What's New in the Patient Safety World

Another Procedure to Avoid Late in the Day or on Weekends

Add yet another procedure to the growing lists of procedures you don't want done late in the day or on weekends. In our October 2014 What's New in the Patient Safety World column "What Time of Day Do You Want Your Surgery?" we discussed issues related to laparoscopic cholecystectomies done after hours. In our September 2009 What's New in the Patient Safety World column "After-Hours Surgery – Is There a Downside?" we discussed adverse outcomes associated with doing certain types of orthopedic surgery after hours. We think the issues raised are significant to almost every type of surgery and probably other procedures as well.

So it should come as no surprise that some non-emergent procedures done in the cath lab or OR might also be problematic. Hsu and colleagues (Hsu 2014) demonstrated in a large, real-world population, that implantable cardioverter-defibrillator (ICD) recipients implanted in the afternoon/evening and on weekends/holidays more often experienced adverse events, particularly prolonged hospital stays. Those patients implanted in the afternoon or evening had an 8% higher likelihood of any complication and 29% higher likelihood of a prolonged hospital stay. In-hospital death, however, was not increased.

In our previous columns noted above (and the full list is at the end of today's column) we've discussed many of the factors contributing to problems for cases done after hours or on weekends. Hsu and colleagues acknowledge that implantable cardioverter-defibrillator procedures performed later in the day and on weekends/holidays may be associated with adverse events due to a variety of factors including operator fatigue, handoffs, reduced staffing, and limited resource availability.

But keep in mind that this was not a randomized controlled trial. Rather it was a retrospective review of a real-world population. Even though they adjusted their analysis for a variety of factors, it is conceivable that there may be unrecognized patient-related factors that led to cases being done late in the day.

Some of the contributory factors may not be modifiable. However, others may be. For example, if the cardiac electrophysiologist or surgeon doing the implant perceives difficulty scheduling the procedure for the following morning (or has a conflict with his/her own schedule that next morning) he/she may push to do the procedure late on the current day. Maintaining scheduling flexibility to accommodate such cases the next day may be an important system fix.

Take a look at the experience with ICD implantation at your own hospital. Because Hsu's data came from the National Cardiovascular Data Registry-ICD RegistryTM you'll likely find similar patterns at your hospital.

Some of our previous columns on the "weekend" and "after hours" effects:

• February 26, 2008 "Nightmares....The Hospital at Night"

• December 15, 2009 "The Weekend Effect"

• July 20, 2010 "More on the Weekend Effect/After-Hours Effect"

• October 2008 "Hospital at Night Project"

• September 2009 "After-Hours Surgery – Is There a Downside?"

• December 21, 2010 "More Bad News About Off-Hours Care"

June 2011 "Another Study on Dangers of Weekend Admissions"

September 2011 "Add COPD to Perilous Weekends"
August 2012 "More on the Weekend Effect"

• June 2013 "Oh No! Not Fridays Too!"

• November 2013 "<u>The Weekend Effect: Not One Simple Answer</u>"

August 2014 "<u>The Weekend Effect in Pediatric Surgery</u>"

• October 2014 "What Time of Day Do You Want Your Surgery?"

References:

Hsu JC, Varosy PD, Parzynski CS, et al. Procedure Timing as a Predictor of In-Hospital Adverse Outcomes from Implantable Cardioverter-Defibrillator Implantation: Insights from the NCDR®. Amer Heart J 2014; Published Online: October 25, 2014 http://www.ahjonline.com/article/S0002-8703%2814%2900612-7/abstract



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