

What's New in the Patient Safety World

June 2017

Another Way to Verify Checklist Compliance

Checklists are great tools for helping ensure that important steps in a variety of patient safety activities are not missed. But checklists are only as good as the degree to which they are complied with, as exemplified in our May 2, 2017 Patient Safety Tip of the Week “[Anatomy of a Wrong Procedure](#)”.

We've often noted that most facilities have no idea whether their Universal Protocol or Surgical Safety Checklist is being used well. That is because they don't audit compliance with its use. Even those that think they have good compliance usually rely on self-reporting rather than more objective measurements. We recommend direct observation or use of video recording as ways to assess compliance. The former is obviously subject to the Hawthorne effect. The latter is more effective but many physicians and OR personnel have objected to video recording and few OR's use it today.

A third way is to use simple audio recording. While audio recording may miss some of the “body language” aspects that may provide important details about communication in the OR, it may still provide insight into how well OR teams are complying with the checklists. A recent study reported use of such an audio audit of use of a Surgical Safety Checklist at a US hospital ([Salgado 2016](#)). Whereas a compliance rate was previously reported as 97.6%, the audio-recorded audits revealed a precisely executed checklist only 73.6% of the time.

The Salgado article is useful not only for details about the method of recording but also for the checklist scoring system they developed.

Note that their version of the WHO Surgical Safety Checklist was modified for their own use, as is strongly recommended for any facility using the checklist. So some items on their checklist audit tool may differ from those you might audit at your facility. They audited items from all 3 components of the Surgical Safety Checklist (pre-procedure, just before skin incision or start of procedure, and post-procedure before patient leaves the OR).

Audit of the middle section of the checklist (just before skin incision or start of the procedure) revealed suboptimal compliance with two key items we have stressed before. Confirmation of the procedure with the consent form was only completed in 69% of audited cases. And asking whether essential imaging was required was completed in only

81% of audited cases. We found it somewhat surprising that the question about whether antibiotic prophylaxis has been given within the last 60 minutes was only completed in 80% of audited cases. On the other hand, we were pleased to see that this facility included a question about letting the alcohol prep dry before draping and that compliance with this item was 89%. We were also glad to see the item addressing anticipated surgical specimens and tests was completed in 94% of cases. The item asking whether venous thromboembolism prophylaxis is needed is also a question we think is important (though we usually recommend it as an item to be discussed during the pre-op huddle) but this item was only completed in 55% of audited cases.

Regarding the pre-procedure portion of the checklist, compliance was pretty good regarding the anesthesia check, medication check, and pulse oximetry items. Risk of hypothermia was formally completed in only 52%. The “site marked” item was complete in only 56%. That sounds awfully low, but it is not clear whether this is adjusted for those cases in which site marking is not indicated (eg. bilateral procedures).

Compliance with the post-procedure portion of the checklist was, in general, poor. Several items are of particular concern. One is that labeling of specimens was completed as an item in only 34% (it is not clear from the article whether this might reflect that specimens were not taken in some cases). And only 43% of cases completed the item asking if instrument, sponge and needle counts were complete. And only 22% asked whether any equipment problems needed to be addressed.

They were also able to identify some barriers to communication, such as distractions. Those identified included personal conversations, staff changes, and room setup noise as major distractors. The researchers also looked at whether “quiet” was requested for various parts of the checklist and whether “quiet” was actually achieved. “Quiet” was actually achieved in less than 50% for each section of the checklist and for only 20% for the post-procedure period.

Note that the Surgical Safety Checklist used by Salgado et al. asked for confirmation of the procedure with the informed consent. It did not require confirmation with the H&P. We feel that requiring the latter is equally important since informed consents are not without problem (see our September 10, 2013 Patient Safety Tip of the Week “[Informed Consent and Wrong-Site Surgery](#)”). And, as discussed in our May 2, 2017 Patient Safety Tip of the Week “[Anatomy of a Wrong Procedure](#)”, it is critical that all participants have actually looked at these primary source documents (the consent and the H&P).

You should refer to the actual article for a description of the audio recording protocol.

The Salgado study is an excellent contribution to patient safety. Every facility should be auditing compliance with their checklists and both the audio format and the scoring tool developed by these researchers could be adapted to almost any facility. We also suspect that the results found in their audit are probably pretty representative of what the majority of facilities will find when they do their own audit.

Some of our prior columns related to wrong-site surgery:

September 23, 2008	“Checklists and Wrong Site Surgery”
June 5, 2007	“Patient Safety in Ambulatory Surgery”
July 2007	“Pennsylvania PSA: Preventing Wrong-Site Surgery”
March 11, 2008	“Lessons from Ophthalmology”
July 1, 2008	“WHO’s New Surgical Safety Checklist”
January 20, 2009	“The WHO Surgical Safety Checklist Delivers the Outcomes”
September 14, 2010	“Wrong-Site Craniotomy: Lessons Learned”
November 25, 2008	“Wrong-Site Neurosurgery”
January 19, 2010	“Timeouts and Safe Surgery”
June 8, 2010	“Surgical Safety Checklist for Cataract Surgery”
December 6, 2010	“More Tips to Prevent Wrong-Site Surgery”
June 6, 2011	“Timeouts Outside the OR”
August 2011	“New Wrong-Site Surgery Resources”
December 2011	“Novel Technique to Prevent Wrong Level Spine Surgery”
October 30, 2012	“Surgical Scheduling Errors”
January 2013	“How Frequent are Surgical Never Events?”
January 1, 2013	“Don’t Throw Away Those View Boxes Yet”
August 27, 2013	“Lessons on Wrong-Site Surgery”
September 10, 2013	“Informed Consent and Wrong-Site Surgery”
July 2014	“Wrong-Sided Thoracenteses”
May 17, 2016	“Patient Safety Issues in Cataract Surgery”
July 19, 2016	“Infants and Wrong Site Surgery”
September 13, 2016	“Vanderbilt’s Electronic Procedural Timeout”
May 2017	“Another Success for the Safe Surgery Checklist”
May 2, 2017	“Anatomy of a Wrong Procedure”

Some of our prior columns on checklists:

- June 5, 2007 [“Patient Safety in Ambulatory Surgery”](#)
- July 24, 2007 [“Serious Incident Response Checklist”](#)
- March 11, 2008 [“Lessons from Ophthalmology”](#)
- July 1, 2008 [“WHO’s New Surgical Safety Checklist”](#)
- September 23, 2008 [“Checklists and Wrong Site Surgery”](#)
- November 18, 2008 [“Ticket to Ride: Checklist, Form, or Decision Scorecard?”](#)
- November 25, 2008 [“Wrong-Site Neurosurgery”](#)
- January 20, 2009 [“The WHO Surgical Safety Checklist Delivers the Outcomes”](#)
- January 19, 2010 [“Timeouts and Safe Surgery”](#)
- June 2010 [“WHO Checklist for Radiological Interventions”](#)
- June 8, 2010 [“Surgical Safety Checklist for Cataract Surgery”](#)
- July 6, 2010 [“Book Reviews: Pronovost and Gawande”](#)
- September 14, 2010 [“Wrong-Site Craniotomy: Lessons Learned”](#)
- November 30, 2010 [“SURPASS: The Mother of All Checklists”](#)
- December 6, 2010 [“More Tips to Prevent Wrong-Site Surgery”](#)

- February 2011 “[SURPASS Checklist Reduces Malpractice Claims](#)”
- March 2011 “[Michigan ICU Collaborative Wins Big](#)”
- June 6, 2011 “[Timeouts Outside the OR](#)”
- August 16, 2011 “[Crisis Checklists for the OR](#)”
- July 2012 “[VA Checklist Reduces Suicide Risk](#)”
- July 2012 “[WHO Safe Childbirth Checklist](#)”
- October 2012 “[Another PCA Pump Safety Checklist](#)”
- February 2013 “[Checklists for Surgical Crises](#)”
- April 2014 “[Checklists Don’t Always Lead to Improvement](#)”
- May 2015 “[The Great Checklist Debate](#)”
- August 25, 2015 “[Checklist for Intrahospital Transport](#)”
- September 1, 2015 “[Smarter Checklists](#)”
- September 15, 2015 “[Another Possible Good Use of a Checklist](#)”
- September 13, 2016 “[Vanderbilt’s Electronic Procedural Timeout](#)”
- November 2016 “[Oxygen Tank Monitoring](#)”
- May 2017 “[Another Success for the Safe Surgery Checklist](#)”
- May 2, 2017 “[Anatomy of a Wrong Procedure](#)”

References:

Salgado D, Barber KR, Danic M. Objective Assessment of Checklist Fidelity Using Digital Audio Recording and a Standardized Scoring System Audit. Journal of Patient Safety 2016; Published Ahead of Print Post Author Corrections: November 2, 2016
http://journals.lww.com/journalpatientsafety/Abstract/publishahead/Objective_Assessment_of_Checklist_Fidelity_Using.99569.aspx



The
Truax
Group
Healthcare Consulting
www.patientsafetysolutions.com

<http://www.patientsafetysolutions.com/>

[Home](#)

[Tip of the Week Archive](#)

[What's New in the Patient Safety World Archive](#)