A health care checklist is defined as a predetermined, well-defined, evidence-based set of steps that should be completed during a designated medical clinical encounter or medical procedure.7

The value of checklists

- The effectiveness of checklist use to improve patient safety and health outcomes has garnered sufficient attention to warrant the drafting of key legislation.1
- The 1999 Institute of Medicine report, “To Err is Human: Building a Safer Health System” found that medical errors are most often due to human fallibility with the largest number of errors occurring in high-intensity settings (i.e., ICUs, ERs, and ORs).2 The use of checklists may assist in reducing the number of errors that occur in the surgical/procedural setting.
- Non-medical, high reliability organizations (HROs) (e.g., aviation, military operations and engineering) have successfully implemented checklists to reduce their error rates.3
- Preoperative checklists, checklists to prevent central-line-associated bloodstream infections (CLABSI), and anesthesia checklists have been identified as top patient safety strategies to prevent operative and postoperative events.4
- Checklists have been validated as an effective tool in improving patient safety in both the inpatient and ambulatory surgery settings.4, 5

Checklists and Ambulatory Surgery

- As in inpatient surgery settings, ambulatory surgery settings face adverse events due to human fallibility.
- For 2012, the following rates per 10,000 ASC admissions were found:
  - 1.5 patient falls
  - 25 patient burns
  - .27 patient events involving either the wrong site, wrong side, wrong patient, wrong procedure or wrong implant.6
- Checklists may prevent or lower the rate of patient falls, burns and wrong site procedures.
THE TOOL

The Association of periOperative Registered Nurses (AORN), a member association of AAAHC, has developed the Comprehensive Surgical Checklist (adapted here with permission) that combines items from the World Health Organization (WHO) Surgical Safety Checklist, and The Joint Commission (TJC) Universal Protocol safety checks. This tool offers guidance for pre-procedure check-in, sign-in, time out and sign out. Open-ended questions are also included to encourage active participation from all members of the surgery team.

COMPREHENSIVE SURGICAL CHECKLIST

<table>
<thead>
<tr>
<th>When</th>
<th>PREPROCEDURE CHECK-IN</th>
<th>SIGN-IN</th>
<th>TIME-OUT</th>
<th>SIGN-OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>In holding area</td>
<td>Before induction of anesthesia</td>
<td>Before skin incision</td>
<td>Before the patient leaves the operating room</td>
<td></td>
</tr>
</tbody>
</table>

**Who:** Patient/patient representative actively confirms with Registered Nurse (RN):
- RN and anesthesia care provider confirms:
  - Name of operative procedure: Yes
  - Introduction of team members: Yes
- Site marked by person performing the procedure: Yes
- Confirmation of: identity, procedure, procedure site and consent(s): Yes
- Site marked by person performing the procedure: Yes
- Patient allergies: Yes
- Difficult airway or aspiration risk:
  - No
  - Yes (preparation confirmed)
- Risk of blood loss (> 500 ml): Yes
- # of units available ______

**What:**
- Confirmation of: identity, procedure, procedure site and consent(s): Yes
- Site marked by person performing the procedure: Yes
- Patient allergies: Yes
- Difficult airway or aspiration risk:
  - No
  - Yes (preparation confirmed)
- Risk of blood loss (> 500 ml): Yes
- # of units available ______

**Sample Checklists and Improved Patient Safety**

Examples of checklists applicable to ambulatory settings and studies of their efficacy include:
- A study of the World Health Organization (WHO) Safe Surgery Saves Lives Challenge found that using the WHO checklist in eight clinical sites ranging from third-world hospitals to state-of-the-art academic centers resulted in a 4% decrease in surgery-related complications and 7% reduction in-hospital deaths for 3,955 consecutive patients.
- The Surgical Patient Safety System (SURPASS) checklist that follows each patient from admission to discharge was studied at six Dutch hospitals. Complications per 100 patients dropped 39%. Surgical mortality for all participating hospitals decreased from 1.5 to 0.8%.
- A study using the Johns Hopkins Central Line Insertion Care Team Checklist developed by Peter Pronovost, MD, found the rate of infection decreased from 11.3 per 1,000 catheter-days in the first quarter of 1998 to 0 per 1,000 in the fourth quarter of 2002. The control ICU noted no significant changes.
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