ASCs jump on the surgical checklist bandwagon

Since the early days of aviation, pilots have used checklists before, during, and after each flight. Cooks follow recipes. Builders don’t build without team meetings and signoffs at every step.

Health care professionals, however, only recently began to adopt checklists. Often, the excuse has been that medicine is an art, and surgeons might find checklists too confining. Yet it was a surgeon who led the way in developing surgical checklists, and they are saving lives in US hospitals and around the world. Now the surgical safety checklist is taking off in ambulatory surgery centers (ASCs).

Global goals, local efforts

The South Carolina Hospital Association is in the final year of a 3-year project to implement safe surgery checklists in all of its member hospitals, and ASCs are coming on board as well.

Since 2011, AnMed Health Medicus Surgery Center in Anderson, South Carolina, has been using a checklist developed by the World Health Organization (WHO) and endorsed by the Harvard School of Public Health. Harvard is sponsoring a project called Safe Surgery 2015, in which state hospital associations set a goal of 100% participation in the use of surgical checklists by the end of that year. North Carolina and Virginia recently adopted the checklist program.

Teresa DeVore, RN, quality improvement coordinator for the surgery center, worked with the Harvard team to develop an ASC-appropriate checklist and to promote it with other surgery centers.

“We embraced a culture of safety before this project,” DeVore says, “but welcomed the idea of improving through the checklist.”

Heading the Harvard team as executive director is Atul Gawande, MD, FACS, a general surgeon at Brigham and Women’s Hospital in Boston who may be considered the father of the surgical checklist.

In his book, The Checklist Manifesto: How to Get Things Right, he describes working with WHO to improve surgical safety, an effort that included the painstaking development of a checklist that has saved lives in remote areas of developing countries as well as in the wealthiest cities.

Four big killers

“Surgery has, essentially, 4 big killers wherever it is done in the world: infection, bleeding, unsafe anesthesia, and what can only be called the unexpected,” he explains in the book. The first 3, he notes, are perfectly suited to a checklist, which covers routine tasks that, for various reasons, are often forgotten. The unexpected events are complex situations that call for a different approach: the pooling of expertise. The WHO researchers found that the best solution was “to have people stop and talk through the case together.” That meant clinicians, including surgeons, would have to operate as a team.
Dr Gawande confesses that as a surgeon he was skeptical of the need for these precautions.

“To my chagrin, however,” he writes, “I have yet to get through a week in surgery without the checklist’s leading us to catch something we would have missed.”

**Flying right**

To learn how checklists work, Dr Gawande questioned people from other occupations. He watched as they built skyscrapers, managed restaurants, and analyzed investments, and he found that they all used some form of checklist to avoid mistakes.

It was the aviation checklists, however, that provided the most useful model for the surgical checklist. Dr Gawande learned from the Boeing Corporation manager in charge of designing checklists for the company’s aircraft that pilots use many checklists. Some are for routine procedures such as preflight inspections and preparation for takeoff. Others govern emergencies. Each has been tested and revised to ensure it contains the critical steps needed for every situation.

Like aviation, surgery is time-sensitive, technically complex, and performed by highly skilled individuals who must work as a team. Unsurprisingly, surgeons who happen to be pilots appear to be most comfortable using checklists.

DeVore recalls how an AnMed ophthalmologist, after receiving his checklist, became its in-house champion. The physician, a licensed pilot, assembled the surgical team for the time-out, introduced the checklist, and told the surgical technologist to call out the item related to verifying the correct lens implant.

“That was an indication that surgeons were buying into the program,” she says. “It doesn’t matter what your title is. We’re here to work as a team. We’re here to do what’s right for the patient.”

**The WHO trials**

After trials and revisions, the WHO panel that included Dr Gawande field-tested the checklist at 8 hospitals representing different conditions and cultures, in rich and poor countries, and rural and urban locations. Researchers tracked complication rates 3 months before and after introduction of the checklist. Among 4,000 patients, they found that major complications declined overall by 36%, and the death rate dropped by 47%.

“Using the checklist had spared more than 150 people from harm—and 27 of them from death,” Dr Gawande says.

In January 2009, the New England Journal of Medicine published the study results. Hospitals around the world showed interest in the checklist. Actual implementation was slow, however; even when the checklist was available, it was often ignored or skimmed over, studies showed.

“A lot of people say they use it, but very few use it correctly,” explains Lizzie Edmondson, senior project manager of the Safe Surgery 2015 team. After Washington’s hospital association mandated use of the checklist, her team conducted a small study of 5 hospitals and found only 2 had successfully implemented it. Through communication with numerous other hospitals between 2009 and 2010, they found few were using the checklist meaningfully or getting the most out of it.
A national movement

In 2008, Harvard joined the Institute for Healthcare Improvement (IHI) in Cambridge, Massachusetts, to promote the checklist via webinars and hospital trials. The institute proposed a nationwide “Sprint for the Surgical Safety Checklist” by challenging every US hospital to test the checklist at least 1 time with 1 operating team before April 1, 2009. As a result, 644 hospitals reported having tested the checklist.

In 2010, Safe Surgery 2015 began a program of implementation. South Carolina was the first state selected, Edmondson says, because its hospital association had already contacted Harvard to express interest.

The goal of the project is to learn how best to implement the checklist and then to use that knowledge to help other states. DeVore also is working with the Safe Surgery 2015 team to help Edmondson and others from Harvard promote the checklist via webinars and site visits.

Support for ASCs

While the emphasis so far has been on hospitals, the Safe Surgery 2015 group has received a grant from the Agency for Healthcare Research and Quality to expand the checklist program to ASCs. Partners in this project include the South Carolina Hospital Association, IHI, the ASC Quality Collaboration, and the Ambulatory Surgery Center Association. The group began meeting in October 2012 with the goal of rolling out the ASC program in March.

‘Poster child’

Meanwhile, AnMed has become the poster child—literally—for checklist use. A huge poster graces the wall in each of the 3 ORs.

As part of the South Carolina project, Harvard invited ASCs to use the checklist. While all users are expected to modify the WHO checklist to fit their circumstances, ASCs may need to make more adjustments than hospitals.

“You know how fast-paced ASCs are,” DeVore notes.

Most of the surgeons at AnMed were skeptical at first, partly because they feared checklists would delay procedures. But their number 1 objection was “they didn’t see a need for the checklist,” DeVore says.

She modified the checklist to minimize the OR time it would require. The first portion, which covers patient information, is completed in the preop area. She also consulted with the administrator and the medical director to obtain their support. “They helped me market it to the surgeons.”

Speak up!

Since implementing the checklist, DeVore continues to monitor progress and publish the results internally.

“The staff celebrates every success—every time the checklist was able to help avoid a potential error,” she says.

To counter any doubt that the checklist is meant to be a team effort, the final item on the preincision portion has the surgeon state, “If you see something that concerns you during this case, please speak up.”

As Edmondson notes, there is a big difference between formal adoption of a checklist and its meaningful use. The Harvard goal of adoption in all 50 states by 2015 may be met, but achieving AnMed’s level of commitment everywhere is another matter.

One motivator may be the requirement by the Centers for Medicare and Med-
icaid Services for use of a checklist. Beginning July 1, 2013, use of checklists at ASCs during 2012 will be a reportable quality measure that will affect Medicare payments starting in 2015.

Edmondson would like clinicians to embrace the checklist for a different reason: It will benefit not only patients but also their work environment.

“We’ve seen it change the culture,” she says. “It gives people a voice. If they see something that’s about to go wrong, they can voice their concern. It’s a team-building exercise, if used effectively.”

—Paula DeJohn

The South Carolina Ambulatory Surgery OR Checklist with all 3 phases is in the OR Manager Toolbox at www.ormanager.com.

References