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Patient Safety Tip of the Week

May 17, 2022

Patient Harm in Medicare Inpatients

Back in 2010, a report from the Inspector General of U.S. Health and Human Services (Levinson 2010) found that 27% of Medicare patients hospitalized in 2008 had either an "adverse event" or a "temporary harm event" and that 44% of these were potentially preventable. That report was an eye opener for many.

Fast forward 10 years and not much has changed. The just released OIG report (Grimm 2022) found that 25% of Medicare patients hospitalized in 2018 had either an "adverse event" or a "temporary harm event" and that 43% of these were potentially preventable.

Adverse events were defined as events that led to longer hospital stays, permanent harm, life-saving intervention, or death. Twelve percent of hospitalized Medicare patients experienced an adverse event in the current study. Temporary harm events were defined as those events that required intervention but did not cause lasting harm, prolong hospital stays, or require life-sustaining measures. Thirteen percent of hospitalized Medicare patients experienced a temporary harm event in the current study.

The study was based on a sample of 770 Medicare patients discharged from acute care hospitals in October 2018. Nurses used a trigger tool (a modified version of IHI's global trigger tool) to identify adverse events and temporary harm events. Physician reviewers then determined whether an identified event was potentially preventable.

Events related to medications were the most frequent (43%), followed by other patient care (23%), surgery (22%), and infections (11%).

Notably, HAC's or hospital-acquired conditions, which have traditionally been the most reported events by CMS, accounted for only a small fraction of the events reported in the current study. Of the harm events identified in the current study, only 5 percent were on CMS's HAC Reduction Program list and only 2 percent were on CMS's Deficit Reduction Act HAC list.

In our February 2012 What's New in the Patient Safety World column "OIG: Hospitals Fail to Report Most Cases of Harm" we cited another report by the OIG (Levinson 2012) which found that, although all hospitals have incident reporting systems and other

systems to identify adverse events, only 14% of hospital adverse events get reported. The commonest reasons given for lack of reporting were that the event was not related to an "error" or the event was considered to be an expected outcome or expected adverse event or that any harm involved was considered to be minor or temporary or simply that the hospital had no master list of reportable events. As in all studies of incident reporting, most reports are done by nursing, and physicians seldom report adverse events. About a quarter of the adverse events were ones usually reported but were not reported in this instance.

CMS, of course, is interested not only in the human toll related to harm events but also in the costs incurred by Medicare as a result of these events. The report estimated the costs for all events (preventable or non-preventable) to be in the hundreds of millions of dollars for October 2018.

The report suggests that the current Medicare event reporting needs to be reformed. It notes that the physician reviewers determined that 56 percent of harm events were not preventable and occurred even though providers followed proper procedures. The overall harm rate would be 13 percent if only events determined were preventable were included. As such, the report recommends that CMS update and broaden its lists of HAC's to capture common, preventable, and high-cost harm events.

The report also recommends CMS explore expanding the use of patient safety metrics in pilots and demonstrations for health care payment and service delivery. It also recommends that CMS develop interpretive guidance to surveyors for assessing hospital compliance with requirements to track and monitor patient harm. It also had several recommendations for AHRQ on promoting patient safety.

There has been considerable controversy over the years about the exact frequency of harm related to medical care. We've discussed this in our August 2019 What's New in the Patient Safety World column "How Often Do Preventable Errors Occur?" and the other columns listed below. Bottom line: regardless of the exact number, there are simply too many. Most bothersome is the fact that there has been little change in the CMS findings 10 years after their first report.

How dangerous is a day in the hospital? For many years, we have used the numbers from a study done by Lori Andrews et al. (Andrews 1997) that found you have a 6% chance per inpatient day of having an adverse event that could impact your health. A study (Hauck 2011) quantified the risk even further. Using a large database from public hospitals in Australia, the authors calculated that the average hospital stay carries a 5.5% risk of adverse drug reaction, 17.6% risk of infection, and 3.1% risk of pressure ulcers. Moreover, each additional night in the hospital increases the risk by 0.5% for adverse drug reactions, 1.6% for infections, and 0.5% for pressure ulcers.

So, got all those numbers? You'll forget them and those in the current OIG report shortly. You've often heard us use the phrase "Stories, Not Statistics" (see our December 2009 What's New in the Patient Safety World column "Stories, Not Statistics"). When we first

began doing presentations on patient safety in the early 1990's we often began with some of the statistics on medical error from Lucien Leape's work. But we began to notice physicians and medical students begin to zone out when we talked about statistics on medical error. What got their attention were the anecdotes we would tell about cases that really happened. So, we changed our focus. While we still often show statistics on medical error to put things in context, we no longer highlight them. Instead, we really rely on the stories. That's what makes people say "I wonder if that could happen here?" and what makes them go back to look at the systems in their health care systems. It is those stories that hit home hard and make people remember. Who cannot remember their own reactions when they first heard the Josie King story, or the story about the nurse who administered Bicillin intravascularly, or the little boy who died from concentrated epinephrine injection during a simple surgical procedure, or any nurse who inadvertently administered concentrated potassium solutions? Or the recent tragic events related to inadvertent administration of a neuromuscular blocking agent (NMBA) that led to the conviction of a nurse for negligent homicide (see our April 12, 2022 Patient Safety Tip of the Week "A Healthcare Worker's Worst Fear")?

In fact, the lack of compelling stories like these is the prime reason we feel IOM's "To Err is Human: Building a Safer Health System" failed to gain traction despite considerable initial media attention. Everyone focused on the statistics from that report. It lacked the stories about real people you need to tell in order to get people and systems to change.

The current CMS report does have several "patient stories" and an appendix that provides brief examples of some of the harmful events found in their sample. But these have such limited detail that they do not tell compelling stories. We've always felt that the failure to share root cause analyses and lessons learned from significant healthcare incidents has been the biggest barrier to improving patient safety. PSO's have yet to live up to their potential to share such lessons and, even then, they only share among their members Thus, those lessons reach only a tiny fraction of healthcare organizations that could benefit from sharing.

See some of our prior columns on the frequency of harmful medical errors:

- May 2011 "Just How Frequent Are Hospital Medical Errors?"
- February 2012 "OIG: Hospitals Fail to Recognize Most Cases of Harm"
- March 2012 "How Dangerous is a Day in the Hospital?"
- October 2013 "How Many Deaths Result from Medical Errors?"
- August 2019 "How Often Do Preventable Errors Occur?"
- August 13, 2019 "Betsy Lehman Center Report on Medical Error"

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