Creating and Using a Safe Surgery Checklist

Michelle George, VP Clinical Services at Surgical Care Affiliates
Linda Lansing, SVP Clinical Services & Training at Surgical Care Affiliates
Discussion Outline

1. Welcome
2. Overview
3. Regulatory and Accreditation Requirements
4. Checklist Development
5. Checklist Implementation
6. Closing Thoughts
7. Questions
The Origins of the Checklist

- 1930s aviation—technology considered too complicated for the pilots

- Experience that showed the person with the most experience not always the one with the best results

- Checklists developed by pilots to ensure critical steps were not missed

- Focused on correcting mistakes or defects before they happened

- Drove improvement

- Spawned many federal agencies—FAA, NTSB
Thoughts from Atul Gawande—The Checklist Manifesto

• The professional Code of Conduct
  – Selflessness—place the needs of others above ours
  – Skill—aim for excellence in regards to knowledge and skill
  – Trustworthiness—responsible for personal behavior with others

• Aviators add another dimension
  – Discipline—following prudent procedure when working with others

• Medicine focuses on autonomy
  – Direct opposition to discipline

• In the current medical environment of increasingly complicated technology, autonomy does not seem to be what we should focus on
Why Use a Checklist?

• The more complex a procedure is, the more opportunities there are to miss a critical step

• Checklists work because they point out missed steps or problems that may have been overlooked secondary to our own sense of familiarity with the procedure

• No matter how expert we are, a well-designed checklist has been proven to improve outcomes

• It is the right thing to do for our patients
Safe Surgical Checklist Impact

• Usage
  – Successfully adapted in a wide variety of settings and countries
  – Third phase most frequently incomplete
  – Steps related to time out components missed
  – High compliance with items already in established policy; lower compliance with new items
  – Adoption rates stronger with nurses and anesthesiologists vs. surgeons
  – Customization and training critical to adoption rates

• Patient outcomes and communication
  – “Promising intervention” for decreasing patient morbidity and mortality
  – Increased detection of potential safety hazards
  – Decreased surgical complications
  – Improved communication among OR staff
  – Other factors may contribute to improvements

• Impact hinges on implementation process—understanding why and how
Medicare Reporting Requirements

• Initial reporting via Quality Net (www.qualitynet.org) summer of 2013
  – Attestation of use during any point is 2012
  – Flexibility allowed in design and use of checklist
  – “No” answers do not incur financial penalties but may have public relations or local community implications
  – No validation included in Medicare surveys

• CMS proposed regulations
  – For CY 2016, proposed to alter the data collection and submission time periods for the Safe Surgery Checklist Use and ASC Facility Volume
  – Data collection would be the calendar year occurring 2 years prior to the payment determination year
  – Data submission period would be expanded from July 1 - August 15 to January 1 - August 15 in the year prior to the payment determination
  – If implemented for the CY 2016 payment determination:
    – Data collection period would be DOS January 1, 2014 - December 31, 2014
    – Data submission period would be January 1, 2015 - August 15, 2015
Conditions for Coverage Requirements

Interpretive Guidelines for 42 CFR Section 416.42

• Generally accepted procedures to avoid such surgical errors require:
  – A pre-procedure verification process to make sure all relevant documents (including the patient’s signed informed consent) and related information are available, correctly identified, match the patient, and are consistent with the procedure the patient and the ASC’s clinical staff expect to be performed
  – Marking of the intended procedure site by the physician who will perform the procedure or another member of the surgical team so that it is unambiguously clear
  – A time out before starting the procedure to confirm that the correct patient, site, and procedure have been identified, and that all required documents and equipment are available and ready for use
Medicare Detailed Requirements

Must address effective communication and safe surgery practices in each of the three perioperative periods

• Prior to administering anesthesia
• Prior to incision
• Prior to the patient leaving the operating room
Accreditation Requirements—TJC

Universal Protocol

• UP.01.01.01: Conduct a pre-procedure verification process
• UP.01.02.01: Mark the procedure site
• UP.01.03.01: A time out is performed immediately prior to starting procedures
Accreditation Requirements—AAAHC

Chapter 10. U and Chapter 10. V

• The organization utilizes a process to identify and/or designate the surgical procedure to be performed and the surgical site and involves the patient in that process. The person performing the procedure marks the site. For dental procedures, the operative tooth may be marked on a radiograph or a dental diagram. Chapter 10. U

• Immediately prior to beginning a procedure, the operating team verifies the patient's identification, intended procedure, correct surgical site, and that all equipment routinely necessary for performing the scheduled procedure along with any implantable devices to be used are immediately available in the operating room. The provider performing the procedure is personally responsible for ensuring that all aspects of this verification have been satisfactorily completed prior to beginning the procedure. Chapter 10. V
Sample Checklists—World Health Organization

**SURGICAL SAFETY CHECKLIST (FIRST EDITION)**

**Before induction of anaesthesia**
- **SIGN IN**
  - Patient has confirmed
    - Identity
    - Site
    - Procedure
    - Consent
  - Site marked/not applicable
  - Anaesthesia safety check completed
  - Pulse oximeter on patient and functioning
  - Does patient have a:
    - Known allergy?
      - No
      - Yes
  - Difficult airway/aspiration risk?
    - No
    - Yes, and equipment/assistance available
  - Risk of >500ml blood loss (7ml/kg in children)?
    - No
    - Yes, and adequate intravenous access and fluids planned

**TIME OUT**
- Confirm all team members have introduced themselves by name and role
- Surgeon, anaesthesia professional and nurse verbally confirm
  - Patient
  - Site
  - Procedure

**SIGN OUT**
- Nurse verbally confirms with the team:
  - The name of the procedure recorded
  - That instrument, sponge and needle counts are correct (or not applicable)
  - How the specimen is labelled (including patient name)
  - Whether there are any equipment problems to be addressed
- Surgeon, anaesthesia professional and nurse review the key concerns for recovery and management of this patient

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This checklist is not intended to be comprehensive. Additions and modifications to fit local practice are encouraged.
## Sample Checklist—AORN

### Comprehensive Surgical Checklist

**Preprocedure: Check-In**
- In Holding Area

**Sign-In**
- Before Induction of Anesthesia

**Time-Out**
- Before Skin Incision

**Sign-Out**
- Before the Patient Leaves the Operating Room

#### Patient/Operator/Representative
- Confirms Active Consent

#### RN and Anesthesia Care Provider
- Confirm: Identity, Procedure, Procedure Site, Consent(s)
- Site marked by person performing procedure

#### RN Confirms Presence of:
- History and Physical
- Preanesthesia Assessment
- Diagnostic and Radiologic Test Results
- Blood Products
- Any Special Equipment, Devices, Implants

**To All Team Members:**
- What are the key concerns for recovery and management of this patient?

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**June 2013**

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**AORN**

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The JC does not stipulate which team member initiates any section of the checklist except for site marking. The Joint Commission also does not stipulate where these activities occur. See the Universal Protocol for details on the Joint Commission requirements.
## Atul Gawande’s Guidance on Checklist Development

<table>
<thead>
<tr>
<th>DEVELOPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have clear, concise objectives for your checklist?</td>
</tr>
<tr>
<td>• Does it include the critical safety steps that are highly likely to be missed?</td>
</tr>
<tr>
<td>• Are the items not adequately checked by other mechanisms?</td>
</tr>
<tr>
<td>• Are the items actionable, with a specific response?</td>
</tr>
<tr>
<td>• Can the items be affected by the use of the checklist?</td>
</tr>
<tr>
<td>• Is the checklist designed to be read out loud?</td>
</tr>
<tr>
<td>• Have all team members been included in the checklist development?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DRAFTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the checklist consider the following?</td>
</tr>
<tr>
<td>• Utilize breaks in workflow?</td>
</tr>
<tr>
<td>• Use simple language?</td>
</tr>
<tr>
<td>• Have a title that reflects its objectives?</td>
</tr>
<tr>
<td>• Have a simple, logical, uncluttered format?</td>
</tr>
<tr>
<td>• Fit on one page?</td>
</tr>
<tr>
<td>• Minimize the use of color?</td>
</tr>
<tr>
<td>• Is the font sans serif, upper and lower case, large enough to read?</td>
</tr>
<tr>
<td>• Is the text dark on a light background?</td>
</tr>
<tr>
<td>• Are there fewer than 10 pause points per item?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VALIDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before you implement the checklist have you done the following?</td>
</tr>
<tr>
<td>• Trialed the checklist with front line users?</td>
</tr>
<tr>
<td>• Modified the checklist in response to repeated trials?</td>
</tr>
<tr>
<td>• Ensured that the checklist fits the flow of work?</td>
</tr>
<tr>
<td>• Ensured that errors are detected at a time when they can still be corrected?</td>
</tr>
<tr>
<td>• Determined that the checklist can be completed in a reasonably brief period of time?</td>
</tr>
<tr>
<td>• Put in place a review and revision timeline?</td>
</tr>
</tbody>
</table>
Checklist Critical Elements

• Does your surgical checklist have 3 phases—before induction of anesthesia, before skin incision, and before the patient leaves the room?

• Are the items on the checklist meant to be read aloud, without reliance on memory, so all team members can hear them?

• Does every person in the room have the opportunity to say something before skin incision at a minimum to introduce themselves with their role or state they are ready to proceed?

• Will the surgeon share an operative plan and discuss: anticipated blood loss, expected duration of the procedure, possible difficulties, and implant or special equipment with the entire team before skin incision?

• Will the nurses and surgical techs discuss the entire team and their concerns about the patient?

• Will the anesthesia provider discuss the anesthetic and airway plan with the entire team?

• Will the surgeon ask the entire team to speak up if they have any concerns during the case?

• Before the patient leaves the OR will all the team discuss what could have been done better?

Recommendations from Safe Surgery 2015: South Carolina
Checklist Modification Guidance

Items that belong on the checklist are ones that have serious consequences if they are missed

- Is this a safety step that you might not notice if it is not done?
- Is this item discussed at a time when all relevant team members are present?
- Is this adequately checked by another mechanism?
- Is the checklist the best way to take care of it?
- Can something be done about it?
- If the item will not help you, will this item help anyone here?
Safe Surgery Checklist Resources

• World Health Organization (WHO)

• SafeSurg.org
  – For a modifiable template: http://www.safesurg.org/template-checklist.html
  – For examples, including for endoscopy centers: http://www.safesurg.org/modified-checklists.html

• AORN (combines WHO checklist and JC universal protocol)
  – http://www.aorn.org/PracticeResources/ToolKits/CorrectSiteSurgeryToolKit/Comprehensivechecklist/

• ASCA Connect
  – http://www.ascaconnect.org/CONNECT/Home/

• The Joint Commission
  – http://www.jointcommission.org/standards_information/up.aspx


• Safe Surgery 2015: South Carolina
  – www.safesurgery2015.org
Implementing a Safe Surgery Checklist

• Engage actively with key stakeholders
• Develop clear tools and processes to support implementation
• Set clear expectations for individual accountability
• Make it part of your culture
Engagement with Key Stakeholders

Lack of engagement in the development and revision of the checklist is the number one reason for poor checklist pull through

• Include all members of the team in the development and implementation of the checklist

• Identify key physicians who will champion the process

• Focus on the WHY
  – Evidenced based studies showing that checklist improvement improves results
  – Gawande’s thoughts on autonomy

• Agree on usage commitments
  – Ask your MD champion to talk about the checklist with colleagues and ask for support with the process
  – Track usage and report on success at MEC/Governing Board/Medical Staff meetings and teammate meetings
Tools and Processes

• Trial the checklist
  – Try out the suggested checklist a few times—either simulated or live
  – Make changes if needed and re-trial

• Model the usage of the checklist in detailed way
  – Toolkits
  – Videos
  – Flow diagrams
Personal Accountability

• Set Expectations
  – Clear definition of top level performance
    – Deliver results/demonstrate technical competency and live the values
    – What does it look like?
    – Pay for performance
  – Include clear expectations on checklist use
    – As a team member, you cannot be a top performer if you do not continually work to improve results
    – As a leader, you cannot be a top performer if you do not deliver clinical results

• Set the pace
  – Observe time outs
  – Verify checklist pull through
  – Talk about clinical quality at the start of every call and meeting
  – Use the WHY to drive pull through
Culture of Patient Safety

• Paint the picture
  – Talk in terms of healthcare harm
  – Good is not enough
  – Widely disseminate the metrics/results

• Set standard for transparency
  – Have the tough conversations/openly discuss errors
  – Agree to call each other out on mistakes, omissions, behavior not consistent with values
  – Not point out and error is as serious as making an error

• Celebrate success
  – Stories
  – Turnarounds
  – Consistency
Closing Thoughts

• The more complex a procedure is, the more opportunities there are to miss a critical step
• Checklists work because they point out missed steps or problems that may have been overlooked secondary to our own sense of familiarity with the procedure
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Questions
Contact Information

- Michelle George
  - michelle.george@scasurgery.com

- Linda Lansing
  - linda.lansing@scasurgery.com