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Financial Impact of Applying Modified NICE/ASA Guidelines to Current Practice for Preoperative Testing

Primary Author: Somdatta Gupta MD
Rutgers NJMS

Co-Authors: Alex Bekker, MD, PhD; Lawrence Chinn, MD; Ralph Iadarola; Safia Amatullah;

Introduction:

Current literature supports the benefits of a pre-anesthesia evaluation which will emphasize patient tailored testing. This is in contrast to the routine standardized protocols of preoperative exams that are still common practice in many institutions. The National Institute of Health and Care Excellence (NICE), as well as the American Society of Anesthesiologists (ASA) have published a number of pre-anesthesia evaluation practice advisories which accentuate the patient-centered approach. We adapted these guidelines in our own institution in September 2016, so that the in/out process in the pre-admission evaluation unit could be streamlined, and therefore, unnecessary expenses could be reduced. The objective of this presentation is to assess the financial implications of implementing the NICE/ASA algorithm in the University Hospital.

Methods:

The cumulative laboratory charges in our Pre-admission testing (PAT) clinic from January to May 2016 were used to compute the average monthly expenditure. Only the tests done within 30 days of surgery were included. This data was the benchmark against which we compared each subsequent month after incorporating the changes. The new PAT guidelines were in effect from mid-September 2016 (ongoing). In addition, our executive committee ensured that this information was conveyed to all of the surgical services in the hospital, thereby ensuring that preoperative testing would be ordered only by eligible personnel from the PAT division of the Anesthesiology department, and not the individual specialties.

Results:

The monthly average cost of preoperative tests during January â€“ May 2016 was $33,333, and the average cost per patient during that time was $172.70. As a direct result of the application of these new guidelines during mid-September 2016-January 2017, the average cost of testing dropped to $16,962 per month, and to $83.89 per patient. This indicates an average monthly savings of $16,371, which projects to an annual savings of $196,445. This stands as a savings of 49.1% compared to the benchmark. The actual savings during this period of 5 months was $102,456. Moreover, by utilizing the patient-centered assessment, the average number of patients seen in the PAT clinic who required any preoperative tests declined significantly from 231 to 193 per month (16.5%).

Discussion:
Our results indicate that approximately 25% of previously ordered tests were not justifiable (e.g. urinalysis for a carpal tunnel surgery, Chest X-ray for arthroscopy, etc.) and could be eliminated by adhering to the NICE/ASA guidelines. This change in practice has led to a significant savings (approximately $17,000/month) due to the reduced number of tests per patient, as well as the decrease in the number of patients that require tests. A dedicated executive committee maintained the threads of communication, as well as provided a frequent re-assessment of the processes in order to reinforce, modify and improve PAT operation. The elimination of many of these routine tests did not alter clinical outcomes; indeed, it served to enhance the patient’s satisfaction by reducing time spent in the PAT.

Conclusion:

As a direct consequence of implementing ASA/NICE guidelines to our pre-admission testing practice, we achieved an actual savings of $102,456 over a period of 5 months, which amounts to a 49% reduction in hospital expenditure in comparison to the pre-implementation cost. The result attests to the importance of incorporating evidence-based guidelines within clinical practice.

References:

Practice Advisory for Pre-anesthesia Evaluation: An Updated Report by the American Society of Anesthesiologists Task Force on Pre-anesthesia Evaluation (March 2012)
