On-time incentives for anesthesiologists

Giving anesthesiologists individual monthly reports on their on-time performance and paying a small financial prize helped Vanderbilt University Medical Center in Nashville, Tenn, make significant improvements in its on-time starts for first cases of the day and anesthesia prep time, a study has shown.

“Our hypothesis was that with the proper incentives—the reporting and a small financial prize—we could encourage our attending staff to really drive the process of getting the patients into the room on time,” says Paul St Jacques, MD, director of anesthesiology informatics at Vanderbilt, who led the study.

He and his colleagues tracked anesthesiologists’ performance on 5 indicators, both at 1 month to establish a baseline and at 6 months after the program began (sidebar).

Some dramatic results

Results were dramatic for 2 indicators.

On-time starts for first cases of the day jumped by 42%, from 19% to 61% during the study period from Sept 1, 2002, to Feb 28, 2003.

The percentage of cases with an anesthesia prep time less than the target of 15 minutes rose from 57% to 73%.

Also improved was the mean number of anesthesiology-controlled time delays during induction or emergence, from 15% to 3%.

The 2 other indicators didn’t improve significantly. These were delays due to waiting for an anesthesia patient evaluation and delays due to waiting for an anesthesiology attending.

The results showed attending physicians really can make a difference “as cheerleaders for getting patients in the room on time,” Dr St Jacques notes.

Behavior shifted more toward anesthesiologists asking, “What do I need to do to get the patient in the room? Do we need to start an IV? Do we need to get the antibiotics going?

“We have found the incentives work,” he says.

Monthly reports

Each month, each of the participating anesthesiologists receives a report with graphs showing how he or she did on each of the indicators. The 20% top performers on each indicator receive $100, which goes into the anesthesiology department’s continuing education fund.

The program has continued since the study ended. Though there has been some drop-off in performance, “we still have a significant portion of the gains,” Dr St Jacques says.

The indicators were developed by a focus group of clinicians and managers who discussed which on-time factors were most important to surgeons.

The data is collected using Vanderbilt’s perioperative information system, which was developed in house. On each case, the circulating nurse and anesthesiologist collect specific time elements using a touch-screen button. Time elements entered by the circulating nurse populate the anesthesiologist’s screen and vice versa. There also are fields for entering reasons for delays. Circulating nurses use judgment in entering whether there are anesthesiologist-related delays in patient evaluation, excessive induction or emergence time, or an attending being unavailable. For example, during induction, did it take too long to put in an arterial line, or was the time necessary for clinical reasons?

The information system generates monthly reports, which are distributed through the divisions in the anesthesia department.

How has the on-time project helped the ORs improve?
Though time savings haven’t been enough to get extra cases on the schedule, Dr St Jacques notes, “we do believe the start of the day is critical to the rest of the day. Once you have a couple of delays, the system really never gets firing on all cylinders. But once you incentivize one group to move things along, it seems the rest of the system greases itself.”

Improving first-case starts has helped reduce overtime. It also is one reason why Vanderbilt has been able to accommodate a growing volume of 7% to 9% a year without adding more ORs.

The cost of the incentives, which amounts to a couple of thousand dollars a month, has been borne by the anesthesia department.

Anesthesiologists’ reactions have been positive, Dr St Jacques says. The only major complaint is that some would like to see the monthly reports produced faster. Also, some felt anesthesiologists who do more complex cases are at a disadvantage in meeting the 15-minute anesthesia prep time target. That indicator has been replaced with one for chart completion.

How could the results be applied in facilities that can’t afford financial incentives?

“I think the most important thing is to have data available and provide the data back to the practitioners,” Dr St Jacques says.

“People really do want to perform well and do a good job. Most people in our world are competitive. They not only want to do well, they want to be the top dog. Just by providing the data, we feel there is a significant effect.”

Ideally, the data would be collected through an information system so the information can be analyzed and reports produced electronically.

“I think any OR could benefit from that,” he says. ♦

Reference

### Indicators tracked during study period

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>Percentage of first cases of the day in the room on time</td>
<td>&gt; 90%</td>
<td>First case of the day for each OR, patient in the OR at or before scheduled start time</td>
</tr>
<tr>
<td>Anesthesia prep time less than 15 minutes</td>
<td>&gt; 90%</td>
<td>Time from patient in room to anesthesia team turnover to surgical team for positioning and preparation for surgery</td>
</tr>
<tr>
<td>Percentage of cases delayed due to waiting for an anesthesiology patient evaluation</td>
<td>&lt; 10%</td>
<td>Circulator nurse judgment that case progress was delayed by the need to wait for completion of an anesthesiology patient evaluation that could have been completed in a manner not to delay the OR</td>
</tr>
<tr>
<td>Percentage of cases delayed during anesthesia controlled time</td>
<td>&lt; 5%</td>
<td>Circulator nurse judgment that case progress was delayed by inappropriately excessive anesthesia procedure, induction, or emergence time</td>
</tr>
<tr>
<td>Percentage of cases delayed due to waiting for the anesthesiology attending</td>
<td>&lt; 5%</td>
<td>Circulator nurse judgment that case progress was delayed by inappropriate waiting for the presence of the anesthesiology attending</td>
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