

Research Linking Safe Patient Limits to Patient Safety in Massachusetts Hospitals

NOTE: Below you will find summaries of recent peer reviewed scientific studies that detail the impact of safer patient limits and safer RN staffing on specific patient outcomes for Massachusetts Hospitals. To view an abstract or the full study, click on the title of each study.

Factors Associated with the Removal of Urinary Catheters After Surgery

Catherine Y. Read, PhD, RN; Judith Shindul-Rothschild, PhD, RN; Jane Flanagan, PhD, RN, ANP-BC, AHN-BC; Kelly D. Stamp, PhD, RN, ANP-C, CHFN, FAHA. *Journal of Nursing Care Quality*: [Post Author Corrections: August 24, 2017](#) doi: 10.1097/NCQ.0000000000000287

- This study which included 59 Massachusetts hospitals, found significant association between better nursing staffing and patient outcomes. Removing indwelling urinary catheters within 48 hours of surgery is an evidence-based strategy to prevent catheter-associated urinary tract infections (CAUTI), a complication that leads to patient distress and decreased reimbursement for hospitals from CMS. Publicly available data from the Centers for Medicaid & Medicare Services were used to analyze factors associated with removal of the urinary catheter within 48 hours after surgery in 59 Massachusetts hospitals. Three factors explained 36% of the variance in postoperative urinary catheter removal: fewer falls per 1,000 discharges, better nurse-patient communication, and higher percentage of Medicare patients. Timely urinary catheter removal was significantly greater in hospitals with more licensed nursing hours per patient

Beyond the Pain Scale: Provider Communication and Staffing Predictive of Patients' Satisfaction with Pain Control

[Shindul-Rothschild J](#), [Flanagan J](#), [Stamp KD](#), [Read CY](#), [Pain Manag Nurs](#). 2017 Dec;18(6):401-409. doi: 10.1016/j.pmn.2017.05.003. Epub 2017 Aug 23.

- This study of hospitals in Massachusetts, California and New York, found that patients' satisfaction with pain management is linked to nurse staffing. Given the opioid crisis, pain management is front and center in health care today," the authors stated." We need to think critically of how we are managing pain, how we are communicating with patients, and how members of treatment teams are communicating with each other." Findings from the study support nurses as key contributors to patient satisfaction with pain control and highlight the need for adequate numbers of nursing staff to achieve optimal patient satisfaction with pain management."

Nurse Staffing and Hospital Characteristics Predictive of Time to Diagnostic Evaluation for Patients in the Emergency Department.

[Shindul-Rothschild J](#), [Read CY](#), [Stamp KD](#), [Flanagan J](#), [J Emerg Nurs](#). 2017 Mar;43(2):138-144. doi: 10.1016/j.jen.2016.07.003. Epub 2016 Oct 20.

- This groundbreaking study of Massachusetts hospitals shows that the number of patients emergency department (ED) nurses care for is directly related to how long patients wait for treatment. The study found wait times in trauma EDs for diagnostic evaluation double for every three additional patients an emergency nurse cares for in 24 hours, according to the study's analysis of 15 Massachusetts hospital trauma EDs. Three patients added to a non-trauma ED nurse's assignments means an extra 15 minutes waiting for evaluation. "We already know that Massachusetts emergency departments are overcrowded and patients are struggling with excessive wait times," according to lead author Boston College Associate Professor Judith Shindul-Rothschild, PhD, MSN, RN "the best way to significantly lower patient wait times is to adequately staff our EDs with registered nurses."

Predictors of 30-Day Readmission for Pneumonia

[Flanagan J](#), [Stamp KD](#), [Gregas M](#), [Shindul-Rothschild J](#), [J Nurs Adm](#). 2016 Feb;46(2):69-74

- This study examined variances in outcome measures associated with 30-day pneumonia readmissions from 577 nonfederal general hospitals in Massachusetts, California, and New York from 4 sources: number of hospital-acquired conditions, patient perception of care, quality outcome measures, and demographic data to explain variances associated with 30-day pneumonia readmission rates. Patients readmitted within 30 days for pneumonia increases the length of hospital stay by 7 to 9 days, increases crude mortality rate 30% to 70%, and costs \$40,000 or greater per patient. Results: Three factors increased pneumonia readmission rates: poor nurse-patient communication, poor staff responsiveness to patient needs, and iatrogenic pneumothorax. **Conversely, factors lowering pneumonia readmission rates included patients hospitalized in California, where there is higher RN staffing, and higher proportions of nursing staff to total hospital personnel.** Conclusion: Findings suggest lower nurse staffing, poor nurse-patient communication, and nurse responsiveness to patient needs contribute to increased pneumonia readmission rates.

Predictors of Excess Heart Failure Readmissions: Implications for Nursing Practice

Stamp, Kelly D. PhD, ANP-C; Flanagan, Jane PhD, ANP-BC; Gregas, Matt PhD; Shindul-Rothschild, Judith PhD, RNPC, *Journal of Nursing Care Quality*: [April/June 2014 - Volume 29 - Issue 2 - p 115-123](#)

- This study for the first time provided concrete, peer-reviewed data comparing standards of nursing care and patient outcomes for hospitals in Massachusetts, where there is no limit on nurses' patient assignments, and California, where such a law has been in place for nearly 14 years. The study provides conclusive evidence that Massachusetts hospital nurses are caring for significantly more patients than their counterparts in California and that patients in Massachusetts are receiving over three hours less care per day from registered nurses than patients on the West Coast (just over six hours of care for patients in our hospitals vs. over nine hours of care per day in California). As a result, the study found an association between nurse staffing in Massachusetts and a higher rate of readmissions for heart failure. The authors point out that heart failure is most common and the most expensive condition for which patients are admitted to hospitals, and the number one cause of death in America.

