

## **INDUSTRIAL ENGINEERING SEMINAR**

**Date: March 21, 2014**

**Time: 10am-11am**

**Place: D 102**

### **A Patient-Centered Surgical Home to Improve Outpatient Surgical Processes of Care and Outcomes**

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#### **Abstract**

Preparing patients for surgery is critical for achieving the best possible surgical outcomes. To do this most effectively, care must be coordinated across several types of specialists, and potentially across multiple settings. In this paper, we develop a Patient-Centered Surgical Home (PCSH) for outpatient surgery based on the concept of the Perioperative Surgical Home proposed by the American Society of Anesthesiologists. A key feature of the PCSH is to have an anesthesiology preoperative assessment clinic (APC) serve as system coordinator and information integrator. Based on an extensive study of outpatient surgery at the University of Texas Health Science Center at San Antonio, using statistical analysis and simulation, we demonstrate how this can be accomplished. We show that in order for the PCSH to succeed, APC must see the *right* patients with the *right* information by overcoming improper triaging of patients and patient information deficiencies. We discuss the potential benefits of the PCSH in patient care, operating room utilization, and patient testing at the teaching hospital considered in our study. Since APC-like clinics are common in practice, our findings have great potential for wide-spread implementation of similar PCSH models with commensurate benefits. (Joint work with Dongyang (Ester) Wang , Jonathan F. Bard, Luci K. Leykum, Susan Noorily and Poornachand Veerapaneni)

#### **Short Biography**

Douglas Morrice holds the Bobbie and Coulter R. Sublett Centennial Professorship in Business. He is also Professor of Operations Management and the Director of the University of Texas Supply Chain Management Center of Excellence ([www.mcombs.utexas.edu/scm](http://www.mcombs.utexas.edu/scm)), a company-sponsored center dedicated to developing research and teaching programs in supply chain management in the Red McCombs School of Business. He served as Information, Risk, and Operations Management Department Chair from 2007-2011. Dr. Morrice received his Ph.D. in Operations Research and Industrial Engineering from Cornell University. His research includes the modeling and analysis of service operations, risk management, and supply chain management. Dr. Morrice's research has received funding from SAP America under the University Alliance Research Grant Program. Additionally, he was a Visiting Research Scientist for Schlumberger from 1996-1998. He has also worked on projects with Dell and HEB Grocery Company. Most recently, Dr. Morrice has worked in healthcare with the University Health Sciences Center, San Antonio and the University Hospital System. This work has been funded by a University of Texas Systems grant.

Dr. Morrice has over 40 technical publications and 2 patents. His research has appeared in *Management Science*, *Operations Research*, *IIE Transactions*, *Journal of Production and Operations Management*, and the *Association for Computing Machinery Transactions on Modeling and Computer Simulation*. Dr. Morrice is a senior editor for the *Journal of Production and Operations Management* and an editor-at-large for *Interfaces*. Dr. Morrice served as a Proceedings Editor for the 1996 *Winter Simulation Conference*, the Program Chair for the 2003 *Winter Simulation Conference*, and as a member of the *Winter Simulation Conference* Board of Directors from 2004 to 2012. He is a member of *INFORMS* and the *Production and Operations Management Society*. He has designed and delivered executive development programs on operations modeling and supply chain management for a number of organizations including Schlumberger, PriceWaterhouse Coopers, and Texas Instruments.