONS: It is not possible to generalize the findings of this study due to the small number of participants. However, their knowledge of, and commitment to, health promotion is encouraging. Recommendations for practice are that there is continued and increased post-registration education in health promotion for nurses and continuing exploration of the hospital nurses' health promotion role. Further research is needed to explore nurses' perceptions of barriers to effective health promotion and nurses' health promotion activities in Accident and Emergency environments.

Cydulka RK, & Korte R. Career satisfaction in emergency medicine: The ABEM longitudinal study of emergency physicians. *Annals of Emergency Medicine*. 51(6):714-722e1, June 2008.

STUDY OBJECTIVE: The primary objective of this study is to measure career satisfaction among emergency physicians participating in the 1994, 1999, and 2004 American Board of Emergency Medicine Longitudinal Study of Emergency Physicians. The secondary objectives are to determine factors associated with high and low career satisfaction and burnout.

METHODS: This was a secondary analysis of a cohort database created with stratified, random sampling of 1,008 emergency physicians collected in 1994, 1999, and 2004. The survey consisted of 25 questions on professional interests, attitudes, and goals; 17 questions on training, certification, and licensing; 36 questions on professional experience; 4 questions on well-being and leisure activities; and 8 questions about demographics. Data were analyzed with a descriptive statistics and panel series regression modeling (Stata/SE 9.2 for Windows). Questions relating to satisfaction were scored with a 5-point Likert-like scale, with 1=not satisfied and 5=very satisfied. Questions relating to stress and burnout were scored with a 5-point Likert-like scale, with 1=not a problem and 5=serious problem. During analysis, answers to the questions "Overall, how satisfied are you with your career in emergency medicine?" "How much of a problem is stress in your day-to-day work for pay?" "How much of a problem is burnout in your day-to-day work for pay?" were further dichotomized to high levels (4, 5) and low levels (1, 2).

RESULTS: Response rates from the original cohort were 94% (945) in 1994, 82% (823) in 1999, and 76% (771) in 2004. In 2004, 65.2% of emergency physicians reported high career satisfaction (4, 5), whereas 12.7% of emergency physicians reported low career satisfaction (1, 2). The majority of respondents (77.4% in 1994, 80.6% in 1999, 77.4% in 2004) stated that emergency medicine has met or exceeded their career expectations. Despite overall high levels of career satisfaction, one-third of respondents (33.4% in 1994, 31.3% in 1999, 31% in 2004) reported that burnout was a significant problem.

CONCLUSION: Overall, more than half of emergency physicians reported high levels of career satisfaction. Although career satisfaction has remained high among emergency physicians, concern about burnout is substantial.

Dale J, Sandhu H, Lall R, & Glucksman E. The patient, the doctor and the emergency department: A cross-sectional study of patient-centredness in 1990 and 2005: Erratum. *Patient Education and Counseling*, 74(2):278, February 2009.

OBJECTIVE: To compare and contrast the duration and content of physician-patient interaction for patients presenting to an emergency department with problems of low acuity in 1990 and 2005 treated by different grades of physician.

METHODS: Observational study with data collection in May-July 1990 and May-July 2005. Patients identified at nurse triage

as presenting with 'primary care' problems were allocated by time of arrival to senior house officers (1990, n = 7; 2005, n = 10), specialist registrars/staff grades (1990, n = 4; 2005, n = 7) or sessionally employed general practitioners (1990, n = 8; 2005, n = 12) randomly rostered to work in a consulting room that had a wall-mounted video camera. A stratified sample of 430 video-taped consultations (180 (42%) from 1990 and 250 (58%) from 2005) was analysed using the Roter Interaction Analysis System. Main outcome measures--length of consultation; numbers of utterances of physician and patient talk related to building a relationship, data gathering, activating/partnering (i.e. actively encouraging the patient's involvement in decision-making), and patient education/counselling.

Results: On average consultation length was 251s (95% CI for difference: 185-316) longer in 2005 than in 1990. The difference was especially marked for senior house officers (mean duration 385s in 1990 and 778s in 2005; 95% CI of difference: 286-518). All groups of physician showed increased communication related to activating and partnering and building a therapeutic relationship with the patient. While senior house officers demonstrated a greatly increased focus on data gathering, only general practitioners substantially increased the amount of talk centred on patient education and counseling; compared to senior house officers, the odds ratio for the number of such utterances included in consultations was 2.8 (95% CI: 1.4, 5.3).

CONCLUSION: Although patient-centredness together with consultation length increased for all three physician groups over the duration of this study, senior house officers and specialist registrars/staff grades continued to place less emphasis on advice-giving and counselling than did general practitioners. The extent to which these observed changes in practice were determined by policy, management and training initiatives, and their impact on patient outcome, needs further study.

PRACTICE IMPLICATIONS: Video-recording consultations is feasible in an acute hospital setting, and could be used to support training and workforce development. General practitioners can make a distinctive contribution to the workforce of emergency departments. Their consulting style differs from that of hospital physicians and may benefit patient care through a greater focus on patient education and counseling. (PsycINFO Database Record (c) 2009 APA, all rights reserved)

Debehnke D, & Decker M. The effects of a physician-nurse patient care team on patient satisfaction in an academic ED. *American Journal of Emergency Medicine*. 20(4):267-270, July 2002.

The objectives were to investigate the effects of a RN/MD patient care team operational change on ED patient satisfaction. In period 1, RNs had standard room assignments and MDs evaluated patients based upon physician availability and perceived patient load. In period 2, RNs and MDs were organized into 2 patient care "teams" and patients were assigned to teams on an alternating basis. Patient satisfaction was rated using the standard ED Press, Ganey survey instrument. A total of 508 surveys were returned in period 1 and 454 in period 2. From period 1 to 2, overall ED patient satisfaction improved from 78.2 +/- 20.4% to 82.2 +/- 17.2% (improvement from 23rd to 59th percentile, P <= .01). Patient satisfaction with waiting time to treatment area improved from the 33rd to 52nd percentile (73.6 +/- 30.0% v 77.4 +/- 27.0%, P <= .05). Satisfaction with waiting time to see the physician also improved from the 25th to the 62nd percentile (67.6 +/- 32.2% v 73.4 +/- 28.5%, P <= .01). Patients feelings that staff cared about them as a person improved from the 20th to the 65th percentile (77.3 +/- 28.3% v 83.0 +/- 22.4%, P <= .01) Patients were more likely to recommend the ED following the operational change, improving from the 26th to 69th percentile (75.8 +/- 32.7% v 82.83 +/- 25.3%, P <= .01). ED patient care using a RN/MD patient care team improved patients' overall waiting time and length of stay satisfaction and improved the patients' satisfaction with staff and their likelihood of recommending the ED to others.

Delp C, & Jones J. Communicating information to patients: The use of cartoon illustrations to improve comprehension of instructions. *Academic Emergency Medicine*, 3(3): 264-270, 1996.

OBJECTIVE: To evaluate the effect of cartoon illustrations on patient comprehension of and compliance with ED release instructions.

METHODS: A prospective, randomized, controlled study of consecutive patients who presented to the ED of a community teaching hospital with lacerations necessitating wound repair during a three-month study period. At ED release, the patients were randomly assigned to receive wound care instructions with or without cartoon illustrations. Three days later, the patients were followed up by telephone. A blinded investigator asked a series of questions designed to test the patient's recall of, understanding of, and compliance with wound care instructions.

RESULTS: A total of 234 patients were successfully contacted by telephone; 105 (45%) had been given ED release instructions with cartoons, 129 (55%), without cartoons. There was no significant difference in age, gender, level of education, or satisfaction with the ED visit between the two groups. The patients given cartoon instructions were more likely to have read the instructions (98% vs. 79%, p < 0.001), were more likely to answer all wound care questions correctly (46% vs. 6%, p < 0.001), and were more compliant with daily wound care (77% vs. 54%, p < 0.01). Subset analysis of those patients who had less than a high school education (n = 57) demonstrated even larger differences between the two treatment groups in terms of comprehension of and compliance with ED release instructions.

CONCLUSION: Cartoon illustrations are an effective strategy for conveying information and may improve patient compliance with ED release instructions.

Denham CR, Dingman J, Foley ME, Ford D, Martins B, O'Regan P, & Salamendra A. Are you listening...are you really listening? *Journal of Patient Safety.* 4(3):148-161, September 2008.

OBJECTIVES: This is the first of a series of articles addressing the concepts, tools, and resources that can be applied to an enormous performance gap in verbal communication among patients, families, frontline caregivers, physicians, and health care-organization administrative and governance leaders.

METHODS: This first paper takes a "concept-centric" approach by laying the knowledge foundation necessary to improve communication. It references how such concepts may be applied to accelerate and improve adoption of best practices such as the National Quality Forum-Endorsed Safe Practices for Better Healthcare-2006 Update. The second article of the set takes a "safe practice-centric" approach to illustrate how listening concepts, tools, and resources may be leveraged to improve patient safety through the National Quality Forum (NQF) Safe Practices.

RESULTS: This first article defines and supports recognition of key concepts including human factors performance, authority gradient factors, caregiver-to-caregiver barriers, health literacy factors, and the art and science of active listening.

CONCLUSIONS: Use of these concepts can have terrific impact on preventable patient harm and optimization of care.

Doig G. Responding to formal complaints about the emergency department: Lessons from the service marketing literature. *Emergency Medicine Australasia.* 16(4):353-360, August 2004.

The ability to respond to formal complaints is a necessary part of emergency medicine practice. In spite of the significance of formal complaints there is little guidance within the medical literature to understand why patients complain or how to provide satisfaction to individuals who complain. Practitioners are usually left to their own devices in the style and substance of complaint responses even when working within a defined complaint management system. This article draws on relatively abundant literature in the service marketing field to provide an understanding of dissatisfaction, complaining and complaint handling. Having developed an appropriate theoretical framework the article provides guidance for applying these concepts in dealing with formal complaints

Eisenberg EM, Murphy AG, Sutcliffe K, Wears R, Schenkel S, Perry S, & Vanderhoef M. Communication in emergency medicine: Implications for patient safety. *Communication Monographs.* 72(4) 390-413, December 2005.

Emergency medicine is largely a communicative activity, and medical mishaps that occur in this context are too often the result of vulnerable communication processes. In this year-long qualitative study of two academic emergency departments, an interdisciplinary research team identified four such processes: triage, testing and evaluation, handoffs, and admitting. In each case, we found that narrative rationality (the patient's story) was consistently subjugated to technical rationality (actionable lists). Process changes are proposed to encourage caregivers to either reconsider their course of action or request additional contextual information. A heightened awareness of the bias for technical over narrative rationality and a better recognition of uncertainty in emergency medicine communication are important first steps toward anticipating potential failures and ensuring patient safety.

Ekwall A, Gerdtz M, & Manias E. The influence of patient acuity on satisfaction with emergency care: Perspectives of family, friends and carers. *Journal of Clinical Nursing.* 17(6):800-809, March 2008.

AIMS AND OBJECTIVES: To investigate the factors that influence satisfaction with emergency care among individuals accompanying patients to the emergency department and explore agreement between the triage nurse and accompanying person regarding urgency.

BACKGROUND: Many patients seeking treatment in hospital are escorted by an accompanying person, who may be a friend, family member or carer. Several factors influence patient satisfaction with emergency care, including waiting time and time to treatment. It is also influenced by provision of information and interpersonal relations between staff and patients. Research on satisfaction has focused on the patient perspective; however, individuals who accompany patients are potential consumers. Knowledge about the ways accompanying persons perceive the patient's medical condition and level of urgency will identify areas for improved patient outcomes.

DESIGN & METHODS: A prospective cross-sectional survey with a consecutive sample (n=128 response rate 83[middle dot] (7%) was undertaken. Data were collected in an Australian metropolitan teaching hospital with about 32,000 emergency department visits each year. The Consumer Emergency Satisfaction Scale was used to measure satisfaction with nursing care.

RESULTS: Significant differences in perceptions of patient urgency between accompanying persons and nurses were found. Those people accompanying patients of a higher urgency were significantly more satisfied than those accompanying patients of a lower urgency. These results were independent of real waiting time or the accompanying person's knowledge of the patients' triage status. In addition, older accompanying persons were more satisfied with emergency care than younger accompanying persons.

DISCUSSION: Little attention has been paid to the social interactions that occur between nurses and patients at triage and the ways in which these interactions might impact satisfaction with emergency care.

Relevance to clinical practice: Good interpersonal relationships can positively influence satisfaction with the emergency visit. This relationship can contribute to improved patient care and health outcomes.

Elder R, Neal C, Davis BA, Almes E, Whitley L, & Littlepage N. Patient satisfaction with triage nursing in a rural hospital emergency department. *Journal of Nursing Care Quality*. 19(3):263-268, July/August/September 2004.

This study examined what relationships or differences exist between patient and nurse characteristics, satisfaction with triage nurse caring behaviors, general satisfaction with the triage nurse, and intent to return to a rural hospital emergency department (ED). The ED, located at a 401-bed teaching hospital in a small southern city, averages 28,000 visits annually. Samples of ED nurses (N = 11) and ED patients (N = 65) were asked to respond to demographic forms and the Consumer Emergency Care Satisfaction Scale (CECSS) Adapted. Findings indicated that the nurse's acuity rating and the patient's perception of condition had a positive relationship. The patient's perception of condition, patient satisfaction, and caring satisfaction were predictors of intent to return. When patients perceived themselves as seriously ill or injured, they expressed less intent to return to that ED.

Ellison S, Sullivan C, Quaintance J, Arnold L, & Godfrey P. Critical care recognition, management and communication skills during an emergency medicine clerkship. *Medical Teacher*, 30:9,e228 — e238, 2008.

URL: <http://dx.doi.org/10.1080/01421590802334259>

BACKGROUND: Medical students need to learn how to recognize and manage critically ill patients; to communicate in critical situations with patients, families, and the healthcare team; and finally, to integrate technical knowledge with communication skills in caring for these patients. Meeting their needs will help prepare them to demonstrate, as physicians, the ability to synthesize information while simultaneously caring for patients that the American Medical Association recently characterized as vital.

AIMS: Responding to these needs, we developed and implemented a curriculum to enable students in a required emergency medicine clerkship to recognize, manage, and simultaneously communicate with critically ill patients.

METHODS: The curriculum consisted of lectures and exercises on caring for the critically ill including: an introduction to the systematic approach; an interactive lecture on comprehensive communication; observation and discussion of real patients in the emergency department; participation in a single standardized patient encounter while peers and a faculty member observed them; assessment of students' own videotaped performance of the examination by using critical care and communication/interpersonal skills checklists; and receipt of private feedback based on the checklists from the faculty and the standardized patient. Students evaluated the curriculum at the end of the clerkship.

RESULTS: Complete performance data for 46 students and curriculum evaluation data from 42 students were available. According to faculty assessment, students as a group performed 79.6% (SD 0.15) of the critical care and 70.9% (SD 11.5%) of the communication skills. Students most often demonstrated Basic Interpersonal Skills (97.9%, SD 0.056) and least often demonstrated Empathy skills (41.7%, SD 0.235). Students rated the curriculum positively.

CONCLUSIONS: It is feasible to integrate the teaching of communication skills with the recognition and management of critically ill patients. The next step will be to revise the curriculum to address student deficiencies and to evaluate its effectiveness more rigorously.

Engel K, Heisler M, Smith DM, Robinson CH, Forman JH, & Ubel PA. Patient comprehension of emergency department care and instructions: Are patients aware of when they do not understand? Presented as an abstract at the annual meeting for the Society of Academic Emergency Medicine, May 2006, San Francisco, CA.

STUDY OBJECTIVE: To be able to adhere to discharge instructions after a visit to the emergency department (ED), patients should understand both the care that they received and their discharge instructions. The objective of this study is to assess, at discharge, patients' comprehension of their ED care and instructions and their awareness of deficiencies in their comprehension.

METHODS: We conducted structured interviews of 140 adult English-speaking patients or their primary caregivers after ED discharge in 2 health systems. Participants rated their subjective understanding of 4 domains: (1) diagnosis and cause; (2) ED care; (3) post-ED care, and (4) return instructions. We assessed patient comprehension as the degree of agreement (concordance) between patients' recall of each of these domains and information obtained from chart review. Two authors scored each case independently and discussed discrepancies before providing a final concordance rating (no concordance, minimal concordance, partial concordance, near concordance, complete concordance).

RESULTS: Seventy-eight percent of patients demonstrated deficient comprehension (less than complete concordance) in at least 1 domain; 51% of patients, in 2 or more domains. Greater than a third of these deficiencies (34%) involved patients' understanding of post-ED care, whereas only 15% were for diagnosis and cause. The majority of patients with comprehension deficits failed to perceive them. Patients perceived difficulty with comprehension only 20% of the time when they demonstrated deficient comprehension.

CONCLUSION: Many patients do not understand their ED care or their discharge instructions. Moreover, most patients appear to be unaware of their lack of understanding and report inappropriate confidence in their comprehension and recall.

Ersoy G, Yanturali S, Suner S, Karakus NE Aksay E, & Atilla R. Turkish patient relatives' attitudes towards family-witnessed resuscitation and affecting sociodemographic factors. *European Journal of Emergency Medicine*. 16(4): 188-193, Aug 2009.

BACKGROUND: Witnessed resuscitation is the process of resuscitation in the presence of family members.

STUDY OBJECTIVE: Our goal was to determine the attitudes of relatives of the patients presenting to our emergency department regarding witnessed resuscitation and to elucidate the sociodemographic variables affecting their perspectives.

METHODS: Blood relatives and spouses of all adult patients presenting to our emergency department in Turkey between 7 January 2005 and 16 January 2005 were included in the study. Accompanying persons other than patients' relatives were excluded. Surveys were conducted using a structured face-to-face interview with the participants.

RESULTS: A total of 420 family members were surveyed. Most participants (66.4%) stated that they would like to be present during resuscitation. The most common reason for wanting to be present during cardiopulmonary resuscitation (CPR) was: 'providing support for the patient' and 'witnessing the intervention'. Male family members and family members of patients without health insurance were more likely to want to witness resuscitation. Although prior willingness to witness CPR did not affect the likelihood of wanting to witness CPR, those family members who had previously witnessed CPR ending in death had decreased likelihood of wanting to witness it again. The participants' age, level of education, marital status, presence of chronic illness, and the patients' presenting diagnosis did not significantly affect the rate of willingness to witness CPR.

CONCLUSION: Our data locally revealed that most of the participants in this survey would like to witness CPR conducted on their family members who presented to our emergency department.

Farmer SA, Roter DL, & Higginson IJ. Chest pain: Communication of symptoms and history in a London emergency department. *Patient Education and Counseling*. 63(1-2):138-144, October 2006.

OBJECTIVE: To describe patient-provider interactions for patients in an emergency department with possible acute coronary syndrome (ACS) and to generate hypotheses about how communication might contribute to sociocultural disparities in cardiac care.

METHODS: Qualitative analysis of observational data. Seventy-four consecutive patients presenting between 8 a.m. and 10 p.m. over a 4-month period.

RESULTS: Participants were aged 40-85 years; 58% were male; 67% were white, 18% Afro-Caribbean, and 15% South East Asian. Observations revealed significant obstacles to communication for the majority of patients. The three most prominent impediments to effective communication were: the use of leading questions to define chest pain, patient-provider conflict as a result of, and contributor to, poor communication, and frank miscommunication due to language barriers and translational difficulties.

CONCLUSION: This study documents aspects of the communication process that compromise the quality of the medical history obtained in emergency department patients with suspected ACS. Accurate diagnosis relies on an interaction that weaves both the patient's and the physician's perspective into a shared understanding of events that comprise a patient's history. When diagnostic short cuts are taken to overcome educational, cultural, or language barriers in the medical interview, they may contribute to health care disparities.

PRACTICE IMPLICATIONS: Physicians should take a more attentive and careful approach to patient interviewing than was observed here and should be aware of the ways in which they shape the interview through their questions and focus. Good communication skills can be effectively taught at all levels of training and practice.

Fernandez WG, Mitchell P, Jamanka AS, Winter MR, Bullock H, Donovan J, George J, Feldman JA, Gallagher SS, McKay, MP, Bernstein E, & Colton T. Brief motivational intervention to increase self-reported safety belt use among emergency department patients. *Academic Emergency Medicine*. 15(5):419-425, May 2008.

OBJECTIVES: Brief motivational interventions have shown promise in reducing harmful behaviors. The authors tested an intervention to increase safety belt use (SBU) among emergency department (ED) patients.

METHODS: From February 2006 to May 2006, the authors conducted a randomized trial of adult ED patients at a teaching hospital in Boston. ED patients were systematically sampled for self-reported SBU. Those with SBU other than "always" were asked to participate. At baseline, participants answered a 9-item series of situational SBU questions, each scored on a 5-point Likert scale. SBU was defined as a continuous variable (9-item average) and as a dichotomous variable (response of "always" across all items). Participants were randomized to an intervention or a control group. The intervention group received a 5- to 7-minute intervention, adapted from classic motivational interviewing techniques, by a trained interventionist. Participants completed a 3-month follow-up phone survey to determine changes from baseline SBU. Continuous and dichotomous SBU were analyzed via analysis of covariance and chi-square testing.

RESULTS: Of 432 eligible patients, 292 enrolled (mean age 35 years, standard deviation [SD] +/-11 years; 61% male). At baseline, the intervention and control groups had similar mean (+/-SD) SBU scores (2.8 [+/-1.1] vs. 2.6 [+/-1.1], $p = 0.31$) and SBU prevalence (each 0%). At 3 months, 81% completed follow-up. The intervention group had significantly greater improvement in mean (+/-SD) SBU scores than controls (0.76 [+/-0.91] vs. 0.34 [+/-0.88], $p < 0.001$). Also, SBU prevalence of "always" was higher for the intervention group than controls (14.4% vs. 5.9%, $p = 0.03$).

CONCLUSIONS: Participants receiving a brief motivational intervention reported higher SBU at follow-up compared to

controls. An ED-based intervention may be useful to increase SBU.

Fordyce J. Blank F.S.J. Pekow P. Smithline H.A. Ritter G. Gehlbach S. Benjamin E. Henneman P.L. Errors in a busy emergency department. *Annals of Emergency Medicine*, 42(3):324-333, September 2003.

STUDY OBJECTIVE: We describe errors occurring in a busy ED.

METHODS: This is a prospective, observational study of reported errors at an academic emergency department (ED) with 100,000 annual visits. Trained personnel interviewed all ED staff with direct patient contact, during and at the end of every shift, by using standardized data sheets.

RESULTS: One thousand nine hundred thirty-five ED patients registered during the 7-day study period in the summer of 2001. Four hundred error reports were generated, identifying 346 nonduplicative errors (18 per 100 registered patients; 95% confidence interval [CI] 15.9 to 20.0). Forty percent of errors were reported by nurses, 25% by providers, 19% by clerical staff, 13% by technicians and orderlies, and 3% multiple reporters. Errors reported for every 100 hours worked were similar for all groups (5.5; 95% CI 5.2 to 5.9). Errors were categorized as 22% diagnostic studies, 16% administrative procedures, 16% pharmacotherapy, 13% documentation, 12% communication, 11% environmental, and 9% other. Patients involved in errors were more likely to be older ($P<.0001$) and more likely to have higher visit level intensity ($P<.0001$) than registered ED patients. Ninety-eight percent of errors did not have a significant adverse outcome. Seven errors (0.36 per 100 registered patients; 95% CI 0.14 to 0.72) were associated with an adverse outcome.

CONCLUSION: Reported errors occurred in almost every aspect of emergency care. Ninety-eight percent of errors in the ED do not result in adverse outcomes. System changes need to be implemented to reduce ED errors.

Francis R, Spies CD, & Kerner T. Quality management and benchmarking in emergency medicine. *Current Opinion in Anaesthesiology*. 21(2):233-239, April 2008.

PURPOSE OF REVIEW: Being critical in terms of time and complexity, emergency medicine is exposed to an emerging imperative for quality improvement strategies. We review current concepts and recent advances in the management of quality in emergency medicine.

RECENT FINDINGS: There is a strong interdependence between quality of emergency healthcare provision and the education of emergency healthcare providers. Introduction of emergency medical residencies and highly qualified triage liaison physicians helps prevent the overcrowding of emergency departments, accelerate access to emergency medical care and improve patient satisfaction. New advances in detecting and reducing patient management errors include the collection of healthcare provider complaints and the classification of unpreventable and preventable deaths of patients within 1 week of admission via the emergency department. Medical record review and video recording have revealed that frequent patient management problems relate to shortcomings in the diagnostic process, clinical tasks, patient factors, and poor teamwork. Communication skills and patient data/documentation systems may effectively resolve these problems.

SUMMARY: According to the available evidence, more performance improvement strategies need to be tested to delineate which process changes would be most effective in improving patient outcome in emergency medicine.

Gillespie M, & Melby V. Burnout among nursing staff in accident and emergency and acute medicine: A comparative study. *Journal of Clinical Nursing*. 12(6):842-851, November 2003.

This study was designed to identify the prevalence of burnout among nurses working in Accident and Emergency (A & E) and acute medicine, to establish factors that contribute to stress and burnout, to determine the experiences of nurses affected by it and highlight its effects on patient care and to determine if stress and burnout have any effects on individuals outside the clinical setting. A triangulated research design was used incorporating quantitative and qualitative methods. Maslach Burnout Inventory was used.

Nurses working in acute medicine experienced higher levels of emotional exhaustion than their A & E counterparts. The overall level of depersonalization was low. High levels of personal accomplishment were experienced less by junior members of staff.

Stress and burnout have far reaching effects both for nurses in their clinical practice and personal lives. If nurses continue to work in their current environment without issues being tackled, then burnout will result. The science of nursing does not have to be painful, but by recognition of the existence of stress and burnout we can take the first steps towards their prevention.

Ginde AA, Weiner SG, Pallin DJ, & Camargo CA Jr. Multicenter study of limited health literacy in emergency department patients. *Academic Emergency Medicine*. 15(6):577-580, June 2008.

OBJECTIVES: The objective was to evaluate the prevalence of limited health literacy and its association with sociodemographic variables in emergency department (ED) patients.

METHODS: This was a cross-sectional survey in three Boston EDs. The authors enrolled consecutive adult patients during two 24-hour periods at each site. They measured health literacy by the short version of the Test of Functional Health Literacy in Adults (S-TOFHLA). Using multivariate logistic regression, the authors evaluated associations between sociodemographic

variables and limited health literacy, as classified by S-TOFHLA scores.

RESULTS: The authors enrolled 300 patients (77% of eligible). Overall, 75 (25%; 95% confidence interval [CI] = 20% to 30%) of participants had limited health literacy. Limited health literacy was independently associated with older age (compared to 18-44 years, odds ratio [OR] 4.3 [95% CI = 2.0 to 9.2] for 45-64 years and OR 3.4 [95% CI = 1.4 to 8.5] for ≥ 65 years), less education (compared to high school graduates, OR 2.7 [95% CI = 1.1 to 7.3] for some high school or lower and OR 0.43 [95% CI = 0.21 to 0.88] for some college or higher), and lower income (OR 2.8 [95% CI = 1.2 to 6.6] for $\leq \$40,000$ compared to $> \$40,000$). Although ethnicity, race, and language were associated with limited health literacy in unadjusted analyses, the associations were not significant on multivariate analysis.

CONCLUSIONS: In this sample, one-quarter of ED patients would be expected to have difficulty understanding health materials and following prescribed treatment regimens. Advanced age and low socioeconomic status were independently associated with limited health literacy. The ability of a significant subgroup of ED patients to understand health information, especially during illness or injury, requires further study.

Griffey RT, & Bohan JS. Healthcare provider complaints to the emergency department: a preliminary report on a new quality improvement instrument. *Quality & Safety in Health Care. 15(5):344-346, October 2006.*

OBJECTIVES: Patient complaints to the emergency department (ED) have been well studied as indicators of quality. However, no study of complaints from healthcare providers (physicians, nurses and hospital administrators) has been published. Given their experience and expertise, healthcare providers are uniquely positioned to provide informed opinions about patient care. We present 1 year's results from a system initiated to capture healthcare providers' complaints, respond systematically, and integrate them into our quality program.

METHODS: Complaints by healthcare providers to the ED for calendar year 2002 generated a "Care Concern" addressed by the involved emergency physician within 7 days. These were reviewed by two quality managers who assigned one of eight categories to the primary complaint and evaluated the need for formal peer review.

RESULTS: Of 185 complaints, 53 (29%) were from healthcare providers. Of these, 31 (58%) related to medical care: 8 (15%) to diagnostic work-up, 9 (16%) to ED management, and 14 (26%) to consultations. Eleven (21%) related to miscommunication: 7 (13%) to disposition and 4 (8%) concerned infraction of hospital policy. Ten (19%) led to further formal review with two resulting in changes in ED policy.

CONCLUSION: Healthcare workers' complaints highlight an aspect of customer care that is sometimes overlooked—that which we provide to other services. The complaints relate primarily to patient care issues, frequently raising concerns requiring intervention. This underused source of information presents a potential wealth of opportunity for quality improvement and customer service in the ED.

Grover G, Berkowitz CD, & Lewis RJ. Parental recall after a visit to the emergency department. *Clinical Pediatrics (Phila) 33(4): 194-201, 1994.*

Using exit interviews, we determined parental recall of their child's diagnosis, treatment, and follow-up instructions after a visit to the emergency department (ED). Over 2 weeks, 159 parents were interviewed. Exclusion criteria were: parental language other than Spanish or English, admission, trauma, child abuse, or a primary psychiatric diagnosis. Neither language nor parental satisfaction with communication (reported in 93%) was associated with ability to state the diagnosis correctly ($P = NS$). Seventy-five percent (88 of 117) of parents of children given a single diagnosis stated it correctly; 55% (23 of 42) of parents of children given multiple diagnoses were able to correctly state them all ($P = 0.013$). If a single medication was prescribed, 30% (20 of 67) of parents knew its name, while only 13% (four of 31) knew all names of multiple medications ($P = 0.070$). Of those parents given a single medication, 51% (34 of 67) knew how to administer it, while only 10% (three of 31) knew how to administer multiple medications ($P < 0.001$). Similarly, 58% (46 of 79) of parents given a single appointment knew the date and place of their child's follow-up, while only 16% (three of 19) given multiple appointments knew all dates and locations ($P = 0.001$). These data suggest that despite high parental satisfaction with communication, many parents cannot fully recall their child's diagnosis, treatment, and follow-up—especially when multiple diagnoses, medications, or appointments are given.

Henneman EA, Blank FS, Gawlinski A, & Henneman PL. Strategies used by nurses to recover medical errors in an academic emergency department setting. *Applied Nursing Research. 19(2):70-7, May 2006.*

PURPOSE: The purpose of this study was to gain insight into how nurses recover medical errors in the emergency department (ED) setting.

METHODS: The research method was of exploratory descriptive design with qualitative analysis. Subjects who signed the informed consent participated in one of four focus groups centering on nurse's role in recovering errors. Questions were asked during the focus groups to elicit information regarding nurse's role in the three phases of error recovery, namely, identifying, interrupting, and correcting the error.

RESULTS: Five themes emerged to describe methods used by nurses to identify errors in the ED setting. These themes included: surveillance, anticipation, double checking, awareness of the "big picture," and experiential "knowing." Five themes

emerged as methods used to interrupt errors: patient advocacy, offer of assistance, clarification, verbal interruption, and creation of delay. The themes for correcting an error were assembling the team and involving leadership.

CONCLUSION: The results of this study provide preliminary evidence of the strategies used by ED nurses in the recovery of medical error. Further research is needed to generalize these findings to other ED settings. Knowledge of effective recovery strategies can ultimately be used to develop interventions for reducing medical error and improving patient safety.

Hobgood C, Villani J, & Quattlebaum R. Impact of emergency department volume on registered nurse time at the bedside. *Annals of Emergency Medicine.* 46(6):481-489, December 2005.

STUDY OBJECTIVE: We determine how emergency department (ED) registered nurses (RNs) allocate their time between various tasks and describe how RN task distribution changes as a function of various measures of ED patient volume and patient acuity.

METHODS: This is a 3-year direct observational study using a convenience sample of 63 8-hour nurse shifts. Four RN task categories were defined: (1) direct patient care, (2) indirect patient care, (3) non-RN care, and (4) personal time. Two measures of nurse workload were used, the patient-to-nurse ratio and the ED acuity index (ED acuity index=(Σ reverse order triage scores/half hour)/total number of nurses staffing). Trained observers classified RN activity at 1-minute intervals during 8-hour shifts daily for 7 nonconsecutive 24-hour periods. RN staffing data, ED patient census, and patient triage scores were collected every half hour. Summary statistics, correlation tables, and regression analysis were used to establish relationships between RN task allocation, patients per nurse, and the ED acuity index.

RESULTS: For the 63 nursing shifts studied, on average RNs spent 25.6% of their time performing direct patient care, 48.4% on indirect patient care, 6.8% on non-RN care, and 19.1% on personal time. Regardless of the number of patients per RN, approximately twice as much time is spent on indirect patient care as direct patient care. The correlation between the ED acuity index and the patient-to-nurse ratio was 0.98.

CONCLUSION: Regardless of workload, RNs spend the majority of their time performing indirect patient care. RNs spend little time performing tasks that could be performed by ancillary staff. The patient-to-nurse ratio performs just as well as a more complicated acuity index to measure the workload of RNs within an ED.

Hofner MC, Python NV, Martin E, Gervasoni JP, Graz B, & Yersin B. Prevalence of victims of violence admitted to an emergency department. *Emergency Medicine Journal.* 22(7):481-485, July 2005.

OBJECTIVE: To collect data on the consultation frequency and demographic profile of victims of violence attending an emergency department (ED) in Switzerland.

METHODS: We undertook screening of all admitted adult patients (>16 years) in the ED of the CHUV, Lausanne, Switzerland, over a 1 month period, using a modified version of the Partner Violence Screen questionnaire. Exclusionary criteria were: life threatening injury (National Advisory Committee on Aeronautics score ≥ 4), or inability to understand or speak French, to give oral informed consent, or to be questioned without a family member or accompanying person being present. Data were collected on history of physical and/or psychological violence during the previous 12 months, the type of violence experienced by the patient, and if violence was the reason for the current consultation. Sociodemographic data were obtained from the registration documents.

RESULTS: The final sample consisted of 1602 patients (participation rate of 77.2%), with a refusal rate of 1.1%. Violence during the past 12 months was reported by 11.4% of patients. Of the total sample, 25% stated that violence was the reason for the current consultation; of these, 95% of patients were confirmed as victims of violence by the ED physicians. Patients reporting violence were more likely to be young and separated from their partner. Men were more likely to be victims of public violence and women more commonly victims of domestic violence.

CONCLUSIONS: Based on this monthly prevalence rate, we estimate that over 3000 adults affected by violence consult our ED per annum. This underlines the importance of the problem and the need to address it. Health services organisations should establish measures to improve quality of care for victims. Guidelines and educational programmes for nurses and physicians should be developed in order to enhance providers' skills and basic knowledge of all types of violence, how to recognise and interact appropriately with victims, and where to refer these patients for follow up care in their local networks.

Hogan, S Leininger. Patient satisfaction with pain management in the emergency department. *Topics in Emergency Medicine.* 27(4):284-294, October/December 2005.

This article identifies pain as a common symptom that brings patients into the emergency department for treatment of their pain and to find the reason for their pain. Historically, emergency departments have not done a good job in the treatment of pain for a variety of reasons that you will read about. As the Joint Commission of Accreditation of Hospitals takes pain seriously, emergency departments are looking for ways to improve their care, especially in the area of pain management. Hospital personnel have used a variety of measures to improve their care, beginning with examining of their own personal issues, to pain education, and to using pain protocols. Within this article, you will read how various institutions improved their pain scores by using various pain assessment forms and teaching tools.

Hoot NR, & Aronsky D. Systematic review of emergency department crowding: Causes, effects, and solutions. *Annals of Emergency Medicine*. 52(2):126-136e1, August 2008.

Emergency department (ED) crowding represents an international crisis that may affect the quality and access of health care. We conducted a comprehensive PubMed search to identify articles that (1) studied causes, effects, or solutions of ED crowding; (2) described data collection and analysis methodology; (3) occurred in a general ED setting; and (4) focused on everyday crowding. Two independent reviewers identified the relevant articles by consensus. We applied a 5-level quality assessment tool to grade the methodology of each study. From 4,271 abstracts and 188 full-text articles, the reviewers identified 93 articles meeting the inclusion criteria. A total of 33 articles studied causes, 27 articles studied effects, and 40 articles studied solutions of ED crowding. Commonly studied causes of crowding included nonurgent visits, "frequent-flyer" patients, influenza season, inadequate staffing, inpatient boarding, and hospital bed shortages. Commonly studied effects of crowding included patient mortality, transport delays, treatment delays, ambulance diversion, patient elopement, and financial effect. Commonly studied solutions of crowding included additional personnel, observation units, hospital bed access, nonurgent referrals, ambulance diversion, destination control, crowding measures, and queuing theory. The results illustrated the complex, multifaceted characteristics of the ED crowding problem. Additional high-quality studies may provide valuable contributions toward better understanding and alleviating the daily crisis. This structured overview of the literature may help to identify future directions for the crowding research agenda.

Hwang U & Morrison RS. The geriatric emergency department. *Journal of the American Geriatrics Society*. 55(11):1873-1876, November 2007.

With the aging of the population and the demographic shift of older adults in the healthcare system, the emergency department (ED) will be increasingly challenged with complexities of providing care to geriatric patients. The special care needs of older adults unfortunately may not be aligned with the priorities for how ED physical design and care is rendered. Rapid triage and diagnosis may be impossible in the older patient with multiple comorbidities, polypharmacy, and functional and cognitive impairments who often presents with subtle clinical signs and symptoms of acute illness. The use of Geriatric Emergency Department Interventions, structural and process of care modifications addressing the special care needs of older patients, may help to address these challenges.

Jackson AH. The impact of cognitive development on compassion fatigue in emergency response personnel. *Dissertation Abstracts International Section A: Humanities and Social Sciences*. 65(6-A), 2098, 2004.

Those who work in the emergency response professions are constantly exposed to the stress and trauma of others in their day-to-day work environment. As a result, emergency response professionals may face consequences of working in such a demanding profession. One such consequence has been identified as, Compassion Fatigue (Figley, 2002). Compassion Fatigue is best described as "paying the costs of caring". Since the identification of the construct of compassion fatigue, many approaches have been utilized in an effort to address this problem. While the various approaches have achieved some level of success, they are open to criticism on a number of levels. Because of these vulnerabilities, a new approach to treating compassion fatigue is necessary. This new approach to treating this serious problem is possible through cognitive developmental theory. This research project proposed that higher levels of cognitive development, more specifically, moral development, would have a significant impact on the construct of compassion fatigue. Significant findings show that higher levels of development do indeed impact compassion fatigue. Other interesting and significant findings point the way for further research and intervention in an effort to more fully facilitate growth and development in emergency response personnel so that the effects of compassion fatigue are lessened and professionals are better equipped to perform their duties in an effective manner. Implications for practice and future research are discussed.

Jayaram G & Triplett P. Quality improvement of psychiatric care: Challenges of emergency psychiatry. *The American Journal of Psychiatry*, 165(10):1256-1261, October 2008.

The presence of one or more risk factors-such as a major mental disorder, alcoholic dependence, and previous suicide attempts as well as acute psychosocial stressors-that bring a severely mentally ill person to the hospital emergency setting needs careful consideration and assessment before patient disposition. However, many factors and procedures, both patient and systems related, potentially diminish the quality of care provided and are burdensome to implement. Our article highlights the numerous lapses and obstacles to appropriate care that can occur and some proposed solutions to enhance the quality of care quality. The case example serves to illustrate one such scenario.

Johnson RL, Sadosty AT, Weaver AL, & Goyal DG. To sit or not to sit? *Annals of Emergency Medicine*. 51(2):188-193, February 2008.

STUDY OBJECTIVE: We prospectively examine whether provider posture (seated versus standing) influences patient and provider estimates of time spent at the bedside relative to actual time and patient perceptions of the provider-patient interaction.

METHODS: A convenience sample of consenting adult patients presenting to an academic tertiary care emergency

department between September 7, 2005, and September 25, 2005, were eligible for inclusion in this randomized, controlled trial. Providers (emergency medicine attending physicians, residents, physician assistants, and medical students) were randomly assigned to sit or stand during the initial encounter, after which, participants completed questionnaires about their perceptions of provider-patient interactions and time spent therein. Actual encounter length was measured. Data were analyzed to determine whether patient and provider perception differences existed, using a multilevel regression model that was adjusted for patient-level and provider-level covariates.

RESULTS: Two hundred twenty-four consenting patients met inclusion criteria (239 approached; 15 excluded). Data from 36 providers were collected. The mean length of encounters in both study arms was 8.6 minutes (SD 4.8; range 1.5 to 34.1). Patients involved in seated interactions overestimated time providers spent performing initial encounters by an average of 1.3 minutes (SD 4.3 minutes), whereas patients involved in the standing interactions underestimated time by an average of 0.6 minutes (SD 4.3 minutes) ($P=.001$). Conversely, providers overestimated time spent with patients in both study arms ($P=.85$; mean [SD] 0.5 [3.6] versus 0.3 [3.2] minutes). Patient perceptions of the quality of patient-provider interactions were not affected by provider posture.

CONCLUSION: Although provider posture during the initial interaction affects patient perceptions of time spent at the bedside, it does not influence patient perception of the provider's bedside manner, sense of caring, or understanding of the patient's problem.

Johnson M, Goodacre S, Tod A, & Read S. Patients' opinions of acute chest pain care: a qualitative evaluation of Chest Pain Units. *Journal of Advanced Nursing*. 65(1):120-129, January 2009.

AIM: This paper is a report of a study to explore the experiences of individuals receiving Chest Pain Unit care and routine Emergency Department care for acute chest pain.

BACKGROUND: Chest Pain Units were established in the United States of America with the aim of reducing admissions and costs, whilst improving quality of life and care satisfaction. Trials showed these units to be safe and practical; however, there was a need to establish whether Chest Pain Units could be cost-effective in the United Kingdom, and whether use of a nurse-led protocol could be acceptable to patients.

Method: We carried out 26 semi-structured interviews in 2005-2006 with patients across seven trial Chest Pain Units in the United Kingdom (14 in intervention sites and 12 in control sites) to explore issues that patients considered were important in their care experiences, and to develop possible explanations for the main trial outcomes. We analysed transcripts using the Framework approach to identify themes relating to care experiences.

FINDINGS: Differences in care experiences were more distinct between individual sites than between control and intervention sites. Satisfaction with care was high overall. Interactions with healthcare professionals, in particular specialist nurses, were valued in terms of reassurance, calming effect and competence. Indications for care improvement concerned information-giving about investigations, diagnosis, and self-care advice. Patients with non-cardiac causes needed to feel more supported after discharge.

CONCLUSION: Differences between modes of care may not coincide with identified trial outcomes. Qualitative methods can identify aspects of care that improve patient acceptability. The specialist nurse role appears particularly important in providing satisfactory individualized chest pain care.

Kadzombe EA, & Coals J. Complaints against doctors in an accident and emergency department: a 10-year analysis. *Archives of Emergency Medicine*. 9(2): 134-42. 1992.

This is one of the first studies conducted in an emergency department about complaints. An analysis of complaints against doctors in an Accident and Emergency Department from 1 January 1979 to 31 December 1988 was conducted. There were 66 complainants in all, comprising 37 relatives, 21 patients and eight persons acting in a professional capacity. The majority of complaints (80 out of 125) were about poor communication and dissatisfaction with diagnosis and treatment. A small number of complainants had unrealistic expectations of the Accident and Emergency service. A total of 83.3% of complaints were against Senior House Officers who saw 61.3% of all patients. We concluded that an improvement in the communicative, diagnostic and therapeutic skills of doctors would minimize justified complaints.

Kelly C, Shulman V, Khine H, & Avner JR. Parental perception of the passage of time during a stressful event. *Pediatric Emergency Care*. 23(6):376-379, June 2007.

OBJECTIVE: The duration of a specific event during an emergency and the duration of time from the event until medical evaluation are important components of a detailed history and may influence management decisions. We sought to determine whether a caregiver is accurate in their recollection of the passage of time related to a stressful event.

METHODS: A convenience sample of caregivers who arrived with the child to an urban pediatric emergency department via emergency medical service (EMS) ambulance were administered a brief questionnaire that included their recollection of the following time intervals: calling the ambulance to arrival at the scene (call time), arrival of the ambulance at the scene until departure (scene time), and from the scene until arrival in the emergency department (transport time). The total time was the addition of the 3 intervals. The caregiver's recalled time estimates were then compared with corresponding time intervals

extracted from the ambulance "run sheet" submitted by the EMS personnel.

RESULTS: Sixty-one caregivers recalled all 3 time intervals. The mean call time was 6 minutes (range, 1-25 minutes), and the mean total time was 33 minutes (range, 12-72 minutes). The time interval closest to the emergency event, the call time, was underestimated by the caregiver in 11 cases (18%), was exact in 8 cases (13%), and was overestimated in 42 cases (69%). The caregiver's estimate was within 1 minute of the EMS recorded call time in 30%, the scene time in 18%, the transport time in 33%, and the total time in 15%. There was no association of caregiver accuracy with the self-assessment of stress level.

CONCLUSIONS: Caregivers recollection of the ambulance time intervals during their child's illness was generally unreliable. If used as a marker for the caregiver's perception of the passage of time during a stressful event, these data suggest that interval estimates alone should not be used to guide management.

Keren R, Muret-Wagstaff S, Goldmann D A, & Mandl K D. Notifying emergency department patients of negative test results: pitfalls of passive communication. *Pediatric Emergency Care. 19(4):226-230, Aug 2003.*

OBJECTIVE: Many emergency departments that perform a high volume of group A Streptococcus throat cultures inform patients or parents that unless they are notified of a positive result they can assume that their throat culture result is negative. Thus, positive throat culture results are communicated actively and negative results are communicated passively. We sought to determine the effectiveness and safety of such a system.

METHODS: Prospective cohort study of 301 consecutive patients who had group A Streptococcus throat cultures obtained between March 28, 2000, and May 10, 2000, in the emergency department of an urban, academic, tertiary-care children's hospital. Outcomes were determined by telephone surveys of patients or their parents or guardians. The primary outcome was whether respondents had accurate knowledge of the throat culture result. Secondary outcomes included receipt of appropriate treatment instructions, need for another telephone call to the emergency department or primary-care provider to clarify the result or treatment instructions, satisfaction with the communication process, and preference to receive both positive and negative results or just positive results.

RESULTS: Fifty-three percent of respondents did not have accurate knowledge of the throat culture result, 5% received inappropriate treatment instructions, 13% sought further clarification, 29% were dissatisfied with the communication process, and 85% preferred to receive both positive and negative results. Parents of patients with positive results were more likely to have accurate knowledge of the result (odds ratio 6.9, 95% confidence interval 1.4-65.7) and to be satisfied with the communication process.

CONCLUSIONS: Passive communication of negative throat culture results to patients seen in the emergency department can be unreliable. Active communication of both positive and negative results may improve patient knowledge and satisfaction and ensure appropriate therapy, but in the absence of automated notification systems, would be resource intensive.

Keyes LE. Underpaid Women, Stressed Out Men, Satisfied Emergency Physicians (Editorial). *Annals of Emergency Medicine. 51(6):729-731, June 2008.*

Kologlu M, Agalar F, & Cakmakci M. Emergency department information: Does it affect patients' perception and satisfaction about the care given in an emergency department? *European Journal of Emergency Medicine 6(3): 245-8, 1999.*

The aim of this study was to find out if informing the patients about the facts of an emergency department (ED) on arrival influences their behaviour and satisfaction about the care given in the ED. For 5 days an information form was distributed on arrival to all patients visiting the ED and a questionnaire directed at all patients when leaving the ED. For a former 3 days the same questionnaire directed at the patients was distributed without giving them the information form. This form contained information about how the ED functions, how long and why the patients wait, and which patients are taken care of first. The patients who were not given the information form served as the control group; the patients who were given an information form but did not read it were also included in the same control group. Questionnaires of the informed group and the control group were compared. A total of 397 patients were given a questionnaire; 288 of them were given an information form and 109 did not receive a form. The number of the patients who read the information form was 178 and the rest (219 patients) served as controls. The informed group was more satisfied about the care given to them ($p = 0.1$), the total time spent in the ED ($p = 0.3$), and the information given to them ($p = 0.1$). More patients in the informed group stated that they would prefer this ED next time or recommend it to others ($p = 0.02$). The overall degree in satisfaction of the informed patients was better ($p = 0.03$). The differences in the overall satisfaction and preference of this ED's parameters were statistically significant, the other parameters were not so significant. These results proved that giving general information to patients visiting the ED can influence the degree of their satisfaction.

Komoroski EM, Graham CJ, & Kirby RS. A comparison of interventions to improve clinic follow-up compliance after a pediatric emergency department visit. *Pediatric Emergency Care 12(2): 87-90, 1996.*

A randomized prospective study was made to compare two interventions to improve compliance with follow-up appointments (FA) after a pediatric emergency department (ED) visit. The study population was 253 patients and families

seen during daytime hours at a large pediatric ED and who required follow-up for their diagnosed condition. A control group of patients were told to call the clinic for FA, an appointment group of patients were given a FA in the ED prior to discharge and written reminder, and an intense group of patients were given a FA in the ED prior to discharge, a written reminder; they were offered a work excuse, child care, and transportation assistance; they were sent mailed reminders and had attempts at telephone reminders. More patients in the appointment group (47%, $P < 0.001$) and intense group (52%, $P < 0.001$) kept FA than the control group (24%). Attempted telephone contact was unsuccessful in 39% of the intense group. When telephone contact was successful, patients were more likely to keep FA (62 vs 38%, $P < 0.04$). Families left to make their own FA did so only 32% of the time. Medical record review of ED and clinic visits for one year after intervention indicated no long-term behavior change in appointment-making behavior or ED use in any group. It was concluded that providing a convenient FA prior to ED discharge improves compliance with clinic follow-up. If telephone contact is successful, telephone reminders also improve compliance. If follow-up is recommended, the majority of patients do not make their own appointments. A one-time intervention does not result in a long-term behavioral change in use of clinics or the ED.

Korsch B, Gozzi E, et al. (1968). Gaps in doctor-patient communication: I. Doctor-patient interactions and patient satisfaction. *Pediatrics*. 42: 855-871.

This is a classic study and one of the first studies conducted in an emergency clinic to observe communication behaviours.

OBJECTIVE: To test the hypothesis that there is a relationship between the nature of the verbal communication between doctor and patient, and the outcome in terms of satisfaction and response to medical advice.

DESIGN: Patient visits were studied by tape recording the medical interview, chart review and follow-up interview. The unit of study was defined as the initial encounter between a patient and a doctor. Interviews were held with the patients' mothers at two points in the study period: 1) immediately following the visit and 2) a follow up interview within 14 days of the visit.

SETTING: The Emergency Clinic at Children's Hospital of Los Angeles, a walk-in clinic with many common pediatric problems. Visits were short and more likely to result in specific advice to the parent. There was no long-standing relationship between patient and physician to influence the reason for visit and the child was not likely to have received previous advice on the same ailment.

SUBJECTS: The sample included 800 patient visits to the emergency clinic. Sixty four pediatricians were involved in visits that were part of the study. Most were full-time residents or fellows with 1-5 years experience in pediatrics and made up the regularly assigned staff of the emergency clinic.

INTERVENTION: None.

MEASURES: The responses from both sets of interviews were coded numerically to allow use of a computer.

RESULTS: Seventy-six percent of visits were rated as satisfactory. There was no significance to the length of time the interaction took or patient background. Dissatisfaction was related through expectations of warmth, sympathy which were not always evident and willingness to take time to respond to questions and provide explanations. Physician communication skills were spontaneously noted by many parents. Parents needed to know about the child's disease and what caused it. They wondered if they had been at fault or could have prevented the problem. Many needed to verbalize their fears to the doctor and wanted to hear explanations in language that had meaning to them, not medical jargon. The study noted that doctors' time is valuable and sometimes physicians wasted it by using ineffective communication, such as disagreeing with mothers about names for functions or repeating something over and over rather than trying to re-phrase it when the mother didn't seem to understand.

CONCLUSIONS: Communication issues rather than technical skills made a difference in satisfaction or dissatisfaction with pediatrician visits in this study.

Kyriacou DN, Handel D, Stein AC, & Nelson RR. Brief report: Factors affecting outpatient follow-up compliance of emergency department patients. *Journal of General Internal Medicine*. 20(10):938-942, October 2005.

BACKGROUND: Emergency department (ED) patients often fail to follow-up with referrals to outpatient clinics and physicians.

OBJECTIVE: To compare the effects of 2 ED discharge instructional methods on outpatient follow-up compliance and to evaluate sociodemographic characteristics as possible factors affecting outpatient follow-up compliance.

DESIGN AND PARTICIPANTS: Randomized trial of ED patients. At discharge, the intervention group had their follow-up appointment made and the standard group was given our hospital's referral service phone number to make their own follow-up appointment.

MEASUREMENTS: Outpatient clinics were called 1 month after each subject's ED discharge to ascertain if they followed-up.

Poisson regression was used to examine the effects of sociodemographic factors on follow-up compliance. **RESULTS:** Of 287 eligible subjects, 250 (87%) agreed to participate. Follow-up rates were 59% for the intervention group and 37% for the standard group ($P < .001$). Having a primary care physicians appeared to increase ED patients' outpatient follow-up compliance and having Medicaid insurance appeared to decrease outpatient follow-up compliance, but neither of these findings was statistically significant. **CONCLUSIONS:** In our ED, patients who have their outpatient follow-up appointment made at discharge have a significantly greater probability of follow-up compliance compared with patients given standard discharge instructions. Most sociodemographic characteristics do not affect our ED patients' follow-up compliance.

Langewitz W, Denz M, Keller A, et al. Spontaneous talking time at start of consultation in outpatient clinic: cohort study. *British Medical Journal*. 325:682-683, 2002.

Examined how long it would take outpatients at a tertiary referral centre to indicate they had completed their story if uninterrupted by their doctors. A sequential cohort of patients from the outpatient clinic of a university hospital participated (n=406; mean age 42.9 yrs). Doctors surreptitiously activated a stop watch at the start of the communication, and pressed it again when the patient indicated they wanted the doctor to take the lead. Mean spontaneous talking time was 92 seconds, and 78% of patients had finished their initial statement in 2 minutes. Seven patients talked for longer than 5 minutes. In all cases doctors felt that the patients were giving important information and should not be interrupted. Implications for patient treatment and doctor-patient communication are discussed. (PsycINFO Database Record (c) 2008 APA, all rights reserved)

Lau FL. Can communication skills workshops for emergency department doctors improve patient satisfaction? *Journal of Accident and Emergency Medicine*, 17(4): 251-3, 2000.

OBJECTIVE: To assess whether the attending of the communication skills workshops by the emergency department doctors improves patient satisfaction and reduces the number of complaints on doctors' attitude.

METHOD: Standard performas were sent to all emergency departments (EDs) in Hong Kong soliciting their numbers of written complaints on doctors' attitude or communication problems during the nine months before and after a series of communication skills workshops. Patient satisfaction surveys in four representative EDs, before and after the workshops, were collected and the satisfaction rates of doctors' attitude, explanation and advice were subsequently compared.

RESULTS: For the hospitals that responded, written complaints against doctors' attitude reduced from 26 (1 January 1995 to 30 September 1995) to 15 (1 July 1996 to 31 March 1997), amounting to a 42% reduction despite an increase of attendance from 724000 to 898000 ($p = 0.05$ chi2). From the 663 and 480 questionnaires collected before and after the workshops respectively, the satisfaction rate to doctors' attitude increases from 88.3% before to 98% after the workshops, while the satisfaction rate to explanation and advice provided by doctors increases from 79.8% to 93.8%.

CONCLUSION: Communication skills workshops in Hong Kong can improve ED doctors communication skills with a corresponding increase in patient satisfaction and reduction of complaints against ED doctors.

Lee JS, Tamayo-Sarver J, Kinneer P, & Hobgood C. Association between patient race/ethnicity and perceived interpersonal aspects of care in the Emergency Department. *Journal of the National Medical Association*. 100(1):79-85, January 2008.

This paper was presented at the Southeastern Regional Society for Academic Emergency Medicine Conference in Greensboro, NC in March 2006. It has also been presented at the National Society for Academic Emergency Medicine Conference in San Francisco, CA in May 2006. Objectives: To determine if perceptions of interpersonal aspects of care in the emergency department (ED) vary by patient race/ethnicity. Methods: Patients in a tertiary care academic ED responded to a 22-question survey focusing on interpersonal care aspects: affiliation, satisfaction, trust and participation. Scores for each of the four generated scales were compared in terms of race, ethnicity and other basic demographics. Results: African-American patients demonstrated significantly lower mean scores for trust of healthcare providers than Caucasians and significantly lower levels of participation. African-American race/ethnicity continued to be a significant predictor of lower levels of trust (but not participation) after accounting for age, gender, education, household income, health insurance, healthcare received in last six months and route of referral to the ED. Conclusion: Preliminary evidence suggests that African Americans may feel less trust toward their ED providers. Understanding this phenomenon and teaching providers how to reduce distrust may translate into better patient compliance/outcomes and reduce healthcare disparities.

Liu C, & Wissow LS. Residents who stay late at hospital and how they perform the following day. *Medical Education*. 42(1):74-81, January 2008.

CONTEXT: The limits imposed on the official working hours of paediatric residents do not necessarily reduce the amount of time they spend at work. Fatigue and stress can result from staying late voluntarily, and this in turn can alter clinical performance, much as long obligatory hours did in the past.

METHODS: A cross-sectional analysis was made of a systematic sample of 243 primary care visits conducted in 1990 by 52 paediatric residents at a teaching hospital. The paediatric residents reported on their work responsibilities the night before each primary care visit and their communication style during the visit was analysed from recordings made on audiotapes using the Roter Interactional Analysis System (RIAS).

RESULTS: Paediatric residents who care for critically ill children were more likely to stay late even if they were not on call. During primary care visits the next day, those paediatric residents who stayed late were more verbally dominant - their verbal input, as a proportion of the total, was: 0.67 (stayed late) versus 0.62 (on call), $P=0.007$; 0.67 (stayed late) versus 0.64 (left on time), $P=0.02$. Paediatric residents who stayed late displayed less patient-centredness: patient-centred talk as a proportion of total 0.31 (stayed late) versus 0.36 (on call), $P=0.02$; 0.31(stayed late) versus 0.34 (left on time), $P=0.03$. Compared with paediatric residents who left on time, those who stayed late reported feeling less fulfilled; if their clinic was in the afternoon, they also reported more fatigue.

CONCLUSIONS: The care of critically ill children may make paediatric residents more liable to remain at work after the end of their shift. The clinical interactions of such residents were more dominant and less patient-centred. Helping paediatric residents to learn to manage their work while under clinical stress could promote better adherence to guidelines on working hours and have a positive impact on patient care.

Lloyd G, Skarratts D, Robinson N, & Reid, C. Communication skills training for emergency department senior house officers- a qualitative study. *Journal of Accident and Emergency Medicine* 17(4): 246-50, 2000.

OBJECTIVE: To identify common weaknesses in senior house officer-patient consultation skills, and evaluate direct observation with feedback and negotiation of educational contracts, as a teaching tool in an emergency department setting.

METHOD: Common weaknesses were identified through review of feedback charts by three trained observers. Alteration in clinical and learning behaviour, as well as senior house officer and observer perceptions of the teaching were evaluated qualitatively by a combination of semistructured interviews and focus groups.

RESULTS: Several common weaknesses were identified, notably the use of closed questions, and poor negotiation and explanation of treatment plan and follow up. The senior house officers perceived improvement in their clinical practice, welcomed feedback, and subsequently set, though did not complete educational contracts. While comfortable with this style of teaching, the observers felt that it did not make efficient use of teaching time.

CONCLUSIONS: This study identifies common weaknesses in the consultation skills of emergency department senior house officers and confirms the need for training in this area. Direct observation is effective in changing behaviour to this end, though self directed learning is not necessarily stimulated. Video recorded consultations with group feedback may be a more effective teaching tool.

Masso M, Bezzina A, Siminski P, Middleton R, & Eagar K. Why patients attend emergency departments for conditions potentially appropriate for primary care: Reasons given by patients and clinicians differ. *Emergency Medicine Australasia*. 19(4):333-340, August 2007.

OBJECTIVES: To compare reasons identified by clinical staff for potential primary care attendances to the ED with those previously identified by patients.

METHODS: Survey of staff and primary care patients in five ED in New South Wales, Australia using questionnaire based on reasons identified in published studies.

RESULTS: Clinicians in the survey identify a broader spectrum of reasons for potential primary care cases presenting to the ED than the patients themselves report. Doctors reported on average 4.1 very important reasons and nurses 4.8 compared with patients 2.4 very important reasons. The main reasons identified by both doctors and nurses were similar and quite different to those identified by patients. Clinicians were more likely to emphasize cost and access issues rather than acuity and complexity issues. There was no difference within the clinician group between doctors and nurses nor by varying levels of experience. Furthermore doctors with significant experience in both primary care and emergency medicine did not differ from the overall clinicians' pattern.

CONCLUSIONS: These data confirm that clinician perspectives on reasons for potential primary care patients' use of ED differ quite markedly from the perspectives of patients themselves. Those differences do not necessarily represent a punitive or blaming philosophy but will stem from the very different paradigms from which the two protagonists approach the interactions, reflecting the standard tension in a provider - consumer relationship. If policy is to be developed to improve system use and access, it must take both perspectives into account with respect to redesign, expectations and education.

McCann T, Clark E, McConnachie S, & Harvey I. Deliberate self-harm: emergency department nurses' attitudes, triage and care intentions. *Journal of Clinical Nursing*. 16(9):1704-1711, September 2007.

AIM AND OBJECTIVES: This study investigates emergency department nurses' attitudes towards patients who engage in deliberate self-harm. It examines their attitudes towards, and triage and care decisions with, patients who self-harm.

BACKGROUND: Emergency department nurses sometimes show unsympathetic attitudes towards patients who present with self-harm and these can contribute to difficulties in assessing and providing appropriate care.

DESIGN: A modified version of the Suicide Opinion Questionnaire was used. A non-probability sample of 43 emergency department nurses from a large Australian hospital participated in the study. Data were analysed using SPSS.

RESULTS: Most nurses had received no educational preparation to care for patients with self-harm; over 20% claimed that the department either had no practice guidelines for deliberate self-harm or they did not know of their existence and one-third who knew of them had not read them. Overall, nurses had sympathetic attitudes towards patients who self-harm, including both professional and lay conceptualizations of deliberate self-harm. They did not discriminate against this group of patients in their triage and care decisions.

CONCLUSIONS: The findings of this exploratory study are important because attitudes can affect care decisions. Recommendations are made for improving the educational preparation of emergency department nurses, for improving awareness and implementation of practice guidelines, and for improving attitudes towards patients with deliberate self-harm. Further research is needed to confirm these results.

Mercer LM, Tanabe P, Pang PS, Gisondi MA, Courtney DM, Engel KG, Donlan SM, Adams JG, & Makoul G. Patient perspectives on communication with the medical team: Pilot study using the communication assessment tool-team (CAT-T). *Patient Education and Counseling*. 73(2):220-223, 2008.

OBJECTIVE: Effective communication is an essential aspect of high-quality patient care and a core competency for physicians. To date, assessment of communication skills in team-based settings has not been well established. We sought to tailor a psychometrically validated instrument, the Communication Assessment Tool, for use in Team settings (CAT-T), and test the feasibility of collecting patient perspectives of communication with medical teams in the emergency department (ED).

METHODS: A prospective, cross-sectional study in an academic, tertiary, urban, Level 1 trauma center using the CAT-T, a 15-item instrument. Items were answered via a 5-point scale, with 5 = excellent. All adult ED patients ([greater-than or equal to]18 y/o) were eligible if the following exclusion criteria did not apply: primary psychiatric issues, critically ill, physiologically unstable, non-English speaking, or under arrest.

RESULTS: 81 patients were enrolled (mean age: 44, S.D. = 17; 44% male). Highest ratings were for treating the patient with respect (69% excellent), paying attention to the patient (69% excellent), and showing care and concern (69% excellent). Lowest ratings were for greeting the patient appropriately (54%), encouraging the patient to ask questions (54%), showing interest in the patient's ideas about his or her health (53% excellent), and involving the patient in decisions as much as he or she wanted (53% excellent).

CONCLUSION: Although this pilot study has several methodological limitations, it demonstrates a signal that patient assessment of communication with the medical team is feasible and offers important feedback. Results indicate the need to improve communication in the ED. Practice implications: In the ED, focusing on the medical team rather than individual caregivers may more accurately reflect patients' experience.

Messner ER, Reck DL, & Curci K. Effectiveness of a patient education brochure in the emergency department. *Advanced Emergency Nursing Journal*. 27(4):251-255, October/December 2006.

This study was done to determine whether a recently developed emergency department patient education brochure improved patient satisfaction with their emergency department visit. The secondary objectives were to determine whether the brochure was appropriate in terms of readability if it provided information that helped patients understand what to expect from their visit and what aspects of the brochure could be improved. There were no major risks to the patients who participated in this study. There were no identifying data collected as part of the survey. The survey was anonymous.

Mione MA. Examining the Controversy: Patient satisfaction surveys in the emergency department. *Topics in Emergency Medicine. Innovations in Management*. 28(2):120-124, April/June 2006.

Patient satisfaction surveys have recently become the leading tools utilized by the leaders of healthcare organizations to ascertain necessary improvements of the quality and delivery of care to the consumers they service. However, much debate and controversy has erupted concerning the actual information contained within the surveys, and the data that are obtained from their analysis. The studies and articles presented suggest an array of research that overwhelmingly suggests the need for a standardized national survey, or newly developed tool of assessment, which should be customized and tailored to the individual environments and settings that wish to assess patient satisfaction.

Mitchell AM, Garand L, Dean D, Panzak G, & Taylor M. Suicide assessment in hospital emergency departments: Implications for patient satisfaction and compliance. *Topics in Emergency Medicine. Patient Satisfaction in the Emergency Department*. 27(4):302-312, Oct/Dec 2005.

Suicide is a complex, multidimensional event with a host of contributing factors. Suicidal emergencies are among other behavioral and psychiatric emergencies that provide the basis for emergency department visits. Therefore, emergency departments are ideal clinical environments for the assessment of suicidal patients. A case example from an emergency department visit is provided as a basis of discussion as we describe subpopulations at high risk for suicide and review critical assessment parameters for the recognition and treatment of suicidal patients. Finally, factors associated with patient satisfaction and treatment compliance are addressed to promote positive health outcomes among suicidal patients.

Monico E, Larkin GL, & Degutis L. Informed consent for research: Current practices in academic emergency medicine. *Academic Emergency Medicine*. 15(6):573-576, June 2008.

BACKGROUND: The emergency department (ED) environment presents unique barriers to the process of obtaining informed consent for research.

OBJECTIVES: The objective was to identify commonalities and differences in informed consent practices for research employed in academic EDs.

METHODS: Between July 1, 2006, and June 30, 2007, an online survey was sent to the research directors of 142 academic emergency medicine (EM) residency training programs identified through the Accreditation Council for Graduate Medical Education (ACGME).

RESULTS: Seventy-one (50%) responded. The average number of simultaneous clinical ED-based research projects reported

was 7.3 (95% confidence interval [CI] = 5.53 to 9.07). Almost half (49.3%) of respondents reported that EM residents are responsible for obtaining consent. Twenty-nine (41.4%) participating institutions do not require documentation of an individual resident's knowledge of the specific research protocol and consent procedure before he or she is allowed to obtain consent from research subjects.

CONCLUSIONS: It is common practice in academic EDs for clinical investigators to rely on on-duty health care personnel to obtain research informed consent from potential research subjects. This practice raises questions regarding the sufficiency of the information received by research subjects, and further study is needed to determine the compliance of this consent process with federal guidelines.

Moore KW, & Schwartz KS. Psychosocial support of trauma patients in the emergency department by nurses, as indicated by communication. *Journal of Emergency Nursing* 19(4): 297-302, 1993.

OBJECTIVE: To test the hypothesis that a difference exists between the perception of the nurse and that of the observer regarding the extent of verbal and nonverbal communication that occurs between nurses and trauma victims (and their families) in the emergency setting.

DESIGN AND SETTING: Typical descriptive design study completed in a large metropolitan emergency and trauma center in central Michigan.

METHODS: Verbal and nonverbal interaction between nurses and trauma victims and their families were observed by one of two researchers and scored with the Moore-Schwartz Data Collection Tool. The nurses then self-reported these same items.

RESULTS: Significant differences existed between the researchers' scores and the nurses' self-report scores. This was demonstrated by the Spearman Rank Correlation Coefficient (0.2361, $p = 0.05$), the Wilcoxon Signed-Ranks Test (61.50, $p = 0.0004$), and the test (-3.35, $p = 0.01$). The Spearman Rank Correlation Coefficient also demonstrated significant relationships between the nurses' self-report scores and age (0.3716, $p = 0.05$), gender (-0.360, $p = 0.05$), and educational level (-0.4209, $p = 0.05$). No relationship was found between the nurses' self-report scores and the trauma score or age of the patient, or years of emergency department nursing experience.

CONCLUSION: Nurses report that they are communicating verbally and nonverbally with trauma victims and their families in the emergency setting, but often were not observed to be doing so. Emergency nurses may not be delivering the holistic care and psychosocial support that they believe they are.

Moskop JC. Informed consent in the emergency department. *Emergency Medicine Clinics of North America* 17(2): 327-40, ix-x, 1999.

This article reviews the doctrine of informed consent to treatment, with particular attention to its role in the emergency department. The article begins with a brief look at the moral and legal foundations of informed consent. The article then examines the three essential features of informed consent, patient capacity, disclosure of information, and voluntariness. After a review of five exceptions to the duty to obtain informed consent, the article concludes with a brief summary of issues of special significance for emergency physicians.

Moskop JC, Geiderman JM, Hobgood CD, & Larkin GL. Emergency physicians and disclosure of medical errors. *Annals of Emergency Medicine*. 48(5):523-531, November 2006.

Error in medicine is a subject of continuing interest among physicians, patients, policymakers, and the general public. This article examines the issue of disclosure of medical errors in the context of emergency medicine. It reviews the concept of medical error; proposes the professional duty of truthfulness as a justification for error disclosure; examines barriers to error disclosure posed by health care systems, patients, physicians, and the law; suggests system changes to address the issue of medical error; offers practical guidelines to promote the practice of error disclosure; and discusses the issue of disclosure of errors made by another physician.

Muntlin A, Gunningberg L, & Carlsson M. Patients' perceptions of quality of care at an emergency department and identification of areas for quality improvement. *Journal of Clinical Nursing*. 15(8):1045-1056, August 2006.

AIMS: This paper reports a study to identify patient's perceptions of quality of care at an emergency department and areas for quality improvement.

BACKGROUND: Patients are not always satisfied with the care received at emergency departments. More attention needs to be paid to the specific needs and expectations of the non-urgent group of patients, who make up the majority of attenders at many emergency departments. Nurses' and physicians' perceptions about good quality of care do not always agree with patients' perceptions. Instruments measuring patient satisfaction have often been focused on inpatient treatment.

METHOD: A prospective, descriptive survey design was adopted and the study took place in one emergency department at a Swedish university hospital in 2002. The participants were 99 women and 101 men, with an average age of 51 years. The emergency department version of the questionnaire Quality from the Patient's Perspective was used for data collection.

RESULTS: Patients estimated quality of care at the emergency department as fairly good, but there were areas in need of improvement. A high percent of inadequate quality was related to the environment in the emergency department. About

20% of patients reported that they did not receive effective pain relief. More than 20% estimated that nurses did not show an interest in their life situation and patients did not receive useful information on self-care and about which physician was responsible for their medical care.

CONCLUSIONS: The use of a research-based instrument gave valuable information for quality improvement in clinical practice. Many of the identified areas for quality improvement are related to nursing care. Therefore, the importance of nursing care in the emergency department should be highlighted to nurses and physicians and they also need to be more attentive to the need of the individual patient.

Relevance to clinical practice: Identifying areas for quality improvements are important, to know where to take action. These findings may facilitate the work with changing attitudes and working routines, which are needed to deliver effective care and to improve patients' perceptions of quality of care at emergency departments.

Nerney M, Chin M, Jin L, Karrison TG, Walter J, Mulliken R, Miller A, Hayley D, & Friedmann P. Factors associated with older patients' satisfaction with care in an inner-city emergency department. *Annals of Emergency Medicine.* 38(2):140-145, August 2001.

STUDY OBJECTIVES: We sought to assess older patients' satisfaction with care in the emergency department and to identify factors associated with global satisfaction with care.

METHODS: We performed a prospective cohort study of 778 patients 65 years of age and older presenting to an urban academic ED between 1995 and 1996, of whom 79% were black and 63% were female. A baseline survey at presentation to the ED asked for demographic information, medical history, and health-related quality of life information. A follow-up satisfaction survey asked patients to rate the care they received in the ED on a 5-point Likert scale (1=excellent, 5=poor). Overall satisfaction with care, dichotomized into responses of "excellent" versus all others, was the primary dependent variable in our bivariate analyses.

RESULTS: Of respondents, 40% rated their ED care as "excellent." Variables significantly correlated with high satisfaction include having the perception of time spent in the ED as not "too long," having the **emergency** physicians and nurses clearly answer patients' questions, having a relationship of trust with an ED staff member, being told why tests were done, feeling involved in decisions about care as much as they wanted, having pain addressed fully, having a perception of greater health status, and having fewer comorbid conditions at the time of the ED visit. Results may be applicable only to urban academic EDs and may be limited by time elapsed between ED visits and follow-up surveys.

CONCLUSION: To improve quality of care for older adults in the ED, physicians should be more attentive to older patients' concerns and questions, recognize and aggressively treat pain, and reduce the patients' perception of a long waiting time.

Olive P. Care for emergency department patients who have experienced domestic violence: A review of the evidence base. *Journal of Clinical Nursing.* 16(9):1736-1748, September 2007.

AIMS: A literature review was conducted to identify and evaluate the research base underpinning care for emergency department patients who have experienced domestic violence.

BACKGROUND: The extent of domestic violence in the general population has placed it high on health and social policy agendas. The Department of Health has recognized the role of health care professionals to identify and provide interventions for patients who have experienced domestic violence.

METHOD: Systematic review.

RESULTS: At least 6% of emergency department patients have experienced domestic violence in the previous 12 months although actual prevalence rates are probably higher. Simple direct questioning in a supportive environment is effective in facilitating disclosure and hence detecting cases of abuse. Although routine screening is most effective, index of suspicion screening is the current mode of practice in the UK. Index of suspicion screening is likely to contribute to under-detection and result in inequitable health care. Patients with supportive networks have reduced adverse mental health outcomes. Women will have negative perceptions of emergency care if their abuse is minimized or not identified. Women want their needs and the needs of their children to be explored and addressed. Access to community resources is increased if patients receive education and information.

CONCLUSION: Domestic violence is an indisputable health issue for many emergency department patients. Practitioners face challenges from ambiguity in practice guidelines and the paucity of research to support interventions. Recommendations for practice based on the current evidence base are presented.

Relevance to clinical practice: The nursing care for patients in emergency and acute health care settings who have experienced domestic violence should focus on three domains of: (1) Providing physical, psychological and emotional support; (2) Enhancing safety of the patient and their family; (3) Promoting self-efficacy.

Ong S, Nakase J, Moran GJ, Karras DJ, Kuehnert M, & Talan DA. Emergency ID net study group antibiotic use for emergency department patients with upper respiratory infections: Prescribing practices, patient expectations, and patient satisfaction. *Annals of Emergency Medicine.* 50(3):213-220, September 2007.

STUDY OBJECTIVE: Physicians often prescribe antibiotics to patients even when there is no clear indication for their use.

Previous studies examining antibiotic use in acute bronchitis and upper respiratory infections have been conducted in primary care settings. We evaluate the factors that physicians in the emergency department (ED) consider when prescribing antibiotics (eg, patient expectations) and the factors associated with patient satisfaction.

METHODS: Ten academic EDs enrolled adults and children presenting with symptoms consistent with upper respiratory infection. Enrolled patients were interviewed before their physician encounter and were reinterviewed before discharge and 2 weeks later. Physicians were interviewed about factors that influenced their management decisions, including their perceptions of patients' expectations. Patients with a single diagnosis of uncomplicated acute bronchitis or upper respiratory infection were included for analysis.

RESULTS: Of 272 patients enrolled, 68% of bronchitis patients and 9% of upper respiratory infection patients received antibiotics. Physicians were more likely to prescribe antibiotics when they believed that patients expected them (odds ratio [OR] 5.3; 95% confidence interval [CI] 2.9 to 9.6), although they were able to correctly identify only 27% of the patients who expected antibiotics. Satisfaction with the ED visit was reported by 87% of patients who received antibiotics and 89% of those not receiving antibiotics. Visit satisfaction was reported by 92% of patients who believed they had a better understanding of their illness but only by 72% of those who thought they had no better understanding (OR 4.4; 95% CI 2.0 to 8.4).

CONCLUSION: Physicians in our academic EDs prescribed antibiotics to 68% of acute bronchitis patients and to fewer than 10% of upper respiratory infection patients. Physicians were more likely to prescribe antibiotics to patients who they believed expected them, although they correctly identified only about 1 in 4 of those patients. Patient satisfaction was not related to receipt of antibiotics but was related to the belief they had a better understanding of their illness.

Pagnamenta R, & Bengner JR. Factors influencing parent satisfaction in a children's emergency department: Prospective questionnaire-based study. *Emergency Medicine Journal*. 25(7):417-9, July 2008.

OBJECTIVE: To identify the factors considered by parents to be most important in determining overall satisfaction with care in a children's emergency department, and to assess whether these factors are influenced by the child's age and triage category.

DESIGN: A prospective questionnaire-based study of parents attending a paediatric emergency department with their child.

SETTING: Bristol Royal Hospital for Children, Bristol, UK. **PARTICIPANTS:** The parent or next of kin adult accompanying a child to the emergency department during the study period.

OUTCOME MEASURES: The primary outcome measure was the response to the questionnaire. The secondary outcome analysed responses according to the child's age and triage category.

RESULTS: During the sampling period questionnaires were distributed to the parent or accompanying adult of 247 children, of which 225 (91%) were completed. The most important factors were: a clear explanation of the child's diagnosis and treatment plan; the ability of a parent to stay with their child at all times; rapid and adequate pain relief; and staff attitude. These factors significantly outranked waiting times and other process issues. The age and triage category of the child did not influence these preferences.

CONCLUSION: Despite recent emphasis on waiting times and emergency department throughput in the UK, parents still value the clinical interaction above process issues when their child visits an emergency department. Current efforts to reduce the time spent by children in an emergency department must not undermine the core service values that are most appreciated by parents, and which will lead to the greatest satisfaction.

Pearson DA, Bruggman AR, & Haukoos JS. Out-of-hospital and emergency department utilization by adult homeless patients. *Annals of Emergency Medicine*. 50(6):646-652, December 2007.

STUDY OBJECTIVE: Homeless adults visit emergency departments (EDs) nearly 4 times more often than the general population and are among the highest repeat visitors. Little research, however, has determined resource utilization patterns of homeless patients and the extent to which they may benefit from emergency care. The objectives of this study are to describe emergency medical services and hospital utilization by homeless patients and to estimate their benefit of ED care.

METHODS: This was a retrospective cohort study performed at an urban safety-net hospital. All patients who presented to the ED during 2003 were identified. Simple random samples of 300 homeless adult patients and 300 nonhomeless adult patients were identified and included as the study sample. Variables collected included patient demographics, medical history, ED visit date and times, results of laboratory studies, disposition from the ED, diagnoses, ambulance use, number of previous ED visits, and estimated benefit of emergency treatment as determined by a previously developed consensus-based instrument.

RESULTS: Homeless patients were slightly older (41 years [interquartile range (IQR) 34 to 48 years] versus 36 years [IQR 25 to 46 years]) and had substantially higher substance abuse histories but had similar medical and psychiatric comorbidities compared with nonhomeless patients. Homeless patients also spent more time in the ED per visit (4.4 hours [IQR 2.6 to 7.5 hours] versus 3.8 hours (IQR 2.1 to 5.7 hours)), were less likely to be admitted to the hospital (8% versus 19%), and were more likely to use ambulance services (51% versus 29%). Finally, homeless patients received a similar level of estimated benefit of emergency treatment compared with nonhomeless patients, and a substantial proportion of their visits was directly related to excessive alcohol use.

CONCLUSION: Homeless adults commonly use emergency care resources, and medical benefit, although comparable to that of nonhomeless adults, is in many cases uncertain.

Pines J, Iyer S, Disbot M, Hollander JE, Shofer FS, & Datner EM. The effect of emergency department crowding on patient satisfaction for admitted patients. *Academic Emergency Medicine*. 15(9):825-831, September 2008.

OBJECTIVES: The objective was to study the association between factors related to emergency department (ED) crowding and patient satisfaction.

METHODS: The authors performed a retrospective cohort study of all patients admitted through the ED who completed Press-Ganey patient satisfaction surveys over a 2-year period at a single academic center. Ordinal and binary logistic regression was used to study the association between validated ED crowding factors (such as hallway placement, waiting times, and boarding times) and patient satisfaction with both ED care and assessment of satisfaction with the overall hospitalization.

RESULTS: A total of 1,501 hospitalizations for 1,469 patients were studied. ED hallway use was broadly predictive of a lower likelihood of recommending the ED to others, lower overall ED satisfaction, and lower overall satisfaction with the hospitalization ($p < 0.05$). Prolonged ED boarding times and prolonged treatment times were also predictive of lower ED satisfaction and lower satisfaction with the overall hospitalization ($p < 0.05$). Measures of ED crowding and ED waiting times predicted ED satisfaction ($p < 0.05$), but were not predictive of satisfaction with the overall hospitalization.

CONCLUSIONS: A poor ED service experience as measured by ED hallway use and prolonged boarding time after admission are adversely associated with ED satisfaction and predict lower satisfaction with the entire hospitalization. Efforts to decrease ED boarding and crowding might improve patient satisfaction.

Pitrou I, Lecourt AC, Bailly L, Brousse B, Dauchet L, & Ladner J. Waiting time and assessment of patient satisfaction in a large reference emergency department: A prospective cohort study, France. *European Journal of Emergency Medicine*. 16(4):177-182, August 2009.

OBJECTIVES: To assess patient satisfaction in a French Emergency Department (ED) and to determine factors associated with dissatisfaction.

METHODS: From July 2003 to February 2004, a prospective cohort study was conducted in an ED (Elbeuf Reference Hospital, Upper-Normandy region). Baseline data collection was performed during individual interview at inclusion. Waiting time in the ED was recorded. Patient satisfaction was assessed by telephone 1 month later. Questions included assessment of overall satisfaction and three different areas of satisfaction: quality of reception, patient-doctor communication, and delays.

RESULTS: One hundred sixty-five patients were included, 146 patients (88.5%) responded to the telephone follow-up. We found high levels of satisfaction in the ED (89.7%). Highest satisfaction rate (92.5%) was for reception. Lower satisfaction rates were reported for waiting times (72.6%) and medical information provided by physicians (71.9%). The mean total time spent was 149.9 min (median=133.5). In multivariate analysis, waiting time was the unique independent determinant of patient dissatisfaction: second quartile odds ratio (OR)=0.40; 95% confidence interval (CI)=(0.06-2.66), third quartile OR=1.45; 95% CI=(0.32-6.47), last quartile OR=2.69; 95% CI=(0.65-11.08); $p_{trend}=0.04$.

CONCLUSION: Elevated waiting times appeared as the unique independent risk factor of patient dissatisfaction. Information on delays and reasons for this delay could be systematically communicated to patients attending EDs; it could be an effective strategy to reduce perceived waiting times and improve patient satisfaction.

Pompili M, Girardi P, Ruberto A, Kotzalidis GD, & Tatarelli R. Emergency staff reactions to suicidal and self-harming patients. *European Journal of Emergency Medicine*. 12(4):169-178, August 2005.

Staff in the emergency departments of hospitals are reported as being negative or ambivalent toward suicidal or self-harming individuals. According to the literature, these patients are subjected to stigmatization and lack of empathy. This phenomenon has been linked to a decreased quality of care offered to these individuals and to missing an important opportunity to prevent further suicidal behavior or repetition of deliberate self-harm. Also, protocols, proper guidelines and education for the emergency staff call for a revision and an implementation. In this paper, evidence suggesting staff attitudes toward suicidal and self-harming patients is reviewed. An overview of related issues such as clinical judgment, the use of scales and nurses' role is also included in this report.

Rhodes KV, Vieth T, He T, Miller A, Howes DS, Bailey O, Walter J, Frankel R, & Levinson W. Resuscitating the physician-patient relationship: Emergency department communication in an academic medical center. *Annals of Emergency Medicine*. 44(3):262-267, September 2004.

STUDY OBJECTIVE: We characterize communication in an urban, academic medical center emergency department (ED) with regard to the timing and nature of the medical history survey and physical examination and discharge instructions.

METHODS: Audiotaping and coding of 93 ED encounters (62 medical history surveys and physical examinations, 31 discharges) with a convenience sample of 24 emergency medicine residents, 8 nurses, and 93 nonemergency adult patients.

RESULTS: Patients were 68% women and 84% black, with a mean age of 45 years. Emergency medicine providers were 70%

men and 80% white. Of 62 medical history surveys and physical examinations, time spent on the introduction and medical history survey and physical examination averaged 7 minutes 31 seconds (range 1 to 20 minutes). Emergency medicine residents introduced themselves in only two thirds of encounters, rarely (8%) indicating their training status. Despite physician tendency (63%) to start with an open-ended question, only 20% of patients completed their presenting complaint without interruption. Average time to interruption (usually a closed question) was 12 seconds. Discharge instructions averaged 76 seconds (range 7 to 202 seconds). Information on diagnosis, expected course of illness, self-care, use of medications, time-specified follow-up, and symptoms that should prompt return to the ED were each discussed less than 65% of the time. Only 16% of patients were asked whether they had questions, and there were no instances in which the provider confirmed patient understanding of the information.

CONCLUSION: Academic EDs present unique challenges to effective communication. In our study, the physician-patient encounter was brief and lacking in important health information. Provision of patient-centered care in academic EDs will require more provider education and significant system support.

Robinson S, & Mercer S. Older adult care in the emergency department: Identifying strategies that foster best practice. *Journal of Gerontological Nursing*. 33(7):45-47, July 2007.

The goals of this study were to obtain a profile of older adults who are treated in the emergency department, examine their length of stay and contributing factors, and determine nurses' knowledge and perception of care provided to older adults. The records of 206 older adults were reviewed. Emergency department nurses completed the Geriatric Institutional Assessment Profile, which measures knowledge of older adult care. The majority of older patients were community-dwelling women who required urgent care. The most common reason for the emergency department visit was a fall. Mean time older adults spent in the emergency department was longer than 5 hours, and nearly half were admitted to the hospital. Nurses scored lowest in pressure ulcer prevention and appropriate urinary catheter usage. Emergency department nurses are challenged to combine gerontological knowledge that focuses on basic care of older adults with their knowledge and skills in dealing with emergency situations.

Safdar B, Heins A, Homel P, Miner J, Neighbor M, DeSandre P, & Todd KH. for the Pain and Emergency Medicine Initiative Study Group. Impact of physician and patient gender on pain management in the emergency department-A multicenter study. *Pain Medicine*. 10(2):364-372, March 2009.

OBJECTIVE. Pain is a complex experience influenced by factors such as age, race, and ethnicity. We conducted a multicenter study to better understand emergency department (ED) pain management practices and examined the influence of patient and provider gender on analgesic administration.

DESIGN. Prospective, multicenter, observational study.

SETTING. Consecutive patients, ≥ 8 -years-old, presenting with complaints of moderate to severe pain (pain numerical rating scale [NRS] > 3) at 16 U.S. and three Canadian hospitals.

Outcomes Measures. Receipt of any ED analgesic, receipt of opioids, and adequate pain relief in the ED.

RESULTS. Eight hundred forty-two patients participated including 56% women. Baseline pain scores were similar in both genders. Analgesic administration rates were not significantly different for female and male patients (63% vs 57%, $P = 0.08$), although females presenting with severe pain (NRS ≥ 8) were more likely to receive analgesics (74% vs 64%, $P = 0.02$). Female physicians were more likely to administer analgesics than male physicians (66% vs 57%, $P = 0.009$). In logistic regression models, predictors of ED analgesic administration were male physician (odds ratio [OR] = 0.7), arrival pain (OR = 1.3), number of pain assessments (OR = 1.83), and charted follow-up plans (OR = 2.16). With regard to opioid administration, female physicians were more likely to prescribe opioids to females ($P = 0.006$) while male physicians were more likely to prescribe to males ($P = 0.05$). In logistic regression models, predictors of opioids administration included male patient gender (OR = 0.58), male patient-physician interaction (OR = 2.58), arrival pain score (OR = 1.28), average pain score (OR = 1.10), and number of pain assessments (OR = 1.5). Pain relief was not impacted by gender.

CONCLUSION. Provider gender as opposed to patient gender appears to influence pain management decisions in the ED.

Schears RM. Emergency physicians' role in end-of-life care. *Emergency Medicine Clinics of North America*, 17(2): 539-59, 1999.

End-of-life care, as it merges with emergency medicine, raises as many ethical issues as it does clinical judgments. The role of the ED physician as it pertains to end-of-life treatment options encompasses a vast array of variables that should nevertheless center on patient welfare. The choice between ethical responses and trained reactions is an ever-present reality in emergency medicine, and the instinct to perform aggressive procedures may overshadow the professional purpose to inform, comfort, counsel, and treat. The exercise of clinical judgment should be balanced by previously reasoned ethical conduct codes when it comes to end-of-life emergent care.

Scott T. Expression of humour by emergency personnel involved in sudden deathwork. *Mortality*. 12(4):350-364, November 2007.

This research paper provides an analysis of humour expression as a primary coping mechanism by emergency personnel involved in sudden deathwork in the accident and emergency environment. For a number of decades, the expression of humour has been of interest to philosophers, social psychologists, sociologists, and social anthropologists. More recently the subject captured the attention of researchers of the service professions particularly, in relation to the beneficial expression of humour by emergency personnel. The research took place in accident and emergency departments at hospitals in the North of England. Nine focus groups were conducted on three sets of nurses in three accident and emergency departments, three groups of paramedics at their respective hospital ambulance station, and three groups of traffic officers from one Constabulary covering the geographical area of the three hospitals. The results identified seven themes containing examples of the expression of humour in sudden death encounters from everyday practice. The discussion explains how sudden death has become an existential problem generating societal fears about mortality, decay, and decomposition, which impact on how emergency personnel feel about and handle the sudden death aspect of their role. The value of humour as a stress reducing mechanism is recognized by emergency personnel and acknowledged as a normalizing characteristic of emergency care culture.

Seghieri C, Sandoval GA, Brown AD, & Nuti S. Where to focus efforts to improve overall ratings of care and willingness to return: The case of tuscan emergency departments. *Academic Emergency Medicine*. 16(2):136-144, February 2009.

OBJECTIVES: Both regression and optimization models were used to identify an efficient combination of aspects of care (e.g., comfort of waiting room) necessary to improve global emergency department (ED) patient satisfaction. The approach, based on patient survey data, tends to favor aspects of care with large regression coefficients and those whose current performance is low, because improvements produce a greater effect on global satisfaction.

METHODS: The authors used ED patient satisfaction survey data collected between September and October 2007 from a random sample of 5,277 adult patients who visited 43 EDs in Tuscany, Italy. Ordinal logistic regression models were run to predict overall ratings of care and willingness to return using 20 independent variables (i.e., aspects of care). An optimization model was run to increase these two global items to a maximum of 15%. This model minimizes the total combined percentage increase of the aspects of care. Models using all cases (n = 5,277), cases from local hospitals (n = 4,264), and cases from teaching hospitals (n = 1,013) were run.

RESULTS: Four aspects selected by the optimization algorithm were in all models: "satisfaction with waiting time," "comfort of the waiting room," "professionalism of physicians" (technical skills), and "level of collaboration between physicians and nursing staff." Most aspects needed a 15% increase to comply with the percentage increases set for the global satisfaction items. The model found that to increase overall ratings of care by 1, 2, or 8%, hospitals would need to focus only on one aspect: "level of collaboration between physicians and nursing staff." The total number of variables increased to six when the improvement in overall ratings of care was set at 15%. To increase 3 or 5% willingness to return, the optimization algorithm found that 6 or 14 aspects, respectively, are needed. An increase of 6% or more was unfeasible.

CONCLUSIONS: This approach is only somewhat efficient, as a cost structure is absent. The optimization model assumes that the cost to increase each aspect by 1% is equivalent. By applying this modeling technique we have demonstrated that, at least, two elements are important to consider when developing efficient improvement strategies to increase global satisfaction: 1) the current level of satisfaction of the aspects of care and 2) the importance ascribed to the aspects of care. A third element, the cost to increase the aspects of care, might also be important. However, the impact of this element on the optimal solution is currently unknown.

Serinken M, Zencir M, Karcioğlu O, Sener S, & Turkcuer I. Value of the timing of informing the emergency department patients on cardiac test results: A randomized controlled study. *European Journal of Emergency Medicine*. 16(2):74-79, April 2009.

OBJECTIVE: This study is designed to investigate the role of written information, and the value of its timing, provided to Emergency Department (ED) patients regarding cardiac enzyme tests (CET), on their personal concerns about their health status and their discussions with the emergency physicians as to their normal health status post-test.

MATERIALS AND METHODS: This is a prospective randomized controlled study. All consecutive patients used for this study were admitted to the university-based ED within the 6-month study period with the presenting chief complaint of atypical chest pain, which was considered as the presumptive diagnosis. CET was ordered to rule out acute coronary syndromes, and these patients were enrolled into the study groups.

RESULTS: The study sample included 523 patients whose CET were ordered and who were therefore eligible for the study. Three groups were similar in terms of persuasion and anxiety scores. Groups, which were informed about the test by leaflet had lower anxiety and persuasion scores. The lowest anxiety scores were found especially in the group in which the information was given before CET was drawn (P<0.001). The effects of monitoring on patients and providing information with a leaflet were found significant on reassurance scores (P=0.006, P<0.001). Reassurance scores of the patients on whom at least one of the procedures, for example, monitoring, more than one electrocardiogram and chest radiograph, had been

carried out, showed significant difference compared with those on whom neither of these procedures had been done during the ED observation (P=0.001).

CONCLUSION: Written information provided to patients undergoing cardiac tests in ED population was found effective on anxiety and persuasion scores.

Shayne P, Gallahue F, Rinnert S, Anderson CL, Hern G, & Katz E. CORD SDOT Study Group. Reliability of a core competency checklist assessment in the emergency department: The Standardized Direct Observation Assessment Tool. *Academic Emergency Medicine*. 13(7):727-32, July 2006.

OBJECTIVES: A Council of Emergency Medicine Residency Directors task force developed the Standardized Direct Observation Assessment Tool (SDOT), a 26-item checklist assessment tool to evaluate Accreditation Council for Graduate Medical Education resident core competencies by direct observation. Each of the checklist items is assigned to one or more of five core competencies. The objective of this study was to test the interrater measurement properties of the SDOT instrument.

METHODS: Two videos of simulated patient-resident-attending physician encounters were produced. Academic emergency medicine faculty members not involved in the development of the form viewed the two encounters and completed the SDOT for each. Faculty demographic data were collected. Data were collected from 82 faculty members at 16 emergency medicine residency programs. The checklist items were used to generate a composite score for each core competency of patient care, medical knowledge, interpersonal and communication skills, professionalism, and systems-based practice.

RESULTS: Univariate analysis demonstrated a high degree of agreement between evaluators in evaluating residents for both videos. Multivariate analysis found no differences in rating by faculty when examined by experience, academic title, site, or previous use of the SDOT.

CONCLUSIONS: Faculty from 16 emergency medicine residency programs had a high interrater agreement when using the SDOT to evaluate resident core competency performance. This study did not test the validity of the tool. This data analysis is mainly descriptive, and scripted video scenarios may not approximate direct observation in the emergency department.

Society for Academic Emergency Medicine Task Force on Physician-Patient Communication. Knopp R, Rosenzweig S, Bernstein E, & Totten V. Physician-patient communication in the emergency department, part 1. *Academic Emergency Medicine* 3(11): 1065-9, 1996.

Objectives of the Task Force: to develop physician awareness of the factors that affect physician-patient communication in the ED; to describe an approach and practical methods for improving physician-patient communication in the ED; and to influence the training of medical students and residents regarding the importance of physician-patient communication.

Potential impediments to effective communication in the ED are listed. These include: absence of a preexisting relationship with the patient; environmental factors (time, noise, lack of privacy, interruptions); stressors on the patient (pain, fear, anxiety); stressors on the emergency physician (high-impact decisions, stimulus overload, biorhythm disturbance); disproportionate number of patients with unhealthy lifestyles; disproportionate number of patients with diminished rights, varying patient expectations, confidentiality and reporting issues, disproportionate number of patients with complex social problems.

Opportunities afforded by the "team approach" in the ED are stressed.

Society for Academic Emergency Medicine Task Force on Physician-Patient Communication. Rosenzweig S, Knopp R, Freas G, Vicellio P, & Totten V. Physician-patient communication in the emergency department, Part 3: Clinical and educational issues. SAEM Task on Physician-Patient Communication. *Academic Emergency Medicine* 4(1): 72-7, 1997.

Society for Academic Emergency Medicine Task Force on Physician-Patient Communication. Totten VY, Knopp R, Helpert K, Hauswald M, Vicellio P, Brennan J, Rosenzweig S, & Jesionek P. Physician-patient communication in the emergency department. Part 2: Communication strategies for specific situations. *Academic Emergency Medicine* 3(12): 1146-53, 1996.

Spencer R, Coiera E, & Logan P. Variation in communication loads on clinical staff in the emergency department. *Annals of Emergency Medicine*. 44(3):268-273, September 2004.

STUDY OBJECTIVE: We determine whether there are differences in role-related communication patterns in the emergency department (ED).

METHODS: This was an observational study of a metropolitan ED. Four medical officers and 4 nurses were observed for 19 hours and 52 minutes. Communication load was measured by proportion of observed time in communication, proportion of concurrent communication events, and proportion of interruptions.

RESULTS: Eight hundred thirty-one communication events were identified, an average of 42 events per person per hour. Eighty-nine percent of clinicians' time was spent in communication. Synchronous communication channels, involving face-to-face or telephone conversations, were used in 84% of events. One third of communication events were classified as interruptions, averaging 15 interruptions per person per hour. Senior medical and nursing staff experienced higher rates of interruption than junior medical staff and registered nurses with an allocated patient load.

CONCLUSION: There was considerable variation in communication loads on clinical staff occupying different roles in the ED. Medical registrars had a high proportion of interruptions and spent the most time dealing with interruptions. These new data suggest some clinical roles may be at higher risk of communication overload than those of the general clinical population.

Stuart PJ, Parker S, & Rogers M. Giving a voice to the community: A qualitative study of consumer expectations for the emergency department. *Emergency Medicine*. 15(4):369-375, August 2003.

OBJECTIVE: To identify consumer expectations with respect to the ED.

METHODS: Semi-structured focus groups comprising representatives from a wide range of community groups. Data was analysed using a qualitative analytical approach.

RESULTS: The major themes of the groups were communication, triage, waiting area, cultural issues and carers. Consumers expressed the need to be informed about how the ED functions, particularly with regard to the triage process, patient assessment and admissions procedure. Privacy at the triage desk, comfort and safety of the waiting area, provision of facilities for children, cultural awareness of staff, access interpreter services and recognition of the needs of carers were identified as key issues.

CONCLUSION: The recognition of consumer needs provides the opportunity for the ED to develop strategies to match patient needs to service delivery.

Spiro KA, Harrison MB, Van Den Kerkhof EG, & Lougheed MD. Patient education in the emergency department: A systematic review of interventions and outcomes. *Advanced Emergency Nursing Journal*. 30(1):34-49, Jan./March 2008.

Patient education is a key component for the management of many acute and chronic conditions. Presentation to the emergency department (ED) may offer an opportunity for patient education. The purpose of this review was to explore and analyze the type of interventions and outcomes used in this setting and to determine whether there is emerging evidence of effectiveness of these interventions. This systematic review was guided by an explicit search strategy, retrieval procedures, and appraisal process. An initial search was done using the key words "emergency" and "patient education." Data sources included articles published between 1966 and 2005. Synthesis tables were created using Weston and Cranton's adaptation of Bloom's Taxonomy of Learning Domains as a framework. Nineteen studies met the inclusion criteria and comprised the final set for this review. Interventions used lecture, discussion, demonstration, and practice and instructional tools to relay information. Outcome measures included those from cognitive, affective, and psychomotor learning domains. In 10 randomized controlled trials, 6 studies reported being able to meet their learning domain outcomes using a variety of teaching methods. Educational interventions in the ED are both possible and feasible as examined in the studies in this review.

Takayesu JK, & Hutson HR. Communicating life-threatening diagnoses to patients in the emergency department. *Annals of Emergency Medicine*. 43(6):749-755, June 2004.

Disclosing a new, life-threatening diagnosis to a patient is difficult for the physician, the patient, and the family. The disclosure provokes a wide range of reactions from both the patient and family, to which the emergency physician must respond. This interaction is further complicated by the limited time the emergency physician can spend with the patient, the strained resources of a busy emergency department (ED), and, oftentimes, the inability to make a definitive diagnosis based on the ED workup and evaluation. We present a case seen recently in the ED in which a new, life-threatening illness requires disclosure. We offer guidelines for the emergency physician that emphasize patient- and family-centered disclosure of the worrisome diagnostic findings. Additionally, we discuss the essential roles of other allied health professionals in addressing the patient's nonmedical concerns (eg, health insurance, social issues) and in creating a smooth transition for the patient from the ED to further inpatient or outpatient care.

Taylor C, & Benger JR. Patient satisfaction in emergency medicine. *Emergency Medicine Journal*. 21(5):528-532, Sept. 2004.

A systematic review was undertaken to identify published evidence relating to patient satisfaction in emergency medicine. Reviewed papers were divided into those that identified the factors influencing overall satisfaction in emergency department patients, and those in which a specific intervention was evaluated. Patient age and race influenced satisfaction in some, but not all, studies. Triage category was strongly correlated with satisfaction, but this also relates to waiting time. The three most frequently identified service factors were: interpersonal skills/staff attitudes; provision of information/explanation; perceived waiting times. Seven controlled intervention studies were found. These suggested that increased information on ED arrival, and training courses designed to improve staff attitudes and communication, are capable of improving patient satisfaction. None of the intervention studies looked specifically at the effect of reducing the perceived waiting time. Key interventions to improve patient satisfaction will be those that develop the interpersonal and attitudinal skills of staff, increase the information provided, and reduce the perceived waiting time. Future research should use a mixture of quantitative and qualitative methods to evaluate specific interventions.

Taylor D, & Cameron PA. Discharge instructions for emergency department patients: What should we provide? *Journal of Accident & Emergency Medicine*, 17:86-90, 2000.

Effective communication between the physician and patient is required for optimum post-emergency department management. Written emergency department discharge instructions, when used to complement verbal instructions, have been shown to improve communication and patient management. This review examines the purpose, advantages, and disadvantages of three commonly used types of discharge instruction. The desirable features of discharge instructions are described. It is recommended that structured, pre-formatted instruction sheets be provided to all patients discharged to home, that emergency departments establish uniform policies to promote best practice in communication, and that the use of discharge instructions be considered as an emergency department performance indicator.

Taylor D, Wolfe R, & Cameron P. Complaints from emergency department patients largely result from treatment and communication problems. *Emergency Medicine*. 14(1):43-49, March 2002.

OBJECTIVE: Emergency department patient complaints are often justified and may lead to apology, remedial action or compensation. The aim of the present study was to analyze emergency department patient complaints in order to identify procedures or practices that require change and to make recommendations for intervention strategies aimed at decreasing complaint rates.

METHODS: We undertook a retrospective analysis of patient complaints from 36 Victorian emergency departments during a 61 month period. Data were obtained from the Health Complaint Information Program (Health Services Commissioner).

RESULTS: In all, 2419 emergency department patients complained about a total of 3418 separate issues (15.4% of all issues from all hospital departments). Of these, 1157 complaints (47.8%) were received by telephone and 829 (34.3%) were received by letter; 1526 (63.1%) complaints were made by a person other than the patient. Highest complaint rates were received from patients who were female, born in non-English-speaking countries and very young or very old. One thousand one hundred and forty-one issues (33.4%) related to patient treatment, including inadequate treatment (329 issues) and inadequate diagnosis (249 issues); 1079 (31.6%) issues related to communication, including poor staff attitude, discourtesy and rudeness (444 issues); 407 (11.9%) issues related to delay in treatment. Overall, 2516 issues (73.6%) were resolved satisfactorily, usually by explanation or apology. Only 59 issues (1.7%) resulted in a procedure or policy change. Remedial action was taken in 109 issues (3.2%) and compensation was paid to eight patients.

CONCLUSIONS: Communication remains a significant factor in emergency department patient dissatisfaction. While patient complaints have resulted in major changes to policy and procedure, research and intervention strategies into communication problems are indicated. In the short term, focused staff training is recommended.

Taylor D, Kennedy M, Virtue E, & McDonald G. A multifaceted intervention improves patient satisfaction and perceptions of emergency department care. *International Journal for Quality in Health Care*. 18(3):238-245, June 2006.

OBJECTIVES: We aimed to evaluate the effectiveness of a multifaceted intervention, targeting staff-patient communication, in improving emergency department patient satisfaction.

METHODS: We undertook a pre- and post-intervention study in a university-affiliated emergency department, over a 12-month period. The intervention included communication workshops, a patient education film, and a patient liaison nurse. At the patient level, the patient liaison nurse ensured optimal staff-patient community communication and played a role in staff communication education. The intervention was evaluated using patient surveys (containing general and communication-specific satisfaction items scored out of 100), complaint rates, and patient liaison nurse activity data.

Results: A total of 321 and 545 patients returned questionnaires in the pre- and post-intervention periods, respectively. Significant improvements were observed in patients' perceptions of being 'informed about delays' [score difference, 5.3; 95% confidence interval (CI), 0.6-10.0], that 'staff cared about them as a person' (difference, 4.4; 95% CI, 0.7-8.1), the overall emergency department facility assessment (difference, 3.9; 95% CI, 0.4-7.5) and overall emergency department care (difference, 3.8; 95% CI, 0.3-7.3). Non-significant improvements were seen in all other satisfaction items. In the post-intervention period, there was a 22.5% (95% CI, 14.6-32.8) decrease in the number of complaints received and a decrease in the complaint rate of 0.7 (95% CI, -0.3 to 1.6) complaints per 1000 patients. The patient liaison nurse activities included orientation of the patient including (i) explanation of tests, procedures, and delays; (ii) communication with a range of hospital staff; and (iii) general comfort measures including analgesia quality control.

CONCLUSION: Significant improvements in a variety of patient satisfaction measures were achieved with an intervention comprising staff communication workshops, a patient education film, and a patient liaison nurse.

Teach SJ, Crain EF, Quint DM, Hylan ML, & Joseph JG. Improved asthma outcomes in a high-morbidity pediatric population: Results of an emergency department-based randomized clinical trial. *Archives of Pediatrics & Adolescent Medicine*. 160(5):535-541, May 2006.

OBJECTIVE: To determine if an emergency department-based asthma follow-up clinic could improve outcomes within a high-morbidity pediatric population.

DESIGN: Prospective, randomized clinical trial with 6 months of follow-up.

Setting: Emergency department of an urban pediatric medical center.

PARTICIPANTS: Convenience sample of 488 patients aged 12 months to 17 years, inclusive, with prior physician-diagnosed asthma and 1 or more other unscheduled visits in the previous 6 months and/or 1 or more hospitalizations in the prior 12 months.

INTERVENTION: Single follow-up clinic visit focusing on 3 domains: asthma self-monitoring and management, environmental modification and trigger control, and linkages and referrals to ongoing care.

Main Outcome Measures: The primary outcome measure was unscheduled visits for acute asthma care. Secondary outcomes included compliance with a medical plan and asthma quality of life. Analysis was by intention to treat with adjustment for baseline differences.

RESULTS: Of those randomized to the clinic visit, 172 (70.5%) of 244 attended. The intervention group had significantly fewer mean unscheduled visits for asthma care during follow-up (1.39 vs 2.34; relative risk [RR] = 0.60 [95% confidence interval (CI), 0.46-0.77]). At 6 months, significantly more patients in the intervention group reported use of inhaled corticosteroids in the prior 2 days (49.3% vs 26.5%; RR = 2.03 [95% CI, 1.57-2.62]), no limitation in daytime quality of life (43.8% vs 34.4%; RR = 1.36 [95% CI, 1.06-1.73]), and no functional limitations in quality of life (49.8% vs 40.8%; RR = 1.33 [95% CI, 1.08-1.63]).

CONCLUSION: Attendance in the follow-up clinic was high. The intervention decreased subsequent unscheduled health care use while improving compliance and quality of life.

Thrasher C, & Purc-Stephenson R. Patient satisfaction with nurse practitioner care in emergency departments in Canada. *Journal of the American Academy of Nurse Practitioners*. 20(5):231-237, May 2008.

PURPOSE: To measure patient satisfaction with care delivered by nurse practitioners (NPs) in emergency departments (EDs) in Canada using a psychometrically valid survey.

DATA SOURCES: All patients who received care from an NP in six participating EDs in Ontario province over a 1-week period were asked to complete a self-administered patient satisfaction survey designed specifically to assess satisfaction with NP care in EDs.

CONCLUSIONS: One hundred and thirteen patients completed the survey. Principal components analysis of the survey revealed three factors or subscales: Attentiveness, Comprehensive care, and Role clarity. Scores on the three subscales indicated that patients were satisfied with Attentiveness (M= 3.72, SD = 0.38) and Comprehensive care (M= 3.52, SD = 0.49) and had a moderate understanding of Role clarity (M= 2.99, SD = 0.66). Participants with higher income levels reported higher levels of satisfaction with the attentiveness they received, whereas patients with previous experience with an NP reported higher levels of satisfaction with the comprehensive care they received. There was no appreciable increase in patient satisfaction with the NP based on age, gender, education, or health status.

Implications for practice: These findings indicate that attentiveness, comprehensive care, and role clarity are reflected by the NP in emergency healthcare settings as indicated by the patient's responses to the survey. This study supports that meeting expectations is a critical component of patient satisfaction.

Tran TP, Schutte WP, Muelleman RL, & Wadman, MC. Provision of clinically based information improves patients' perceived length of stay and satisfaction with ED. *American Journal of Emergency Medicine*. 20(6):506-509, October 2002.

We conducted a focused, prospective, randomized study to evaluate whether periodic personal provision of clinically based information to patients during an Emergency Department (ED) visit improves patients' perceptions of physician's excellence and efficiency of patient care. Six hundred nineteen consecutive adult patients or proxy informants, who were evaluated in the ED and subsequently discharged, were randomized into the standard of care (n = 307) and intervention group (n = 312). Under supervision by ED attending physicians, a single research assistant periodically provided patients with process and medical information at 15-minute intervals, starting at arrival and continuing through until discharged from the ED. At discharge, patients were handed a previously validated questionnaire to fill out and drop off at the ED exit. Outcome measures included actual and patients' estimate of the wait time (WT) and length of stay (LOS), ratings of registration personnel, and ratings of bedside and technical skills of nurses and Emergency Physicians (EPs), by using a 5-point Likert scale (5 = excellent, 4 = very good, 3 = good, 2 = fair, 1 = poor). There were no statistically significant differences in age, sex, insurance data, intensity of service, actual WT, actual LOS, and patients' perceived WT to see a physician between the 2 groups. The perceived LOS was, however, significantly shorter (92.6 vs. 105.5 min, P = .027) and the proportion of patients who rated the Emergency Staff Physician as "excellent" or "very good" was significantly higher in the intervention group (Bedside: 87.1% vs. 80.5%, P = .033; Technical skill: 86.8% vs. 80.1%, P = .032). Patients' perception of nursing skills were, however, statistically similar in the 2 groups (Bedside: 83.1% vs. 83.0%, P = .942; Technical skill: 84.5% vs. 82.7%, P = .613). Given the sample size and observed proportions, the [chi]² analysis of perception of nursing skill had a power of 4.8% (registered nurse [RN] bedside) and 7.5% (RN technical skill). Periodic personal interaction and provision of clinically based information in the ED is thought to improve patients' perceived LOS, efficiency, and clinical skills of EP after an ED visit.

University of British Columbia (UBC) Health Services and Policy Research, Watson DE, Peterson S, Black C. In pursuit of quality: Opportunities to improve patient experiences in British Columbian emergency departments, January 2009. Accessed online August 26, 2009 at <http://www.chspr.ubc.ca/research/patterns/emerg>.

In order to identify factors that drive positive or negative patient ratings of the overall quality of care in emergency departments, we used results of a province-wide survey completed by more than 16,800 patients who visited one of 110 facilities in BC in 2007 findings contain the following important lessons for ensuring that most patients in BC continue to report positive experiences and fewer patients report negative experiences: the factors that underlie patient ratings of both positive and negative reports of the overall quality of care in emergency departments are remarkably similar; the degree to which staff are considered to be courteous is the most important factor influencing patient ratings of quality; when health care professionals do well on factors that underlie these ratings, then patients offer high ratings of overall quality of care; and when health care professionals do poorly in those areas, patients are very likely to offer negative ratings of overall quality of the care they receive in emergency. Teamwork, comprehensive services, wait times to see a doctor, views on the reasonableness of that wait and availability of nurses matter also but not as much as the courteousness of staff .

Waisman Y, Siegal N, Siegal G, Amir L, Cohen H, & Mimouni M. Role of diagnosis-specific information sheets in parents' understanding of emergency department discharge instructions. *European Journal of Emergency Medicine*. 12(4):159-162, August 2005.

OBJECTIVES: To investigate the contribution of diagnosis-specific information sheets at discharge from the emergency department on parental understanding of the discharge instructions.

METHODS: The study group consisted of a convenience sample of parents of children discharged home from the emergency department of an urban tertiary care pediatric facility (n=95). At discharge by the physician, all were given a disease-specific information sheet to accompany the physician's discharge instructions. Thereafter, the parents were asked to complete the same 13-item questionnaire used in our previous study, covering demographics, level of anxiety, and quality of physician's explanation, in addition to a description, in their own words, of their child's diagnosis and treatment instruction and an indication of their preferred auxiliary method of delivery of information. The findings were compared with the study group in the first phase study (n=287) who did not receive the disease-specific information sheet. The BMDP statistical package was used for the analysis.

RESULTS: No statistically significant differences between the two groups in age, sex, and education, level of anxiety before or after the emergency department visit, or time of day were observed. Full understanding of the diagnosis was noted in 73% of the parents who received the information sheet and 72% of the parents in our previous study who did not. Corresponding rates of understanding of the treatment instructions were 92% and 82%. On statistical analysis, the distribution of the diagnosis-specific information sheet significantly improved parental understanding of the treatment instructions (P=0.025), but not of the diagnosis (P=0.54).

CONCLUSIONS: Although overall parental understanding of emergency department discharge instructions is good, understanding of the treatment instructions can be further improved with the use of diagnosis-specific information sheets.

Wiman E, Wikblad K, & Idvall E. Trauma patients' encounters with the team in the emergency department--A qualitative study. *International Journal of Nursing Studies*, 44(5) 714-722, July 2007.

BACKGROUND: Encounters in emergency departments have been described from different perspective and with different research approaches. On reviewing the literature, along with medical skills, interpersonal skills such as the ability to create a relationship with the patient was considered significant. Patients exposed to high-energy violence arrive at the emergency department in a vulnerable condition. Apart from their physical condition, they might be in shock and frightened by the experiences of the injury. The team at the emergency department is responsible for a complex situation and has to quickly establish rapport, gather information, assess the physical condition, and design a treatment plan.

AIM: The aim of this study was to explore trauma patients' conceptions of the encounter with the trauma team.

DESIGN AND METHOD: A qualitative inductive design was used and data were collected by semi-structured interviews. The interviews were transcribed verbatim and analysed according to contextual analysis. Participants: Twenty-three trauma patients with minor injuries, 17 from a university hospital and six from a county hospital with minor injuries, were included in the study.

FINDINGS: The main findings were three main categories, labelled modes of being with the patients: the instrumental, the attentive and the uncommitted mode. All encounters contained the instrumental mode and mostly there were a combination of instrumental mode and attentive mode. The patients were satisfied with these modes, which created emotions of confidence, comfort and satisfaction. The uncommitted mode occurred in some encounters together and generated emotions of abandonment, dissatisfaction.

CONCLUSION: The main conclusion is that a high-quality encounter in trauma care is likely to be received from caregivers who can shift their mode of being with the patient between the instrumental and the attentive mode as the patient/situation demands. That is, flexibility between the physical and psycho-social care.

Wiman E, & Wikblad K. Caring and uncaring encounters in nursing in an emergency department. *Journal of Clinical Nursing*. 13(4):422-429, May 2004.

BACKGROUND: Caring is a core characteristic of nursing. Nurses' caring behaviour has been explored in several studies. When caring for trauma patients, the most important caring behaviour must be the procedures associated with lifesaving. However, it is important not to forget the patient's psychological needs.

AIM: The aim of this study was to highlight encounters between injured patients and nurses in the trauma team and to explore whether the theory of caring and uncaring encounters in nursing and health care is applicable in emergency care.

Data collection and analysis: Data were collected by videotaping caring episodes between slightly injured patients and nurses in the trauma team. Five episodes involving 10 nurses were studied. The analysis was carried out in four steps. First the videotapes were studied several times and then transcribed into narratives, which were reduced into courses of events. These were subsequently classified according to aspects of caring and uncaring.

RESULTS: The nurses' verbal and non-verbal communication was poor, and they adopted a wait-and-see policy. A new uncaring aspect, instrumental behaviour, emerged from this poor communication. One of the caring aspects, being dedicated and having courage to be appropriately involved, could not be identified. Most encounters included several aspects of caring and uncaring, but the uncaring aspects predominated. The dominance of uncaring aspects indicates a lack of affective caring behaviour.

CONCLUSION: The result showed that the theory is partly applicable in emergency care. A new aspect, instrumental behaviour emerged. The nurses' behaviour in the five episodes was labelled as uncaring. Authentic nurse-patient encounters are essential in nursing.

Relevance to clinical practice: The importance of meeting patients' psychological needs and nurses' affective caring behaviour should be emphasized in trauma care, trauma courses and nursing education. It is necessary to measure the caring behaviour of trauma nurses.

Wiman E, Wikblad Karin, & Idvall E. Trauma patients' encounters with the team in the emergency department--A qualitative study. *International Journal of Nursing Studies*. 44(5):714-722, July 2007.

BACKGROUND: Encounters in emergency departments have been described from different perspective and with different research approaches. On reviewing the literature, along with medical skills, interpersonal skills such as the ability to create a relationship with the patient was considered significant. Patients exposed to high-energy violence arrive at the emergency department in a vulnerable condition. Apart from their physical condition, they might be in shock and frightened by the experiences of the injury. The team at the emergency department is responsible for a complex situation and has to quickly establish rapport, gather information, assess the physical condition, and design a treatment plan.

AIM: The aim of this study was to explore trauma patients' conceptions of the encounter with the trauma team.

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PARTICIPANTS: Twenty-three trauma patients with minor injuries, 17 from a university hospital and six from a county hospital with minor injuries, were included in the study. Findings: The main findings were three main categories, labelled modes of being with the patients: the instrumental, the attentive and the uncommitted mode. All encounters contained the instrumental mode and mostly there were a combination of instrumental mode and attentive mode. The patients were satisfied with these modes, which created emotions of confidence, comfort and satisfaction. The uncommitted mode occurred in some encounters together and generated emotions of abandonment, dissatisfaction.

CONCLUSION: The main conclusion is that a high-quality encounter in trauma care is likely to be received from caregivers who can shift their mode of being with the patient between the instrumental and the attentive mode as the patient/situation demands. That is, flexibility between the physical and psycho-social care.

Wissow LS, Roter D, Bauman, L, Crain E, Karasmar, C, Weiss K et al. Patient-provider communication during the emergency department care of children with asthma. The National Cooperative Inner-City Asthma Study, National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD. *Medical Care* 36(10): 1439-50, October 1998.

OBJECTIVES: Poor children's reliance on emergency facilities is one factor implicated in the rise of morbidity attributed to asthma. Although studies have examined doctor-patient communication during routine pediatric visits, little data are available about communication during emergency care. This study sought to describe communication during emergency treatment of childhood asthma to learn if a "patient-centered" provider style was associated with increased parent satisfaction and increased parent and child participation.

METHODS: This cross-sectional, observational study examined 104 children aged 4 to 9 years and their guardian(s) attending emergency departments in seven cities. Quantitative analysis of provider-family dialogue was performed. Questionnaires measured satisfaction with care, provider informativeness, and partnership.

RESULTS: Providers' talk to children was largely supportive and directive; parents received most counseling and information. Children spoke little to providers (mean: 20 statements per visit versus 156 by parents). Providers made few statements about psychosocial aspects of asthma care (mean: three per visit). Providers' patient-centered style with parents was

associated with more talk from parents and higher ratings for informativeness and partnership. Patient-centered style with children was associated with five times the amount of talk from children and with higher parent ratings for "good care," but not for informativeness or partnership.

CONCLUSIONS: Communication during emergency asthma care was overwhelmingly biomedical. Children took little part in discussions. A patient-centered style correlated with increased parent and child participation, but required directing conversation toward both parents and children.

Woloshynowych M, Davis R, Brown R, & Vincent C. Communication patterns in a UK emergency department. *Annals of Emergency Medicine*, 50(4):407-413, October 2007.

STUDY OBJECTIVE: Good communication is important in patient care and plays an essential part of teamwork and patient safety. Communication in the emergency department (ED) can be chaotic, with the potential for error resulting from communication overload and problems of communication. The nurse in charge of the ED plays a crucial role in maintaining communication flow. The aims of this study are to identify the features of the communication load on the nurse in charge of the ED.

METHODS: This was an observational, nonexperimental study, building on the methods of observation and analysis developed by Coiera. It was carried out in an inner-city hospital ED in London. The nurse in charge of the ED was observed. The following factors were studied: the level of communication, interruptions, and simultaneous events; the channel and purpose of communication; interaction types; unresolved communications and annoying aspects of the observed periods; and the effect of weekday, staffing, and patient levels on the level of communication.

RESULTS: Eleven nurses were observed during 18 observation periods during a total of 20 hours. Analysis revealed that there were 2,019 communication events in 20 hours and that 1,183 (59%) were initiated by the nurse in charge. Two hundred eighty-six (14%) simultaneous events/tasks were identified by the observer. One thousand five hundred twenty-eight (76%) communications involving the nurse in charge were face to face, 144 (7%) were by telephone, 107 (5%) concerned the use of the computer, and 104 (5%) concerned the use of the whiteboard. The largest purpose of communication events was related to patient management (48%). There was a slight relationship between junior medical staff and the level of communication and a moderate relationship between communication load and the number of patients in the ED. In addition, a greater number of nurses on duty were associated with fewer communication events with the nurse in charge.

CONCLUSION: These findings are an important measure of communication load, which can disrupt memory and lead to mistakes. Improving communication between health care staff by reducing the levels of interruptions and minimizing the volume of irrelevant or unnecessary information exchange could therefore have important implications for patient safety.

Zun L, & Downey L. Patient comprehension and satisfaction correlation with the understanding of reason for admittance. *Annals of Emergency Medicine*. 51(4):552, April 2008.

STUDY OBJECTIVES: To determine if patient satisfaction correlates to the patient's comprehension of admittance reasoning and does a better comprehension of admittance reasoning lead to greater overall satisfaction in the emergency department. We know from numerous studies that a patient's comprehension of discharge instructions is limited with as few as 30% having an accurate understanding of them. No literature has been found examining the role of patient understanding as to why they are being admitted and the role (if any) it plays in patient satisfaction.

METHODS: A total of 100 patients were given the survey which included questions of mental status, understanding of reasons for admitting, tests, knowledge of illness, and satisfaction scales to determine if a correlation exists. Patients were from an urban, level 1 adult and pediatric trauma center. A convenience sample of patients who were interviewed by research fellows in patient care area. Inclusion Criteria: Patient 18 years or older, able to consent and were medically stable, who spoke English or Spanish. Those patients who were less than 18 years of age, not able to consent and who did not speak English and or Spanish were excluded from the study.

RESULTS: The majority at 92% were English speakers. Their age ranged from 40% 18-44, 28% 46-55 and 18% 55-64. The majority 52% had normal BMSE scores with 44% being mildly impaired and 4% severely. The overwhelming majority at 90% rated their care as good to excellent and 70% of them did understand why were being admitted. However, 30% did not understand the reasons they were to be admitted. Using an ANOVA test with significance of $\leq .05$ or less, there was a significant finding between being impaired BMSE correlation with past drug abuse ($p = .028$). There was no other significant difference between satisfaction, wait times, knowledge of admit, etiology.

CONCLUSIONS: The majority of patients understood why they were being admitted and the doctor's explanation of their reasons for being admitted. The overwhelming majority also rated their care as good to excellent. However, 30% of patients did not understand either factor. This illustrates a breakdown in communication of medical information from doctor to patients which could limit their capacity to give consent and to be an active partner in their care.

III. COMMUNICATION WITH FAMILIES

Agard M. Creating advocates for family presence during resuscitation. *MEDSURG Nursing*. 17(3):155-160, June 2008.

Research suggests that family presence at the bedside during resuscitation is beneficial for both family members and staff. Education of health care personnel will help them communicate effectively with and guide distraught family members during a code. Tools to implement a family presence protocol are provided.

Booth M, Woolrich L, & Kinsella J. Family witnessed resuscitation in UK emergency departments: A survey of practice. *European Journal of Anaesthesiology*. 21(9):725-728, September 2004.

BACKGROUND AND OBJECTIVES: The American Heart Association guidelines from 2000 recommend that family members be allowed to witness cardiopulmonary resuscitation. This is controversial and opponents fear litigation and family interference during family witnessed resuscitation (FWR). The extent of FWR in UK Emergency Departments is unknown.

METHODS: A telephone survey of a selection of UK Emergency Departments was performed asking about experience with FWR.

RESULTS: One-hundred-and-sixty-two UK Emergency Departments with an average attendance of 47 000 patients per year participated. FWR was allowed by 128 (79%) for an adult patient and 93% for a child. Of these, 50% invited relatives to witness and only 21% did not permit FWR. The perceived benefits were: accepting that all possible has been done (48%), accepting the death (48%) and help with grieving (38%). Two percent did not think FWR was of help. Few had encountered any problems or interference from the family. Never being asked was the commonest reason not allowing FWR followed by staff reluctance. Most respondents would wish to be present if their child (85%), spouse/partner (64%) or elderly relative (52%) was being resuscitated.

CONCLUSIONS: FWR is common in UK Emergency Departments. It is more common when children are being resuscitated than adults. Further research is needed to demonstrate whether it is of benefit to the patient or relatives and its applicability to other areas such as intensive care.

Boudreaux ED, Francis JL, & Loyacano T. Family presence during invasive procedures and resuscitations in the emergency department: A critical review and suggestions for future research. *Annals of Emergency Medicine*. 40(2):193-205, August 2002.

STUDY OBJECTIVE: We examine the literature relating to family presence in the emergency department, with a specific emphasis on parental experiences and presence during invasive procedures and family presence during cardiopulmonary resuscitation and resuscitation.

METHODS: An electronic search and examination of resulting references was conducted using the words, "family centered care," "parent participation," "parent presence," "family presence," and "emergency department," "accident and emergency department," "procedure," "invasive procedure," and "resuscitation." Articles related to out-of-hospital emergency medical services were excluded. Also, articles were included only if the manuscript was based on an empirical study and if the manuscript was published in a peer-reviewed journal.

RESULTS: Twenty articles, primarily composed of survey research, were included in this review. Research suggests that families want to be given the option and, when given the option, often choose to remain during invasive procedures and resuscitations. Those who remain generally report favorable experiences and feel it is beneficial to the patient and themselves. Providers, however, have mixed opinions regarding family presence. Nurses may have a more favorable view toward family presence during invasive procedures than physicians. Among physicians, it appears that greater age and experience may be associated with more favorable opinions of family presence. Randomized controlled trials are mixed regarding whether family presence actually helps the patient.

CONCLUSION: Despite what appear to be promising data regarding the benefits of family presence, this area of research is in the initial phases of development with many limitations that are discussed. Recommendations for future research are presented.

Cerel J, Currier GW, & Conwell Y. Consumer and family experiences in the emergency department following a suicide attempt. *Journal of Psychiatric Practice*. 12(6):341-7, November 2006.

OBJECTIVE: To understand the separate experiences of consumers (patients) and family members in the Emergency Department (ED) following a suicide attempt.

METHODS: Separate anonymous surveys were created for two groups: 1) consumers (n = 465) who had made a suicide attempt and been to the ED, and 2) others (referred to here as family members; n = 254) who had a close friend or relative treated in an ED due to suicidal behavior. Surveys were available on the National Alliance on Mental Illness (NAMI) website (www.nami.org) for 2 months.

RESULTS: Almost half of consumers were accompanied by a family member to the ED following their suicide attempt. Over half of consumers and family members felt that staff treated them with respect and addressed ethnic and cultural issues appropriately. However, fewer than 40% of consumers felt that staff listened to them, described the nature of treatments to

them, or took their injury seriously. Family members were more likely than consumers to feel heard or to receive information about treatment. More than half of consumers and almost a third of family members felt directly punished or stigmatized by staff. Consumers and family members also reported negative experiences involving a perception of unprofessional staff behavior, feeling the suicide attempt was not taken seriously, and long wait times.

CONCLUSIONS: Individuals who visited the NAMI website reported a range of negative experiences in EDs following visits for suicide attempts. The effects of these experiences on retention in care and subsequent self-injurious behavior are largely unexplored. A greater understanding of these effects may inform development of interventions to increase the satisfaction of consumers and their families and friends and improve outcomes that result from emergency care of suicidal patients and their families.

Cottle EM, & James JE. Role of the family support person during resuscitation. *Nursing Standard*. 23(9):43-47, Nov 5, 2008.

SUMMARY: This article discusses family witnessed resuscitation and describes the need for a healthcare professional to be available to support the family before and during this experience. Careful explanation and emotional support are required during the event and if cardiopulmonary resuscitation is unsuccessful, further explanation and support will be required. A family support person is usually a nurse but could also be a hospital chaplain or social worker. The chaplain's background and ability to interpret medical information, combined with the emotional and spiritual support he or she can offer, make the chaplain suitable for this role. However, for some patients and families a chaplain's involvement might not be appropriate. The authors suggest that further research and evidence-based guidance should be developed to maximise the benefits of a family support person's presence during witnessed resuscitation.

DiMeglio K, Padula C, Piatek C, Korber S, Barrett A, Ducharme M, Lucas S, Piermont N, Joyal E, DeNicola V, & Corry K. Group cohesion and nurse satisfaction: Examination of a team-building approach. *Journal of Nursing Administration*, 35(3), 110-120, March 2005.

OBJECTIVES: The purpose of this study was to determine the impact of a team-building intervention on group cohesion, nurse satisfaction, and turnover rates.

BACKGROUND: Creating an environment that supports and retains nurses represents a formidable challenge for nursing leaders. Research related to strategies that positively impact the culture in which nurses practice, thus potentially improving nurse satisfaction and reducing turnover, is critically needed.

METHODS: Registered nurses (RNs) employed on inpatient units in a 247-bed, private acute care Magnet teaching hospital participated in this quasi experimental preintervention and postintervention design. The RN-RN interaction subscale from the National Database of Nursing Quality Indicators Adapted Index of Work Satisfaction, the National Database of Nursing Quality Indicators Adapted Index of Job Enjoyment, the Group Cohesion Scale, and a facilitator-developed measure were completed preimplementation and postimplementation of unit-tailored intervention strategies, which took place over a 12-month period. Turnover rates were collected 6 month preintervention and postintervention. Results: Improvement in group cohesion, RN-RN interaction, job enjoyment, and turnover was demonstrated.

CONCLUSION: Targeted, unit-based strategies can be an effective means of reducing turnover rates and improving group cohesion and nurse satisfaction

Eppich W, Brannen M, & Hunt E. Team training: implications for emergency and critical care pediatrics. *Current opinion in pediatrics*, 20 (3):255-260, 2008.

PURPOSE OF REVIEW: The field of team training is quickly evolving and data are emerging to support the close relationship between effective teamwork and patient safety in medicine. This paper provides a review of the literature on team training with specific emphasis on the perspectives of emergency and critical care pediatricians.

RECENT FINDINGS: Errors in medicine are most frequently due to an interaction of human factors like poor teamwork and poor communication rather than individual mistakes. Critical care settings and those in which patients are at the extremes of age are particularly high-risk, making emergency and critical care pediatrics a special area of concern. Team training is one approach for reducing error and enhancing patient safety. Currently, there is no single standard for team training in medicine, but multiple disciplines, including anesthesiology, emergency medicine and neonatology, have adapted key principles from other high-reliability industries such as aviation into crisis resource management training.

SUMMARY: Team training holds promise to improve patient safety in pediatric emergency departments and critical care settings. We must carefully delineate the optimal instructional strategies to improve team behaviors and combine these with rigorous outcomes assessment to diagnose team problems and prescribe targeted solutions, and determine their long-term impact on patient safety.

Eppich WJ, & Arnold LD. Family member presence in the pediatric emergency department. *Current Opinion in Pediatrics*. 15(3):294-298, June 2003.

Traditionally, family members were excluded from viewing invasive procedures and cardiopulmonary resuscitation in the pediatric emergency department. The concept of family-centered care in the emergency department has now become more

widespread. Consequently, family member presence during routine invasive procedures such as venipuncture, intravenous cannulation, urethral catheterization, and lumbar puncture has become more accepted. Survey evidence indicates parents' overwhelming desire to be present for invasive procedures and cardiopulmonary resuscitation. Healthcare provider opinions about family witnessed resuscitation lack similar uniformity. Variations in approval of witnessed resuscitation are influenced by occupation, level of training and experience, and prior exposure to family member presence practices. Although several organizations formally support family presence policies, citing benefits for grieving relatives, critics point to a lack of rigor in a large body of the research cited to underpin these endorsements. We review the literature from the perspective of pediatric emergency physicians, offer suggestions for family member presence, and provide directions for future study.

Ersoy G, Yanturali S, Suner S, Karakus NE Aksay E, & Atilla R. Turkish patient relatives' attitudes towards family-witnessed resuscitation and affecting sociodemographic factors. *European Journal of Emergency Medicine*. 16(4): 188-193, Aug. 2009.

BACKGROUND: Witnessed resuscitation is the process of resuscitation in the presence of family members.

STUDY OBJECTIVE: Our goal was to determine the attitudes of relatives of the patients presenting to our emergency department regarding witnessed resuscitation and to elucidate the sociodemographic variables affecting their perspectives.

METHODS: Blood relatives and spouses of all adult patients presenting to our emergency department in Turkey between 7 January 2005 and 16 January 2005 were included in the study. Accompanying persons other than patients' relatives were excluded. Surveys were conducted using a structured face-to-face interview with the participants.

RESULTS: A total of 420 family members were surveyed. Most participants (66.4%) stated that they would like to be present during resuscitation. The most common reason for wanting to be present during cardiopulmonary resuscitation (CPR) was: 'providing support for the patient' and 'witnessing the intervention'. Male family members and family members of patients without health insurance were more likely to want to witness resuscitation. Although prior willingness to witness CPR did not affect the likelihood of wanting to witness CPR, those family members who had previously witnessed CPR ending in death had decreased likelihood of wanting to witness it again. The participants' age, level of education, marital status, presence of chronic illness, and the patients' presenting diagnosis did not significantly affect the rate of willingness to witness CPR.

CONCLUSION: Our data locally revealed that most of the participants in this survey would like to witness CPR conducted on their family members who presented to our emergency department.

Haig KM, Sutton S, & Whittington J. SBAR: A shared mental model for improving communication between clinicians. *Joint Commission Journal on Quality and Patient Safety*, 32 (9),167–175, 2006.

BACKGROUND: The importance of sharing a common mental model in communication prompted efforts to spread the use of the SBAR (Situation, Background, Assessment, and Recommendation) tool at OSF St. Joseph Medical Center, Bloomington, Illinois.

CASE STUDY: An elderly patient was on warfarin sodium (Coumadin) 2.5 mg daily. The nurse received a call from the lab regarding an elevated international normalized ratio (INR) but did not write down the results (she was providing care to another patient). On the basis of the previous lab cumulative summary, the physician increased the warfarin dose for the patient; a dangerously high INR resulted.

ACTIONS TAKEN: The medical center initiated a collaborative to implement the use of the SBAR communication tool.

Education was incorporated into team resource management training and general orientation. Tools included SBAR pocket cards for clinicians and laminated SBAR "cheat sheets" posted at each phone. SBAR became the communication methodology from leadership to the microsystem in all forms of reporting.

DISCUSSION: Staff adapted quickly to the use of SBAR, although hesitancy was noted in providing the "recommendation" to physicians. Medical staff were encouraged to listen for the SBAR components and encourage staff to share their recommendation if not initially provided.

Jurkovich GJ, Pierce B, Pananen L, & Rivara FP. Giving bad news: The family perspective. *Journal of Trauma* 48(5): 865-70, 2000.

BACKGROUND: Death from trauma frequently comes without forewarning. Relating the news of death to the family is often the responsibility of trauma surgeons. The purpose of this study was to investigate the key characteristics and methods of delivering bad news from the perspective of surviving family members.

METHODS: We designed and administered a survey tool to surviving family members of trauma patients dying in the emergency department or intensive care unit. The tool consisted of 14 elements that surviving family members graded in importance when receiving bad news (1, least; 6, most). Respondents also judged the attention given to these elements (good, fair, or poor) by the person giving the bad news of death.

RESULTS: Fifty-four family members of 48 patients who died completed the survey (44 intensive care unit deaths, 4 emergency room deaths). Deceased patients ranged in age from 12 to 91 years (mean, 53 years). Death occurred within 2 days of injury in 69% of the patients and within 1 week in 83%. The most important features of delivering bad news were judged to be attitude of the news-giver (ranked most important by 72%), clarity of the message (70%), privacy (65%), and knowledge/ ability to answer questions (57%). The attire of the news-giver ranked as least important (3%). Sympathy, time

for questions, and location of the conversation were ranked of intermediate importance. Touching was unwanted by 30% of the respondents, but encouraged or acceptable in 24%.

CONCLUSION: The attitude of the news-giver, combined with clarity of the message and the time, privacy, and knowledge to answer questions are the most important aspects of giving bad news. This information should be incorporated into resident training.

Kohn LT, Corrigan J, & Donaldson MS. To err is human: Building a safer health system. Washington, DC: National Academy Press. 1999.

This Institute of Medicine (IOM) Report highlights that 60–80% of medical errors are primarily a result of human errors such as ineffective communication and teamwork. The report specifically recommends that healthcare organizations implement interdisciplinary team training programs for critical care areas, including the emergency department, intensive care unit and operating room.

Kristensson J & Ekwall A. Psychometric properties of the consumer emergency care satisfaction scale: Tested on persons accompanying patients in emergency department. *Journal of Nursing Care Quality*. 23(3):277-282, July/September 2008.

The aim of this study was to investigate construct validity and internal consistency of a modified version of the Consumer Emergency Care Satisfaction Scale used on persons accompanying emergency department patients. The sample comprised 128 persons. The results showed satisfactory reliability, and an exploratory factor analysis revealed 3 factors: caring, teaching, and clinical competence. The modified version of this scale seems feasible and may be a useful tool for measuring satisfaction in persons accompanying patients in the emergency department.

Leonard M, Graham S, Bonacum D. The human factor: The critical importance of effective teamwork and communication in providing safe care. *Quality and Safety in Health Care*, 13(Supplement 1):i85–i90, 2004.

Effective communication and teamwork is essential for the delivery of high quality, safe patient care. Communication failures are an extremely common cause of inadvertent patient harm. The complexity of medical care, coupled with the inherent limitations of human performance, make it critically important that clinicians have standardised communication tools, create an environment in which individuals can speak up and express concerns, and share common "critical language" to alert team members to unsafe situations. All too frequently, effective communication is situation or personality dependent. Other high reliability domains, such as commercial aviation, have shown that the adoption of standardised tools and behaviours is a very effective strategy in enhancing teamwork and reducing risk. We describe our ongoing patient safety implementation using this approach within Kaiser Permanente, a non-profit American healthcare system providing care for 8.3 million patients. We describe specific clinical experience in the application of surgical briefings, properties of high reliability perinatal care, the value of critical event training and simulation, and benefits of a standardised communication process in the care of patients transferred from hospitals to skilled nursing facilities. Additionally, lessons learned as to effective techniques in achieving cultural change, evidence of improving the quality of the work environment, practice transfer strategies, critical success factors, and the evolving methods of demonstrating the benefit of such work are described.

Levetown M. Breaking bad news in the emergency department: When seconds count. *Topics in Emergency Medicine. Ethics in the Emergency Department*. 26(1):35-43, January/February/March 2004.

One of the most difficult tasks of an emergency care provider is to inform parents of their child's death. Only a rare physician, nurse, or first-responder training program teaches practitioners how to have this conversation. Yet, the impact of this conversation for parents is lifelong; they report that the interaction with health professionals at time of disclosure either creates long-term peace or haunts them for the rest of their days. Similarly, caregivers may be regretful or heartened by their experiences in meeting the needs of parents in extremis. This article provides recommendations for breaking bad news in the emergency department and training methods for providers confronting the sudden death of a child.

Li SP, Chan CW, & Lee DT. Helpfulness of nursing actions to suddenly bereaved family members in an accident and emergency setting in Hong Kong. *Journal of Advanced Nursing*. 40(2):170-80, October 2002.

BACKGROUND: The sudden death of a family member is always traumatic to the family. Nursing actions such as providing comfort measures and providing an opportunity to view the deceased were consistently perceived as helpful by the suddenly bereaved. Little is known about the perception of bereaved family members in Hong Kong concerning the care they received in accident and emergency (A & E) departments. This study serves to identify actions, which were perceived as helpful in A & E setting in Hong Kong.

AIM: To gain knowledge about what nursing actions bereaved family members in Hong Kong perceived as helpful.

METHOD: This study was exploratory and descriptive in nature, and used a quantitative approach. Data were collected through structured telephone interviews using a modified Tye's questionnaire.

RESULTS: Seventy-six bereaved subjects were recruited in an A & E department in Hong Kong. The subjects perceived written information, opportunity to view the deceased, and respecting individual customs and religious procedures as most helpful

and conversely, offering sedation, discouraging viewing of the body, and providing comfort measures as most unhelpful. No statistically significant differences among the overall mean of helpful nursing actions according to the subjects' age, gender, education level, family income and religions were found while using Mann-Whitney's U and Kruskal-Wallis' tests. Significant correlations between some actions and the respondents' age, family income and educational level were found.

CONCLUSION: Accident and emergency nurses have unique role in offering helpful actions to support suddenly bereaved family members.

Maxton F. Parental presence during resuscitation in the PICU: the parents' experience: Sharing and surviving the resuscitation: A phenomenological study. *Journal of Clinical Nursing*. 17(23):3168-3176, December 2008.

AIM AND OBJECTIVE: To provide in-depth understanding of the meaning for parents who were present or absent during a resuscitation attempt on their child in the PICU.

BACKGROUND: Family presence during resuscitation remains a topic of debate with both benefits and disadvantages identified, yet few studies have asked parents of children in PICU to describe their experiences of being present or absent during this resuscitation and what this means to their understanding and coping. Additionally, minimal research has investigated parental presence during a successful resuscitation.

DESIGN: A qualitative design was used based upon van Manen's interpretative phenomenological approach.

Methods: Fourteen parents of critically ill children from one paediatric intensive care unit in Australia, who had either survived or died following a resuscitation attempt were interviewed.

Results: Four main themes were identified: (1) being only for a child; (2) making sense of a living nightmare; (3) maintaining hope in the face of reality; (4) living in a relationship with staff.

CONCLUSIONS: The findings underpin the inherent need for parents to choose to be present during resuscitation to make sense of the situation. Memories of the resuscitation were not long-lasting and distress was for the potential death of a child, rather than the resuscitation scene. Parents who did not witness their child's resuscitation were more distressed than those who did. Having the opportunity to make the decision to stay or leave was important for parents. Support during the resuscitation was best provided by experienced clinical nurses.

Relevance to practice: Recognition of the parents' compelling need to stay will improve nurses' understanding of how witnessing this event may assist family coping and functioning. Ways in which parents may be better supported in making the decision to stay or leave during resuscitation are identified.

McDaniel S, Campbell TL, Seaburn DB. *Family-oriented primary care: A manual for medical providers*. Springer-Verlag, New York, 1990.

This classic and wonderful text provides a model for conceptualizing a family-oriented approach to medical care. Though the focus is on primary care, the book includes several sections that apply to addressing the needs of families in the emergency department and inpatient settings. See especially: Chapter 1 – Basic Premises of Family-Oriented Care: Utilizing the Family as a Resource; Chapter 21 – Acute Hospital Care: Letting the Family In; Chapter 12 – Looking Death in the Eye: Death, Grieving and Families; and Chapter 6 – Conducting a Family Conference: A Cornerstone for Family Oriented Care.

McGahey-Oakland PR, Lieder HS, Young A, Jefferson LS. Family experiences during resuscitation at a children's hospital emergency department. *Journal of Pediatric Health Care*. 21(4):217-225, July/August 2007.

INTRODUCTION: Family presence (FP) during resuscitation is a timely and controversial topic. Family members are becoming part of the resuscitation process. Study objectives included: (1) describe experiences of family members whose children underwent resuscitation in a children's hospital emergency department; (2) identify critical information about family experiences to improve circumstances for future families; and (3) assess mental and health functioning of family members.

METHODS: This descriptive, retrospective study involved a 1-hour audio-taped interview of 10 family members using the Parkland Family Presence During Resuscitation/Invasive Procedures Unabridged Family Survey (FS) and investigator-developed questions. Mental and health functioning were assessed using the Brief Symptom Inventory, the Short Form Health Survey version 2, and the Post Traumatic Stress Disorder Scale. Seven family members were present during resuscitation, and three were not present.

RESULTS: Five thematic categories were identified: (1) It's My Right to Be There; (2) Connection and Comfort Make a Difference; (3) Seeing is Believing; (4) Getting In; and (5) Information Giving. Family members voiced that it was their right to be present, indicating they had a special connection to the child. Seeing or not seeing the events of the resuscitation affected family members' ability to believe the outcome. Measures of mental and health functioning were similar to population norms.

DISCUSSION: Instituting guidelines that facilitate FP may provide mechanisms to ensure that the needs of patients, family members, and **health care** providers are met during a stressful event.

Moons P, & Norekval TM. European nursing organizations stand up for family presence during cardiopulmonary resuscitation: A joint position statement. *Progress in Cardiovascular Nursing*. 23(3):136-139, Summer 2008.

Empirical evidence suggests that family presence during cardiopulmonary resuscitation (CPR) has beneficial effects. Although many American professional organizations have endorsed the idea of family presence, there is less formal support in Europe. In addition, the attitude of nurses from Anglo-Saxon countries, such as United Kingdom and Ireland, is more positive toward family presence than the attitude of nurses of mainland Europe. In order to support existing guidelines and to stimulate health care organizations to develop a formal policy with respect to family witnessed CPR, 3 important European nursing organizations have recently developed a joint position statement.

Parkman, Henderson D, & Knapp JF. Report of the national consensus conference on family presence during pediatric cardiopulmonary resuscitation and procedures. *Journal of Emergency Nursing*. 32(1):23-29, February 2006.

Representatives from 18 national organizations were convened for a conference to develop recommendations regarding family presence (FP) during pediatric procedures and cardiopulmonary resuscitation. Before the conference, invitees were given a questionnaire and provided with current literature regarding FP. A modified Delphi process was used to develop consensus, including use of multiple questionnaires and breakouts for discussion of specific issues. Participants were encouraged to develop consensus recommendations based on the literature and discussions. Changes in attitude were tracked with repeat questionnaires. Results of the conference were circulated to participants for review and revision. Consensus recommendations include (1) consider FP as an option for families during pediatric procedures and cardiopulmonary resuscitation, (2) offer FP as an option after assessing factors that could adversely affect the interaction, (3) if family is not offered the option for FP, document the reasons why, (4) always consider the safety of the health care team, (5) develop in-hospital transport and transfer policies and procedures for FP, such as family member definition, preparation of the family, handling disagreements, and providing support for the staff, (6) obtain legal review of policies, (7) include education in FP in all core curricula and orientation for health care providers, (8) promote research into best methods for education; effects of FP on patients, family, and staff; best practices for FP; and legal issues regarding FP, among others. These recommendations were approved in concept by the American Academy of Pediatrics and the Ambulatory Pediatrics Association.

Piira T, Sugiura T, Champion GD, Donnelly N, & Cole AS. The role of parental presence in the context of children's medical procedures: a systematic review. *Child: Care, Health & Development*. 31(2):233-243, March 2005.

BACKGROUND: There are conflicting views and practices regarding whether or not parents should be present at the time of their child's medical procedure. A systematic review was conducted to assess the effects of parental presence in the paediatric treatment room on child, parent and health professional outcomes and to synthesize this body of literature.

METHODS: Based on a comprehensive literature search, studies investigating parental presence in the paediatric treatment room were included in the review if they had a concurrent control group (i.e. a parent-absent group).

RESULTS: A total of 28 studies met inclusion criteria, which included 1256 children with a parent present and 1025 children without a parent present. There were mixed findings regarding the effect of parental presence on measures of child distress and affect, however, studies of lower levels of evidence were more likely to report significant results. Parents who were present during their child's medical intervention were either better off or no different from parents who were absent with regard to their levels of distress and satisfaction. There was no evidence of increased technical complications nor elevated staff anxiety for health professionals attending to children with a parent present as compared to attending to children without their parents.

DISCUSSION: Although parental presence may not have a clear, direct influence on child distress and behavioural outcomes, there are potential advantages for parents. It seems appropriate that clinicians provide parents with the opportunity to be present during their child's painful procedure.

Ryan G, & Treston G. Do family members interfere in the delivery of care when present during invasive paediatric procedures in the emergency department? *Emergency Medicine Australasia*. 19(3):234-240, June 2007.

OBJECTIVE: To determine whether family members interfere with patient care when present during invasive procedures performed on their children in the ED.

METHODS: A prospective observational study of consecutive cases of procedural sedation of children aged between 12 months and 16 years was conducted between March 2002 and March 2006 in the ED of a secondary-level regional hospital in south-east Queensland. Procedures performed included laceration repair, fracture reduction, foreign body removal and abscess incision and drainage. Parents/primary caregivers were encouraged to stay with their child. A stepwise explanation of the procedure and sedation to be used was undertaken, informed consent obtained and telephone follow up attempted 5-14 days post procedure.

RESULTS: Six hundred and fifty-two patient encounters with parents or primary caregivers present for the procedure were included for a total of 656 procedures: 234 laceration repairs, 250 fracture reductions, 85 foreign body removals, 33 abscess incision and drainages, 14 dislocation reductions and 40 other procedures. Telephone follow up was successful in 65% (424)

of cases. The mean age was 6.5 years. Family member interference occurred in one case (0.15%, 95% confidence interval 0-0.73%). In 17 cases (2.68%, 95% confidence interval 2.1-5.9%) family members present expressed concerns about the procedure during the telephone follow up but had not interfered at the time of the procedure. There were no significant differences between the concerned parents at follow up and the study group across key patient variables such as child's age (P= 0.369), weight (P= 0.379), respiratory rate (P= 0.477), sex (P= 0.308), procedure indication (P= 0.308) and airway manoeuvres (P= 0.153).

CONCLUSION: When family members are encouraged to stay for invasive procedures performed on their child, and careful explanation of the procedure, sedation, possible complications, choice of medication for sedation and possible side-effects is undertaken, family member interference is extremely rare.

Salas E, Rosen MA, Burke CS, et al. Markers for enhancing team cognition in complex environments: The power of team performance diagnosis. *Aviation, Space and Environmental Medicine*, 78 (Suppl 5):B77-B85, 2007.

A theoretical discussion of team cognition and how simulation-based training can be used to diagnose team performance. The authors also propose markers of team cognition, which are described in detail.

Tolle SW, Bascom PB, Hickam DH, & Benson JA. Communication between physicians and surviving spouses following patient deaths. *Journal of General Internal Medicine*, 1(5): 309-14, 1986.

The authors evaluated the perceptions and adjustments of surviving spouses following patient deaths. Of 128 married patients dying in a university hospital in 1983, the surviving spouses of 105 (82%) were personally interviewed a year after the death. The physicians' perspectives were recorded through chart review. Half of all spouses had had no subsequent contact with the physicians who had cared for the deceased, and 55% of spouses still had unanswered questions regarding the death a year later. Survivors of unexpected deaths were found to be at high risk for poor subsequent adjustment. Spouses with poorer adjustments consulted their own physicians more frequently, and used more alcohol and tranquilizers. The results identify areas where improvement is needed in communication with surviving spouses after patients' deaths.

Walker W. Accident and emergency staff opinion on the effects of family presence during adult resuscitation: Critical literature review. *Journal of Advanced Nursing*. 61(4):348-362, February 2008.

AIM: This paper is a report of a critical literature review to identify the positive and negative effects of family presence during adult resuscitation, as perceived by accident and emergency healthcare staff based in primary (out-of-hospital) and secondary (in-hospital) environments of care.

BACKGROUND: The controversial practice of family presence during resuscitation of adults has stimulated debate over the past two decades, giving rise to a growing body of literature and the development of clinical guidelines for practice.

METHODS: A search was carried out for the period 1987-2007 using the Science Direct, CINAHL, Medline, EMBASE, psychINFO and BNI databases and the search terms resuscitation, witnessed resuscitation, family presence, relatives' presence, attitudes and opinions and accident and emergency.

RESULTS: Eighteen studies were included in the critical review, primarily comprising retrospective survey research. The majority of studies were descriptive in design. A standardized approach to the appraisal process was achieved through the utilization of guidelines for critiquing self-reports. The findings revealed that accident and emergency healthcare staff perceive both positive and negative effects as a consequence of family presence during adult resuscitation and their opinions suggest that there are more risks than benefit.

CONCLUSION: Further research is essential if family presence during resuscitation of adults is to be better defined and understood. Qualitative methods of enquiry are recommended as a way of gaining a deeper insight into and understanding of this practice.

Walters DT, & Tupin JP. Family grief in the emergency department. *Emergency Medicine Clinics of North America* 9(1): 189-206, 1991.

Emergency physicians frequently face death, yet many are unprepared to deal with the family survivors of a patient who has died unexpectedly. Without the benefit of establishing prior rapport with the family, the emergency physician must anticipate the family's grief response so that he or she can intervene to avoid an unnecessarily prolonged or morbid grief reaction. Factors predisposing to a pathologic grief response in the death of a spouse or of an infant or child must be recognized, and the physician's power to assuage survivor guilt should be used. Certain key actions in the process of notifying survivors, viewing the body, concluding the emergency department visit, and following up after the patient's death help facilitate survivor grief in the least traumatic way possible. Emergency Departments can improve their dealing with death by instituting a team approach using doctors, nurses, social workers, and clergy to better support family members in their emergency department experience and to provide a link with community service organizations helpful to the family after they leave the hospital.

Williams AG, O'Brien DL; Laughton KJ, & Jelinek GA. Improving services to bereaved relatives in the emergency department: Making healthcare more human. *Medical Journal of Australia*, 173(9): 480-3, 2000.

Death and bereavement are often poorly dealt with in emergency departments. Guidelines exist for optimal care of bereaved relatives. Establishing a limited bereavement program in a busy emergency department is quite feasible. Bereaved relatives appreciate a more "human" approach from hospital staff. Ultimately hospital staff also benefit from confronting issues surrounding death in the emergency department.

IV. COMMUNICATION WITH TEAMS AND COLLEAGUES

Bruce K, & Suserud BO. The handover process and triage of ambulance-borne patients: The experiences of emergency nurses. *Nursing in Critical Care*. 10(4):201-209, July 2005.

One of the most important tasks that a nurse faces in the emergency room, when receiving a patient, is handover and the triage function. The aim of the study was to explore the experiences of nurses receiving patients who were brought into hospital as emergencies by ambulance crews through an analysis of the handover and triage process. A qualitative descriptive interview study inspired by the phenomenological method was used with six emergency nurses. There are three elements to a handover: a verbal report, handing over documented accounts and the final symbolic handover when a patient is transferred from the ambulance stretcher onto the hospital stretcher. The study identified that the verbal communication between ambulance and emergency nurses was often very structured. The ideal handovers often involved patients with very distinct medical problems. The difficult handover or the 'non-ideal' one was characterized by a significantly more complicated care situation. The handover function was pivotal in ensuring that the patient received the correct care and that care was provided at the appropriate level. The most seriously afflicted patients arrived by ambulance; therefore, the interplay between pre-hospital and hospital personnel was vital in conveying this important information. To some extent, this functioned well, but this research has identified areas where this care can be improved.

Conclusion: Deficiencies in handover processes exist, especially in communication and disposition information. These affect doctors, the ED and patients adversely. Recommendations for improvement include guideline development to standardize handover processes, greater use of information technology facilities.

Fairbanks RJ, Bisantz AM, & Sunm M. Emergency department communication links and patterns. *Annals of Emergency Medicine*. 50(4):396-406, October 2007.

STUDY OBJECTIVE: We characterize and describe the communication links and patterns between and within emergency department (ED) practitioner types.

METHODS: This is a prospective, observational study of emergency physician and nursing staff communication patterns in an academic ED using link analysis techniques. Twenty ED staff members were observed in the pediatric and adult acute areas of the ED, including attending physicians, residents, nurses, and charge nurses. Data were recorded for each communication event, including duration, mode, partner, location, and interruptions. Because this study was intended to focus on professionally related communication between staff, social interactions and direct patient interactions were excluded. Frequency percentage and duration were calculated for each measure, and link analysis graphs were prepared to assist in interpretation of the data.

RESULTS: One thousand six hundred sixty-five total communication events were recorded during a total of 39 hours 12 minutes of observation. Face-to-face communication was the most common mode. Communication links and patterns were described and graphically represented using a link analysis technique. Communication gaps were found between ambulance providers and the providers who would ultimately take care of the patient during their ED stay. Attending physicians communicated often despite caring for separate patients, and the charge nurse seemed to be the hub for communication, linking ED personnel with non-ED staff. In the adult area, interruption rates ranged from 6.9 per hour (attending physician) to 0.5 per hour (bedside nurse), and in the pediatric area they ranged from 3.6 per hour (attending physician) to 0.3 (bedside nurse).

CONCLUSION: Distinct patterns are identified. These results will be helpful in designing future communication adjuncts in the ED.

Fernandez R, Kozlowski SWJ, Shapiro MJ, & Salas E. Toward a definition of teamwork in emergency medicine. *Academic Emergency Medicine*. 15(11):1104-1112, November 2008.

The patient safety literature from the past decade emphasizes the importance of teamwork skills and human factors in preventing medical errors. Simulation has been used within aviation, the military and now health care domains to effectively teach and assess teamwork skills. However, attempts to expand and generalize research and training principles have been limited due to a lack of a well-defined, well-researched taxonomy. As part of the 2008 Academic Emergency Medicine Consensus Conference on "The Science of Simulation in Healthcare," a subset of the group expertise and group assessment breakout sections identified evidence-based recommendations for an emergency medicine (EM) team taxonomy and

performance model. This material was disseminated within the morning session and was discussed both during breakout sessions and via online messaging. We present a well-defined, well-described taxonomy that will help guide design, implementation, and assessment of simulation-based team training programs.

Krug SE. The art of communication: Strategies to improve efficiency, quality of care and patient safety in the emergency department. *Pediatric Radiology*. 38(SUPPL.4):S655-S659, 2008.

The practice of pediatric emergency medicine (PEM) has been supported by wonderful advancements in diagnostic testing, particularly in medical imaging. One of the most remarkable has been CT, which has arguably become our most valuable diagnostic tool in the emergency department (ED). PEM specialists have grown increasingly aware of quality and safety concerns in the care of children in emergency medical settings, spurred in part by a rapid growth in ED utilization and significant overcrowding. In the midst of this comes the revelation that one of our most valued diagnostic tools might place our youngest patients at a significant risk for the development of fatal cancer. This article reinforces the fundamental importance of communication and teamwork as a means to promote patient care quality and safety in the ED, and it offers partnership strategies for PEM and pediatric radiology specialists to consider as they address these important concerns.

Landucci DGB. The art & science of the handoff: How hospitalists share data. *The Hospitalist*, 3-6, Spring 1999.

Whenever a patient's care must be turned over to another clinician, one clinician, or hospitalist "signs off" or "signs out" a patient to another hospitalist. This is labeled a handoff.

Often there are complications in communication between the clinicians during the handoff. Poor delivery of information or poor listening contribute, however additional factors may include the degree of fatigue or anxiety the hospitalists are experiencing, the complexity of the information and even the degree of relationship, trust and respect between the parties.

Suggestions for successful handoffs include: 1) Listening: The handoff should be conducted face to face in a quiet room without distractions so that the oncoming hospitalist can easily concentrate and take notes, 2) Use of a template: Established procedures at sign out should ensure that key data elements are communicated about every case; 3) Fatigue and Anxiety: In order to mitigate the effects of exhaustion, start sign out at night before the actual shift change; 4) Case Complexity: Patients with similar presentations create a unique challenge in order to carefully distinguish individual clinical data; 5) Inadequate databases: Collecting a relevant data base is essential to proper treatment. Therefore clinicians must be willing to change direction if the data prove the existing approach is inadequate. Differences in opinion about how to establish diagnosis or management issues should be communicated with care to the medical team and family members; 6) Respect: The proper hospitalist model is similar to that of a group practice where all practitioners have different skills and deficiencies. This necessitates that all members listen, ask questions and filter information carefully.

Key elements in the Handoff should include: 1) Patient data such as age, date of admission, name of PC physician, 2) complaint and diagnosis, 3) organization of important findings by organ system, 4) findings from test results and information about additional tests, 5) proposal for patient management organized according to problems, 6) medications, 7) code status, 8) discussion summary of family issues, and 9) estimates of length of stay or projected discharge plan.

McFetridge B, Gillespie M, Goode D, & Melby V. An exploration of the handover process of critically ill patients between nursing staff from the emergency department and the intensive care unit. *Nursing in Critical Care*. 12(6):261-269, November/December 2007.

The transfer of information between nurses from emergency departments (EDs) and critical care units is essential to achieve a continuity of effective, individualized and safe patient care. There has been much written in the nursing literature pertaining to the function and process of patient handover in general nursing practice; however, no studies were found pertaining to this handover process between nurses in the ED environment and those in the critical care environment. The aim was to explore the process of patient handover between ED and intensive care unit (ICU) nurses when transferring a patient from ED to the ICU. This study used a multi-method design that combined documentation review, semistructured individual interviews and focus group interviews. A multi-method approach combining individual interviews, focus group interviews and documentation review was used in this study. The respondents were selected from the ED and ICU of two acute hospitals within Northern Ireland. A total of 12 respondents were selected for individual interviews, three nurses from ED and ICU, respectively, from each acute hospital. Two focus groups interviews were carried out, each consisting of four ED and four ICU nurses, respectively. Qualitative analysis of the data revealed that there was no structured and consistent approach to how handovers actually occurred. Nurses from both ED and ICU lacked clarity as to when the actual handover process began. Nurses from both settings recognized the importance of the information given and received during handover and deemed it to have an important role in influencing quality and continuity of care. Nurses from both departments would benefit from a structured framework or aide memoir to guide the handover process. Collaborative work between the nursing teams in both departments would further enhance understanding of each others' roles and expectations.

O'Mara K. Communication and conflict resolution in emergency medicine. *Emergency Medicine Clinics of North America*, 17(2): 451-9, 1999.

Communication issues arise in emergency physician relationships with patients, nursing, and physician colleagues. It is important to acknowledge various perspectives in order to promote positive relationships and to avoid the social, medical, and legal hazards associated with miscommunication. This article outlines fundamental processes involved in these three important relationship groups.

Patel PB, & Vinson DR. Team assignment system: Expediting emergency department care. *Annals of Emergency Medicine*. 46(6):499-506, December 2005.

STUDY OBJECTIVE: We designed and implemented an emergency department (ED) team assignment system, each team consisting of 1 emergency physician, 2 nurses, and usually 1 technician. Patients were assigned in rotation upon arrival to a specific team that was responsible for their care. We monitored the time from arrival to physician assessment, percentage of patients who left without being seen by a physician, and patient satisfaction before and after team assignment system implementation.

METHODS: This study was done in a suburban community hospital with an annual ED census of approximately 39,000. Time to physician assessment was defined from the completion of the medical screening evaluation by an ED nurse at triage to initiation of emergency physician evaluation. Times were documented on the ED paper record and manually entered into a computerized registration by the clerical staff. Patients who left without being seen was reported as percentage of total ED visits. Patient satisfaction scores using a 5-point Likert scale to assess satisfaction with the emergency physician, ED staff courtesy, and coordination of care were gathered every 3 months from random mailings to a subset of patients.

RESULTS: The 12-month ED census was 38,716 before team assignment system implementation and 39,301 afterwards. Complete time data were recorded for 34,152 (88.2%) and 32,537 (82.8%) of the patients, respectively. The mean time to physician assessment was 71.3+/-7.0 minutes before and 61.8+/-6.4 minutes after team assignment system implementation (absolute difference -9.5 minutes; 95% confidence interval [CI] -5.8 to -13.5 minutes). The percentage of patients seen by a physician within 1 hour was 56.3% before and 64.0% after team assignment system implementation (absolute difference 7.7%; 95% CI 5.1% to 10.3%). The percentage of patients who waited more than 3 hours for physician assessment was 17.8% before and 11.8% after team assignment system implementation (absolute difference -6.0%, 95% CI -4.0% to -8.1%). Before team assignment system, the left without being seen rate was 2.3% compared to 1.6% after team assignment system (absolute difference -0.8%; 95% CI -0.4% to -1.1%). Patient satisfaction reported as very good or excellent showed improvement in satisfaction with the physician (absolute increase 3.1%; 95% CI 1.0% to 5.3%), staff courtesy (absolute increase 4.5%; 95% CI 2.3% to 6.7%), and coordination of care (absolute increase 3.6%; 95% CI 0.8% to 6.4%).

CONCLUSION: The implementation of a team assignment system in our ED was associated with reduced time to physician assessment, a reduced percentage of patients who left without being seen, and improved patient satisfaction.

Risser DT, Rice MM, Salisbury ML, Simon R, Jay GD, & Berns SD. The potential for improved teamwork to reduce medical errors in the emergency department. The MedTeams Research Consortium. *Annals of Emergency Medicine*, 34(3): 373-83, 1999.

This article describes emergency department care work teams designed to improve team communication and coordination and reduce error. The core of this teamwork system is the teaching of teamwork behaviors and skills, development of teamwork habits, and creation of small work teams, all of which are key teamwork concepts largely drawn from successful aviation programs. Arguments for enculturating teamwork into ED practice are drawn from a retrospective study of ED malpractice incidents. Fifty-four incidents (1985-1996), a sample of convenience drawn from 8 hospitals, were identified and judged mitigable or preventable by better teamwork. An average of 8.8 teamwork failures occurred per case. More than half of the deaths and permanent disabilities that occurred were judged avoidable. Better teamwork could save nearly \$3.50 per ED patient visit. Caregivers must improve teamwork skills to reduce errors, improve care quality, and reduce litigation risks.

Rosen MA, Salas E, Wu TS, Silvestri S, Lazzara E, Lyons R, Weaver S, & King H. Promoting teamwork: An event-based approach to simulation-based teamwork training for emergency medicine residents. *Academic Emergency Medicine*. 15(11):1190-1198, November 2008.

The growing complexity of patient care requires that emergency physicians (EPs) master not only knowledge and procedural skills, but also the ability to effectively communicate with patients and other care providers and to coordinate patient care activities. EPs must become good team players, and consequently an emergency medicine (EM) residency program must systematically train these skills. However, because teamwork-related competencies are relatively new considerations in health care, there is a gap in the methods available to accomplish this goal. This article outlines how teamwork training for residents can be accomplished by employing simulation-based training (SBT) techniques and contributes tools and strategies for designing structured learning experiences and measurement tools that are explicitly linked to targeted teamwork competencies and learning objectives. An event-based method is described and illustrative examples of scenario design and measurement tools are provided. ies, ongoing feedback to staff, and quality assurance and education activities.

Shendell-Falik N, Feinson M, & Mohr B. Enhancing patient safety: Improving the patient handoff process through appreciative inquiry. *Journal of Nursing Administration*. 37(2):95-104, February 2007.

Patient transfers from one care giver to another are an area of high safety consequence, as is evident by many studies and the Joint Commission on Accreditation of Healthcare Organization's Patient Safety Goals. The authors describe how one hospital made measurable improvements in a patient handoff process by using an unconventional approach to change called appreciative inquiry. Rather than identifying the root causes of ineffective handoffs, appreciative inquiry was used to engage staff in identifying and building on their most effective handoff experiences.

Singer JJ, & Dean J. Emergency physician intershift handovers: An analysis of our transitional care. *Pediatric Emergency Care*. 22(10):751-754, October 2006.

The emergency department intershift transfer of patient care is a universal event. Despite the frequency of its occurrence and complexity of issues surrounding the exchange, emergency department patient handover is insufficiently explored in our literature. This article reviews the effectiveness and efficiencies of the handover practice. The authors provide personal opinion regarding favorable parameters for the prehandover, intershift meeting, and posthandover activities.

Stiell AP, Forster AJ, Still IG, & Van Walraven C. Maintaining continuity of care: A look at the quality of communication between Ontario emergency departments and community physicians. *Canadian Journal of Emergency Medicine*. 7(3):155-161, 2005.

BACKGROUND: To maintain continuity of care when a patient's care is transferred between physicians, continuity of patient information is required. This survey determined how, and how well, Ontario emergency departments (EDs) communicate patient information to physicians in the community.

METHODS: We surveyed Ontario ED chiefs to determine the most common media and methods used for disseminating information. We measured the perceived quality of their system, which was regressed against the hospital teaching status and community size using generalized logits modelling. Finally, we elicited the components of an ideal communication system for the ED.

RESULTS: One hundred and forty-three (85.6%) Ontario ED chiefs participated. The ED record of treatment was the most commonly used medium (95%). Postal service was the most common (55%) method of disseminating information. Thirty-three chiefs (23%) perceived the quality of communicating patient information from their ED as unsatisfactory or inadequate. This perception was significantly more prevalent in larger communities (excellent v. unsatisfactory [odds ratio (OR) 44.9, 95% confidence interval (CI) 13.9-140] and satisfactory v. unsatisfactory [OR 2.9, 95% CI 1.6-5.1]) and in teaching hospitals (satisfactory v. unsatisfactory [OR 9.7, 95% CI 4.7-20.3]). Seventy-eight percent of responding chiefs felt that patient information should be disseminated using electronic means, either through email or server access.

CONCLUSIONS: To communicate patient information to community physicians, Ontario ED chiefs report that a copy of the ED record of treatment is sent by postal service. More than one-fifth of ED chiefs perceived communication from their department as unsatisfactory or inadequate. Studies that assess the completeness and accuracy of the record of treatment are required as a first step for measuring the quality of patient information communication in the Ontario ED system.

VanSuch M, Naessens JM, Stroebel RJ, Huddleston JM, & Williams AR. Effect of discharge instructions on readmission of hospitalised patients with heart failure: Do all of the Joint Commission on Accreditation of Healthcare Organizations heart failure core measures reflect better care? *Quality and Safety in Healthcare*. 15:414-417, 2008

BACKGROUND: Most nationally standardised quality measures use widely accepted evidence-based processes as their foundation, but the discharge instruction component of the United States standards of Joint Commission on Accreditation of Healthcare Organizations heart failure core measure appears to be based on expert opinion alone.

OBJECTIVE: To determine whether documentation of compliance with any or all of the six required discharge instructions is correlated with readmissions to hospital or mortality.

RESEARCH DESIGN: A retrospective study at a single tertiary care hospital was conducted on randomly sampled patients hospitalised for heart failure from July 2002 to September 2003.

PARTICIPANTS: Applying the Joint Commission on Accreditation of Healthcare Organizations criteria, 782 of 1121 patients were found eligible to receive discharge instructions. Eligibility was determined by age, principal diagnosis codes and discharge status codes.

MEASURES: The primary outcome measures are time to death and time to readmission for heart failure or readmission for any cause and time to death.

RESULTS: In all, 68% of patients received all instructions, whereas 6% received no instructions. Patients who received all instructions were significantly less likely to be readmitted for any cause ($p=0.003$) and for heart failure ($p=0.035$) than those who missed at least one type of instruction. Documentation of discharge instructions is correlated with reduced readmission rates. However, there was no association between documentation of discharge instructions and mortality ($p=0.521$).

CONCLUSIONS: Including discharge instructions among other evidence-based heart failure core measures appears justified.

Varpio L, Hall P, Lingard L, & Schryer CF. Interprofessional communication and medical error: A reframing of research questions and approaches. *Academic Medicine. RIME: Proceedings of the Forty-Seventh Annual Conference November 2-November 5, 2008. 83(10) Supplement:S76-S81, October 2008.*

Progress toward understanding the links between interprofessional communication and issues of medical error has been slow. Recent research proposes that this delay may result from overlooking the complexities involved in interprofessional care. Medical education initiatives in this domain tend to simplify the complexities of team membership fluidity, rotation, and use of communication tools. A new theoretically informed research approach is required to take into account these complexities. To generate such an approach, we review two theories from the social sciences: Activity Theory and Knotworking. Using these perspectives, we propose that research into interprofessional communication and medical error can develop better understandings of (1) how and why medical errors are generated and (2) how and why gaps in team defenses occur. Such complexities will have to be investigated if students and practicing clinicians are to be adequately prepared to work safely in interprofessional teams.

Wayne JD, Tyagi R, Reinhardt G, Rooney D, Makoul G, Chopra S, & Darosa DA. Simple standardized patient handoff system that increases accuracy and completeness. *Journal of Surgical Education. 65(6):476-85, November/December 2008.*

PURPOSE: The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) defines a "handoff" as a contemporaneous, interactive process of passing patient-specific information from one caregiver to another for the purpose of ensuring the continuity and safety of patient care. The purpose of this study was to conduct a comprehensive investigation on the determinants of an effective handoff management system. Specifically, we sought to address the following null hypotheses: There is no difference before and after implementation of a new, low-cost, low-tech process for surgery patient handoffs in accuracy of information, completeness, clarity of exact time of patient transfer, and number of tasks appropriately handed off.

METHODS: Baseline description of the handoff process was mapped from 3 direct observation sessions by an efficiency operations team. A focus group with residents, nurses, hospital administrators, and surgeons was held to identify concerns with the baseline process and to identify important features of a handoff system. These data were used to create an electronic survey for residents to indicate level of agreement with importance of various features and qualities of a handoff system. Longitudinal telephone surveys were performed with residents throughout and after the development period to determine the residents' perceptions of the completeness, accuracy, clarity of handoff time, and method of information transfer, as well as the frequency with which residents were expected to perform tasks that should have been performed by outgoing residents. An online survey was sent to residents before and after the new handoff system was implemented to study perceptions of information quality, process operations, clarity of responsibility, and satisfaction with the handoff process. Perceptions were rated on operationally defined scales. All instruments underwent expert review for content validity and clarity of instructions and scale definition appropriateness. A standardized, and partially automated, handoff form was then developed. After a 2-week pilot study, telephone surveys were repeated. Data were analyzed using descriptive statistics, the Student t-test, and multivariate analysis.

RESULTS: Compared with baseline, residents reported increased accuracy, as measured by the perceived number of inaccuracies found on sign-out sheets ($p = 0.003$). Completeness of the information on sign-out sheets also was improved ($p = 0.015$). Clarity as to the time of transfer of care from outgoing (day team) to incoming (night float) improved ($p = 0.0001$). The type of rotation (intensive care unit vs non-intensive care unit) did lead to an improvement (confidence interval < 99%). Across both shifts, the perceived number of inappropriate tasks transferred decreased significantly. Experience (months of training) and type of rotation did not affect these measures.

CONCLUSIONS: By simplifying and standardizing the handoff instrument, we demonstrated improvements in resident perceptions of accuracy, completeness, and number of tasks transferred. This low-cost, low-tech paradigm may be useful to others.

Weslien M, Nilstun T, Lundqvist A, & Fridlund B. When the unreal becomes real: Family members' experiences of cardiac arrest. *Nursing in Critical Care, 10(1):15-22, January/February 2005.*

The aim of this study was to provide insight into family members' experiences related to cardiac arrest. Data were collected through semi-structured interviews with 17 family members approximately 5-34 months after the cardiac arrest of a relative. As the focus was on the family members' experiences seen from a holistic perspective, content analysis was chosen for the study. When the event occurred to the patient, family members realized the need for assistance and managed to initiate first actions. When the emergency medical service arrived, family members responded to stress and forgot their own needs. When the staff took over at the hospital, family members not only received sympathy but also encountered professional distancing. Because their experiences vary widely, the encounter has to be developed through a comforting, sympathetic and respectful dialogue in consideration for individuals' preferences.

Wiese CHR, Bartels U, Geyer A, Graf BM, & Hanekop GG. Palliative and emergency medicine: Teamwork through communication. Palliativ- und Notfallmedizin: Teamarbeit durch Kommunikation. Notarzt. 23(3):90-93, July 2007.

Demands for improvement of palliative care have increased in Germany in the last years. Suitable models of care have been established that enable patients to stay at home in the last days of their life. Nevertheless, relatives can be challenged by acute exacerbations of symptoms and call the emergency, initiating a sequence of emergency actions. In these situations conflicts between principles of palliative and emergency medicine can rise. We report an emergency in a male patient with cardiac arrest suffering from terminal carcinoma of the prostate. Despite patient's refusal for treatment the relatives called an ambulance after the patient had got unresponsive due to cardiac arrest. After a short period of cardiopulmonary-resuscitation spontaneous circulation could be established. Only then the emergency physician was told that the patient had refused resuscitation. After this information was communicated, intensive care treatment was not considered and the emergency physician arranged direct admission to our palliative care unit. This case demonstrates that emergency physicians can be confronted with palliative care patients. A cooperation of both disciplines (palliative and emergency medicine) is necessary to achieve the best care for the patient. Moreover involvement of a palliative care team (PCT) in combination with a written document, called palliative emergency form ("Palliativkrisebogen"), as well as an advance directive can improve accepting patient's wishes in terminal care. The "Palliativkrisebogen" contains patient's history and his advance directive. Communication between palliative care and emergency medicine may help to find out the patients preferences quickly. This facilitates the kind of care a patient wants. The use of a "Palliativkrisebogen" should be co-ordinated with the juridical regulations in the future.

Xiao Y, Schenkel S, Faraj S, Mackenzie CF, & Moss J. What whiteboards in a trauma center operating suite can teach us about emergency department communication. Annals of Emergency Medicine. 50(4):387-395, October 2007.

STUDY OBJECTIVE: Highly reliable, efficient collaborative work relies on excellent communication. We seek to understand how a traditional whiteboard is used as a versatile information artifact to support communication in rapid-paced, highly dynamic collaborative work. The similar communicative demands of the trauma operating suite and an **emergency** department (ED) make the findings applicable to both settings.

METHODS: We took photographs and observed staff's interaction with a whiteboard in a 6-bed surgical suite dedicated to trauma service. We analyzed the integral role of artifacts in cognitive activities as when workers configure and manage visual spaces to simplify their cognitive tasks. We further identified characteristics of the whiteboard as a communicative information artifact in supporting coordination in fast-paced environments.

RESULTS: We identified 8 ways in which the whiteboard was used by physicians, nurses, and with other personnel to support collaborative work: task management, team attention management, task status tracking, task articulation, resource planning and tracking, synchronous and asynchronous communication, multidisciplinary problem solving and negotiation, and socialization and team building. The whiteboard was highly communicative because of its location and installation method, high interactivity and usability, high expressiveness, and ability to visualize transition points to support work handoffs.

CONCLUSION: Traditional information artifacts such as whiteboards play significant roles in supporting collaborative work. How these artifacts are used provides insights into complicated information needs of teamwork in highly dynamic, high-risk settings such as an ED.

Ye K, Taylor D, Knott JC, Dent A, & MacBean CE. Handover in the emergency department: Deficiencies and adverse effects. Emergency Medicine Australasia. 19(5):433-441, October 2007.

OBJECTIVE: To determine problems resulting from ED handover, deficiencies in current procedures and whether patient care or ED processes are adversely affected.

METHODS: A prospective observational study at three large metropolitan ED comprising three components: observation of handover sessions, 2 h post-handover surveys of the receiving doctors and a general survey of ED doctors.

RESULTS: The handovers of 914 patients were observed during 60 handover sessions in a 3-month period. Medical information, including presenting complaints, was handed over better than communication and disposition information. Seven hundred and seven (77.4%) of 914 potential post-handover interviews were undertaken. Most (88.3%) doctors thought the handover was 'adequate/good'. However, information was perceived as lacking in 109 (15.4%) handovers, especially details of management (35, 5.0%), investigations (33, 4.7%) and disposition (33, 4.7%). There was a significant difference in the perceived quality of handovers (1-5 scale where 5 = excellent) when all required information was handed over and when it was not (median scores 4.0 vs 3.0, respectively, $P < 0.001$). As a result of perceived inadequate handovers, the doctor/ED and patient were affected adversely in 62 (8.8%) and 33 (4.7%) cases, respectively, for example, repetition of assessment, delays in disposition and care. Fifty doctors completed the general survey. Most believed communications made to inpatient units, inaccurate/incomplete information and disorganization were problematic.

Yong G, Dent A, & Weiland T. Handover from paramedics: Observations and emergency department clinician perceptions. *Emergency Medicine Australasia*. 20(2):149-155, April 2008.

OBJECTIVES: 1. To evaluate emergency clinician attitudes towards handover from prehospital paramedics. 2. To determine the content and methods of paramedic handover delivery to emergency clinicians.

METHODS: Exploratory study comprising questionnaire of emergency clinicians and observation of paramedic-to-emergency clinician handover with associated survey at an adult tertiary referral hospital with approximately 12 000 ambulance arrivals of 37 000 annual attendances.

RESULTS: Emergency staff found handover from paramedics on patient conditions relevant, especially for altered consciousness (94%, 95% CI 83.5-98.6), trauma (90%, 95% CI 82.0-98.4) and chest pain (88%, 95% CI 79.0-97.0), but less so for behavioural disturbance (67%, 95% CI 53.7-79.5). A total of 621 handovers from 311 ambulance arrivals were observed. Most arrivals (81%, 95% CI 76.4-85.4) were not preceded by prehospital communication. Paramedics handed over twice 91% of the time (95% CI 88.2-94.4). Doctors received direct paramedic handover for 12% (95% CI 8.0-15.1) of ambulance arrivals, including 19 team handovers, whereas triage nurses took 97% (95% CI 95.6-99.2) and attending nurses, 91% (95% CI 87.5-93.9). Fifty per cent (95% CI 42.7-57.3) of emergency clinicians referred to ambulance sheets. Handover information was perceived to be useful and accurate in more than 80% of instances. Verbal handover occurred before ambulance sheet completion for 78% (95% CI 73.5-82.7).

CONCLUSION: Although there is satisfaction in paramedic handover, prehospital notification and emergency physician contact with paramedics is uncommon for low acuity patients, who constitute the majority of ambulance attendances and hospital admissions. Scope for improved direct doctor-paramedic communication exists.

V. ONLINE RESOURCES

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