Minnesota’s hospitals and surgery centers are taking lessons from state reporting on adverse events to make surgery safer. They are fine-tuning protocols for preventing wrong-site surgery and retained foreign bodies.

In January, the state issued its third annual public report on adverse events, which tallies errors from hospitals, ambulatory surgery centers, and treatment centers. The report includes the types of errors and the hospitals where they occurred.

The number of reports was up—154 in 2006 compared with 106 in 2005. Minnesota’s Commissioner of Health, Dianne Mandernach, says that is a sign the system is working.

“Minnesota’s facilities are looking harder for reportable events, and that’s a positive step,” she said.

Wrong-site reports rose slightly, from 19 to 23, while the number of retained foreign objects jumped from 26 to 42.

More awareness and better reporting are probably behind the increase in retained-object reports, notes Alison Page, MS, MHA, chief safety officer for the Twin Cities-based Fairview Health System. More facilities realize they need to report sponges left in after vaginal delivery, for example. About 40% of retained-item reports involved labor and delivery sponges, compared with 15% in the first report.

There’s a shift in wrong-site procedures. In the new report, 50% occur outside the OR, in procedures such as nerve blocks. In the first report, 90% were in the OR.

The proportion of events causing death or serious disability was about the same as the previous year—20%.

There was 1 death from a retained foreign body. The circumstances were not disclosed.

The most frequently reported event overall was a Stage 3 or 4 pressure ulcer.

The events are rare. In 2005, Minnesota hospitals reported more than 2.7 million patient days and saw nearly 8 million outpatients. Ambulatory surgery centers treated more than 150,000 patients.

Under the Minnesota law, signed in 2003, all of the state’s hospitals, ambulatory surgery centers, and regional treatment centers must report to the state 27 types of “never events.” These are events identified by the National Quality Forum as ones that should never happen to patients.

Lessons learned

A group of 10 Twin Cities-area hospital systems called Safest in America has used the state’s report to develop and fine-tune a protocol for surgical site verification. A new protocol for preventing retained foreign bodies is planned for release this spring.

The surgical site protocol has just gone through its third update, based on the new data and reports from the literature. Safest in America visits each member hospital that has a wrong-site error to learn what happened and why.

“Each year we have strengthened it. This is a living, breathing document,” says Dana Langness, RN, BSN, MA, leader of the protocol work group.

Safest in America says the protocol is consistent with the Joint Commission’s Universal Protocol for site verification, though it is more specific in some respects.

**Minnesota adverse events**

<table>
<thead>
<tr>
<th>Event Type</th>
<th>2005</th>
<th>2006</th>
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</thead>
<tbody>
<tr>
<td>Total events reported</td>
<td>106</td>
<td>154</td>
</tr>
<tr>
<td>Surgical events</td>
<td>53</td>
<td>74</td>
</tr>
<tr>
<td>Wrong procedure/patient</td>
<td>26</td>
<td>23</td>
</tr>
<tr>
<td>Retained foreign objects</td>
<td>26</td>
<td>42</td>
</tr>
<tr>
<td>Other surgical events</td>
<td>1</td>
<td>9</td>
</tr>
</tbody>
</table>
Protocol updates

The 2007 protocol includes algorithms for preoperative, intraoperative, and bedside site verification outside the OR, as well as sample checklists.

Major updates:

• An alert was added about anatomical variation, which was the source of 2 wrong-site errors in 2006. The protocol says that when a patient is known to have an anatomical variation involving the procedure site, the information will be shared with the care team, and additional steps will be taken to confirm the correct site. This may include additional imaging or a second physician confirming the site.

• A requirement was added for anesthesia providers to confirm the patient’s identity, procedure, and site before local or regional anesthesia. This was another source of errors in 2006. Marking the injection site is not required to avoid confusion with the surgical site mark.

• Site marking must be done with initials by the person performing the procedure. An X is not acceptable. The accountability may not be delegated. “We say the initials of the person performing the procedure will be marked on the site or close to the site of entry,” says Page. “That eliminates any ambiguity.”

Safest in America previously adopted a number of other changes to reinforce safety.

In 2005, the CEOs of Safest in America hospitals agreed to a “hard-stop” policy, meaning the procedure is halted if any part of the verification process is not followed and/or there is a discrepancy in site identification. If the situation cannot be resolved, the procedure is cancelled and rescheduled.

For spinal surgery and other procedures involving levels, the protocol was strengthened to say, “High-quality intraoperative imaging with opaque instruments marking specific bony landmarks will be taken and compared to the preoperative imaging to confirm the correct level/site prior to the procedure.”

Preventing retained items

This spring, Minnesota’s first protocol for preventing retained foreign bodies will be issued. Some areas discussed are:

• making sure a thorough baseline count is completed before the patient comes in the room

• using a whiteboard in the OR to record the count

• after a case, having the nurse check the OR before the next patient comes in to make sure all items from the last case were removed, and the whiteboard was erased

• conducting a formal wound exploration before the incision is closed.

The adverse events report is at www.health.state.mn.us/patientsafety.
The safe site protocol is posted at www.icst.org. For more information, visit www.safestinamerica.org.