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Reference

1. Cancer Center Business Summit. <http://www.cancerbusinesssummit.com/program.htm>



Abstracts

Extending Oncology Clinical Services to Rural Areas of Texas Via Teleoncology

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Purpose: For patients in rural Texas, accessing cancer specialists is quite challenging. Texas has many remote areas without community-based cancer care, requiring patients to travel long distances for specialized cancer professional consultations and services. An anticipated shortage of medical oncology expertise will exacerbate this situation. The advent of telemedicine tools has created an opportunity to easily extend specialized cancer services to underserved populations of patients with cancer in Texas. However, more research is needed to explore how well telemedicine tools will be accepted and used by both patients and oncologists alike. Data suggesting that teleoncology services are well accepted and liked by patients and health care professionals would provide a basis for expanding this method of delivering care. If effective, telemedicine tools could help patients with cancer in rural Texas, and throughout the United States, access the same quality of cancer care as their counterparts living in urban areas.

Methods: This pilot study will compare the effectiveness and reliability of remote oncologic clinical evaluations conducted via a telemedicine application with the traditional method of onsite evaluations in a private practice setting in rural East Texas. Patient and physician satisfaction with the clinical consultations and their perceptions of the telemedicine application will be assessed using a questionnaire administered at the conclusion of the clinical meetings.

Results: Initial results indicate high patient and physician satisfaction scores as well as high reliability and adequacy of the equipment and technology being used.

Conclusion: Both patients and physicians are highly satisfied with the quality of teleoncology examinations and express openness to this method of delivering care.

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Quantitative Analysis of Operating Room Inventory Management Practices at a Tertiary Cancer Center

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Purpose: In Ontario, health care spending has grown to 45% of total government expenditures. In a public health care system, changes in demographics and the emergence of innovative technologies challenge our ability to adapt to evolving patient needs. To maintain a high standard of clinical effectiveness, there is a need to identify opportunities to improve health care delivery. This study was structured to meet the following objectives: to understand the operating room (OR) inventory practices at a tertiary academic hospital, to mathematically model this process to ascertain service levels based on changes in inventory and demand, and to define the appropriate level of reusable inventory for open and laparoscopic colorectal surgery.

Methods: We retrospectively reviewed OR throughput for all cases of colorectal cancer from January 1, 2010, to January 31, 2011. The process flow of OR instrumentation was studied to understand delays in the provision of inventory. Combining total surgeries performed with surgeon-specific instrument preferences generated daily instrument demand. We fitted parametric demand distributions for two instrument sets for major colon resections. Markovian models were used to estimate the distribution of available inventory and the likelihood of insufficient instruments on any given day.

Results: We reviewed 1,458 cases, 39.5% of which involved major open surgery, whereas 26.2% involved laparoscopic surgery. Demand for open and laparoscopic instrument sets was observed to fit binomial (20, 0.15) and Poisson (1.41) distributions, respectively. On the basis of these curves, we estimated the probability distribution of the in-stock inventory and, subsequently, the probability that demand would exceed supply on any given day (Table 1). In particular, with 10 open and six laparoscopic sets currently owned by the institution, the probabilities that there would be insufficient inventory were 3.02% and 2.17%, respectively.

Conclusion: This analysis will guide purchasing decisions based on desired service levels and forecasted changes in demand. Furthermore, by ensuring that demand is being serviced, this analysis will help to curb loss of revenue, decrease wait times, and limit potential patient morbidity. Strategic purchasing can also reduce excessive inventory and therefore minimize shrinkage and obsolescence and increase working capital and institutional flexibility.