Forum

To the editor:

The article entitled "Set the clock for OR on-time starts" in the March 2009 issue includes an account of impressive process improvements at Memorial University Medical Center (MUMC) in Savannah, Georgia. I am surprised, however, that "the hospital didn't have a way to specifically measure the results in financial terms." After all, the article also states that a business analysis of the situation before the project was undertaken "showed significant loss of revenue from late starts ($1.7 million in 2006)." If the hospital was experiencing a loss in revenue, one would presume that late starts were forcing a reduction in the number of cases that could be scheduled. If that was indeed the case, then it should have been possible to measure the increase in case volume as first-case-start performance improved.

If, on the other hand, the presumed $1.7 million dollar "loss of revenue" was calculated by multiplying the number of minutes of delay by the average cost of an OR minute, then the potential financial benefits were incorrectly estimated. Here's why: Saving a few minutes here and there doesn't translate into a financial impact unless cases are added or staff is eliminated. It's possible there was some reduction in overtime at MUMC, but it's likely to have been minor. I estimate that the average lateness of the first cases was reduced by about 10 to 20 minutes, not enough to make a substantial dent in overtime payments. Perhaps that's why no financial impact was observed.

Working to improve first-case-start performance is a popular improvement project, but it may not represent wise investment of a hospital's resources. Start with the popular metric for assessing improvement: "percent on-time starts." While the metric sounds "right," it fails to provide a complete picture of the improvement.

A more useful metric

A more useful metric is "average minutes late." It affects directly the expected duration of the day's schedule, which is the sum of the expected values of all the time intervals, including the delay at the beginning of the day.

Unfortunately, most projects aimed at improving first-case-start performance are probably not as successful as the one at MUMC. They likely save no more than 15 minutes of a day's schedule, thus making little impact on a hospital's overtime payments.

Hospitals could realize much greater financial benefits by working to reduce nonoperative times between short cases, as noted in our 2008 article (see reference). By doing so, they might be able to routinely add a short case. Since one additional short case produces an incremental margin improvement of about $2,000, doing so every day offers the potential to improve the bottom line by $500,000 annually. But even this route to financial improvement must be carefully examined before launching an effort to reduce non-operative times. The hospital must expect to grow its load of short cases to capitalize on the "found" capacity, or it must plan to close one or more operating rooms and reduce staffing levels. ❖

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Reference

Krupka, D C, Sathaye S, Sandberg, W S. Reducing non-operative time: methods and impact on operating room economics. *Int J Healthcare Technol Manage.* 2008. 9(4): 325-352.