Minimizing Healthcare-Associated Infections: A Simulation Study

Goal: The purpose of this simulation study is to understand the effects of various methods of managing care associated infections (HAIs), specifically catheter associated urinary tract infections (CAUTIs), on the number of CAUTIs reported in an inpatient healthcare organization. The research objective is to derive new models to help hospitals minimize their total number of healthcare associated infections (HAIs) while maintaining excellent levels of patient service. This research will help to answer the following questions:

1. How have current prevention strategies been unsuccessful in eliminating CAUTIs?
2. What are the main system factors conducive to the occurrence of CAUTIs?
3. Which patient populations have the largest chance of suffering a CAUTI?
4. What are the best methods for managing CAUTIs throughout the healthcare organization?

The Impact of System Factors on Patient Perceptions of Quality of Care

Goal: The purpose of this research is study the impact of the providers’ system factors on the patient perceptions of quality of care which is currently assessed by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores.

- As national policy efforts, such as VBPR are implemented, understanding the potential tradeoffs between patient satisfaction and measures of efficiency of hospital system factors is important to achieve health equity.
- This research will identify systems factors that can prove to be significant in improving communication between providers and patients.
- Currently six out of the eight dimensions evaluated in the HCAHPS survey involve communication.
- The final goal is to create a health system that is easy to access and navigate; that is meeting patients' needs; and where patients and their families feel they are being heard, respected, and able to contribute to decisions related to their own care.

Recent Papers (students):

- Dubay, D., and E. Pérez "Scheduling Hospitalists Considering Patient Perceptions of Quality of Care" submitted.

Acknowledgments

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