PATIENT-CENTERED OUTCOMES/COMPARATIVE EFFECTIVENESS
Patients and their families provide unique perspectives on safety and quality of health care, yet current reporting mechanisms do not capture patients’ safety concerns during hospitalization. Moreover, some patients and families may hesitate to share negative information. MySafeCare (MSC), a web-based and mobile enabled application, has been developed to address this gap by providing patients, families, and their friends an electronic platform to communicate safety concerns to hospital staff in real-time. The patient and family facing application has 9 categories of concerns and patients/families may report anonymously or identify themselves. The clinical dashboard allows hospital staff to view reported concerns and document/communicate follow up. Development of both components involved an iterative design process based on stakeholders input, including patients/family members and clinical unit directors. A pilot study of MySafeCare was conducted on a vascular unit at Brigham and Women’s Hospital. During the 3 week period, the rate of safety reporting increased from 0.03 concerns/day prior to MSC to 0.09 concerns/day with MSC. Hospital staff, patients, and family-member respondents reported satisfaction with using MySafeCare. The application is currently live on the Medical Intensive Care Unit and Oncology Unit. MySafeCare workflow, functionality, and findings from these units will be shared.

Clinical Implications: Gaining a better understanding of patient perceived safety concerns through MySafeCare has the potential to lead to quality improvement initiatives in learning health systems, and capturing these threats in real-time to help mitigate risks before they occur.

81. The Cultural Factors Defining the Community Health Representative 86th Patient Relationship

Brittany Couture, BS
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MySafeCare is an electronic research tool that lets patients, families and their friends share worrisome situations or events that occur during their hospital stay. The user of the patient facing application can share any concerns they may have about their care by choosing one of the 9 provided concern categories (i.e. Medication, Communication, Pain), with the opportunity to provide their name and room number or to remain anonymous. The submissions go to hospital staff at the units, and are displayed in the clinical dashboard, which allows staff to view and comment/follow up on specific concerns. MySafeCare aims to help improve patient safety and increase our understanding of patient perceived safety concerns, as well as learn about non-routine and unexpected events and how to mitigate these from occurring. Initial testing of the application found that patients and families used MySafeCare to report concerns as well as compliments. Acknowledgments: This work was funded by AHRQ 1P30HS023533-05.

82. Effect Of The Use of Theophylline and Sepsis Outcomes

Peter Hou, MD

Although theophylline have been shown to have anti-inflammatory effects, the benefits of theophylline on sepsis remain a matter of debate. The aim of our study was to determine the sepsis outcomes of theophylline users and non-users. Methods: This nationwide, population-based, propensity score-matched analysis used data from the linked administrative databases of Taiwan’s National Health Insurance program. Patients were hospitalized for sepsis between 2000 and 2009. Patients were divided into theophylline users and non-users. The primary outcome was in-hospital death. The secondary outcome was intensive care unit admission, shock events, and the use of mechanical ventilation. Results: A propensity score-matched cohort of 86,318 theophylline users and 86,318 non-users was included. The in-hospital death was significantly lower in the theophylline users (OR 0.95, 95% CI 0.93-0.97) compared with non-users. The risks of shock event (OR 0.96, 95% CI 0.95-0.97) and mechanical ventilation (OR 0.96, 95% CI 0.94-0.98) were also lower in the theophylline users. Conclusions: Theophylline use is associated with a lower risk of sepsis-related mortality compared with no theophylline use.

Clinical Implications: Having anti-inflammatory effects, theophylline may be a treatment for sepsis in COPD patients.
Most trauma centers in the United States keep a collection of information about patients. Registries allow hospitals to monitor their own performance and learn from every patient they treat. One problem with existing registries is that they can include information up until the point at which patients leave the hospital. This misses an important opportunity as we know that the effects of being severely injured persist for some time after patients are discharged from hospital. It is currently very difficult to know how patients’ long-term wellbeing is affected by clinical decisions that were made while they were in hospital. The FORTE Study is exploring the feasibility of collecting long-term post discharge information through a short telephone survey. This survey will be administered to patients or their proxies (if they are unable to participate themselves) at 6 or 12 months after injury. It will contain questions concerning to health-related quality of life, emotional and physical wellbeing. This pilot study will help us understand how to best approach patients and contacts with healthcare, as well as validated PTSD, trauma-specific (TQols) and generic (Short-Form 12) health-related QoL questionnaires. Data collected will be linked to the BWH/MGH TRs. Institutional adherence to the AUC at an academic MMS practice was evaluated. Clinical Implications: Providing information on the long-term recovery experience after major trauma and measuring outcomes that are meaningful to patients and their families will help researchers, clinicians, and policymakers understand the impact of specific treatments and systems on care outcomes.

The Patient SatisfActive® was implemented in the Medical Intensive Care Unit (MICU) at Brigham and Women’s Hospital as part of the PROSPECT research project, which compared pre- and post-intervention periods lasting 11 months each. We measured the impact of this intervention on family experience/satisfaction and improvement in family experience/satisfaction. Various other scores showed the use of the Model contributed to a statistically significant improvement in family experience/satisfaction and dignity/respect outcomes by using the FS-ICU 24, a validated survey with long-term follow-up or that routinely integrate PRO measures. Reimbursement is currently a significant barrier for including PROs in clinical care. The PROSPECT research project has demonstrated that it is feasible to include PROs in daily clinical care, but more research is needed to understand the impact of this intervention on family experience/satisfaction and improve patient/family experience in real-time. The Model empowers patients and families to take on the role of their care by supporting clinicians when asking and responding to patient/family needs, concerns and expectations. Clinicians document interactions with their patients as a way to share and follow-up on plan of care. The Patient SatisfActive® was implemented in the Medical Intensive Care Unit (MICU) at Brigham and Women’s Hospital as part of the PROSPECT research project, which compared pre- and post-intervention periods lasting 11 months each. We measured the impact of this intervention on family experience/satisfaction and dignity/respect outcomes. Thus, incorporating a structured Model into clinical workflow had a positive impact on family satisfaction with the care received in the MICU.

Clinical Implications: The Patient SatisfActive® can be refined to fit unique workflows providing opportunities for application in many clinical environments. In various hospital settings the Model could guide clinicians to better address patient/family needs, concerns and expectations as a way to increase satisfaction.

In 2001, Bell et al concluded that patients with some serious medical conditions are more likely to die in the hospital if they are admitted on a weekend than if they are admitted on a weekday. The aim of this study was to investigate the association of weekend admission with the short-term mortality of severe sepsis patients. Methods: Using Taiwan’s National Healthcare Insurance Research Database, we identified all patients admitted due to severe sepsis between January 2000 and December 2011. The short-term mortality of patients admitted on weekends and those admitted on weekdays were compared yearly and over the study time period. Results: A total of 398,043 of patient were identified. Compared with patients admitted on weekdays, patients admitted on weekdays had a lower mortality rate: 7 days (HR 0.90, 95% CI 0.89-0.92), 14 days (HR 0.92, 95% CI 0.91-0.94), and 28 days (HR 0.96, 95% CI 0.95-0.97) over the study time period. In an exploratory analysis, patients who were admitted on Saturday had a lower mortality rate compared with those admitted on Sunday (HR 0.90, 95% CI 0.89-0.91). Conclusions: Patients with severe sepsis are more likely to die in the hospital if they were admitted on weekends than if they were admitted on weekdays.

Clinical Implications: Variations in hospital mortality may partly be explained by less staffing and excess workload. The weekend effect could reflect inadequate numbers of physicians, nursing or medical staff, training or working time.
This study aimed to evaluate the cost-effectiveness of percutaneous renal mass biopsy (RMB) in the management of small renal masses (SRMs) from the societal perspective. A Markov model was developed to compare the lifetime costs and quality-adjusted life years (QALYs) of RMB with possible delayed treatment and immediate treatment, including percutaneous ablation (PA), laparoscopic ablation (LA), robotic partial nephrectomy (RPN), open partial nephrectomy (OPN), laparoscopic radical nephrectomy (LRN), and open radical nephrectomy (ORN). The willingness-to-pay threshold was $50,000/QALY-gained. Our study found that, among all the options, RMB with PA had the lowest total costs ($142,584) and QALYs (9.02). RMB with OPN (costs: $146,539; QALYs: 9.64) was the optimal choice compared to RMB with PA (incremental cost-effectiveness ratio: $6,397/QALY-gained). RMB with possible treatment was cost-effective compared to the corresponding immediate treatment. However, immediate treatment was preferred to RMB with the corresponding treatment, if costs incurred by chronic kidney disease decreased. Compared to RMB with the corresponding treatment, immediate PA was preferred in old patients with a large tumor size, while immediate LA, RPN and OPN were preferred in young patients with a large tumor size. LRN and ORN were preferred to the corresponding immediate treatment regardless of age and tumor size.

Clinical implications: Due to increased healthcare expenditures, selection of treatments for SRMs should consider long-term economic outcomes. Our study identified the most cost-effective treatment and factors critical to its viability in various scenarios, which helps optimize the allocation of limited healthcare resources.