World Health Organization
Safe Surgery Saves Lives

Starter Kit for Surgical Checklist Implementation

Version 1.0

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Executive Summary:

The WHO Surgical Safety Checklist is a tool created by leaders in surgery, anaesthesia, nursing and quality improvement to reduce the number of errors and complications resulting from surgery. The checklist outlines essential standards of surgical care and is designed to be simple, widely applicable and address common and potentially disastrous lapses.

Every operating room team can improve the safety and efficacy of care delivered to surgical patients. The WHO has created this starter kit to help you and your hospital implement a checklist that can identify gaps in perioperative practice and establish or confirm adherence to proven standards of care that can improve surgical results and decrease deaths and complications. The starter kit also provides a detailed explanation of strategies for putting this checklist into place, a means of identifying essential staff members and clinicians, and a guide for troubleshooting problems that are bound to arise during the process of implementation.

We hope that these materials are useful to you. Please send your thoughts, feedback, and experiences with implementation and this starter kit to our email address at safesurgery@hsph.harvard.edu. We count on your feedback to help improve this project and the safety of surgical patients everywhere.

Background:

In January of 2007 the World Health Organization launched a project aimed at improving the safety of surgical care globally. The initiative, called Safe Surgery Saves Lives, aims to identify minimum standards of surgical care that can be universally applied across countries and settings. By focusing attention on surgery as a public health issue, the WHO is recognizing the importance of improving the safety of surgical care around the world. The initiative seeks to harness political commitment and clinical will to address many important safety issues, including inadequate anaesthetic safety practices, avoidable surgical infection, and poor team communications. These have proved to be common, deadly, and avoidable problems across all countries and settings.

Through a two year process involving international input from surgeons, anaesthesiologists, nurses, infectious disease specialists, epidemiologists, biomedical engineers, and quality improvement experts, as well as patients and patient safety groups, the WHO created a surgical safety checklist that encompasses a simple set of surgical safety standards that can be used in any surgical setting. Each safety step on the checklist is simple, widely applicable, and measurable. In addition, the safety steps reduce the likelihood of serious, avoidable surgical harm and are unlikely to introduce harm or unmanageable cost.

Organizations from around the globe (including professional societies of surgery, anaesthesia, nursing; patient safety groups; ministries of health; health provider organizations; and nongovernmental and relief organizations that provide surgical care) have endorsed the concept of the checklist. The checklist is not a regulatory device or a component of official policy, however. It is intended as a tool for use by clinicians interested in improving the safety of their operations and reducing unnecessary surgical deaths and complications.

The program was officially launched on June 25, 2008, in Washington, D.C. As a result, surgical safety is now a priority for health care safety and quality improvement. The checklist is currently being validated in eight pilot sites in diverse global settings. Preliminary data show that key safety standards are rarely followed in their entirety and that the checklist has improved adherence to these key measures.

While the checklist is simple in concept, actually using it yourself and implementing it in your hospital may be more difficult than is immediately apparent. This starter kit will help you evaluate the current state of safety practices and standards at your facility and identify areas for improvement. It provides suggestions for strategies to leverage changes in the process of care that can translate into improved outcomes for surgical patients.

One of the most important aspects of this program is the ability to measure and track changes over time. Therefore, we also provide a starting point for quickly assessing and measuring current practices and comparing them with the objectives of safe surgical care established by the WHO.

With 234 million major surgical procedures occurring annually, surgical safety is now a major issue for public health. The Safe Surgery Saves Lives programme aims to improve safety standards on a worldwide basis. Having your facility participate in this process brings everyone closer to meeting the objectives of improved surgical care.

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

Before skin incision ▸▸▸▸▸▸▸▸▸▸▸▸▸▸

TIME OUT

- ☐ **CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE**
- ☐ **SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM**
  - PATIENT
  - SITE
  - PROCEDURE

ANTICIPATED CRITICAL EVENTS

- ☐ **SURGEON REVIEWS:** WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
- ☐ **ANAESTHESIA TEAM REVIEWS**: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
- ☐ **NURSING TEAM REVIEWS:** HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?

HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?

- ☐ YES
- ☐ NOT APPLICABLE

IS ESSENTIAL IMAGING DISPLAYED?

- ☐ YES
- ☐ NOT APPLICABLE

Before patient leaves operating room

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**

THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.

Condensed How-to Guide for the Surgical Checklist

(See the Implementation Manual for a more detailed explanation of each step, available on the WHO website at: http://www.who.int/patientsafety/safesurgery/tools_resources/technical/en/index.html)

Build a team

Commitment by all clinical team members involved in surgical procedures is essential. Tell your colleagues about the checklist, starting with those who are likely to be most supportive. Include colleagues from other clinical disciplines (surgery, anaesthesia, nursing) in these discussions. Identify a core group of people who are enthusiastic about the checklist while trying to involve at least one member from each of the clinical disciplines. At this early stage, work with those who are interested and willing to work with you, rather than trying to change the most resistant people.

Meet with hospital leaders

This starter kit includes powerpoint presentations that can be modified and used to present the checklist to your hospital leadership. Emphasize the benefits of lower complication rates and the potential for cost savings. Support of this initiative by leaders in each of the clinical disciplines is critical to its success. Think about what the hospital leadership can do to promote the checklist.

Start small, then expand

With the help of hospital leadership, run a campaign to get the checklist implemented in specific settings, for example a single operating room or within a single department. During the original evaluation by WHO, sites that tried to implement the checklist in multiple operating rooms simultaneously or hospital-wide faced the most resistance and had the most trouble convincing staff to use the checklist effectively. Start small, testing out the checklist in one operating room with one team and moving forward after problems have been addressed and when enthusiasm builds.

Use the checklist

Make sure your core team members from step 1 are using the checklist in their own operating rooms. Slowly encourage others to adopt the checklist and work through potential concerns with them. Do not hesitate to customize the checklist for your setting as necessary, but do not remove safety steps just because you are unable to accomplish them.

Track changes

Collect data to see if the standards are being followed as the checklist is implemented in more operating rooms. Follow both process and outcome measures—e.g. In what percent of operations are we giving antibiotics at the correct time? How many patients get surgical site infections?

Set public goals

Once you have a sense of your data, try to improve your numbers by letting your whole hospital know about improvement goals you hope to achieve.

Update the hospital on progress

Make the progress on both process and outcome measures publicly available so that hospital staff can witness improvement.

Continuity is essential

Continue to use the checklist. Data collection may become less frequent as the checklist is accepted. A periodic check on progress will ensure that process measures stay on track and complications are minimized.

Share your experience with the Safe Surgery Saves Lives program

Tell your stories of success and challenges at http://www.who.int/patientsafety/challenge/safe.surgery/en/. You can also email us at safesurgery@hsph.harvard.edu.

Implementation of the Surgical Safety Checklist, a How-To Guide

In this guide, the “operating team” is understood to include the surgeons, anaesthesia professionals, nurses, technicians, and other operating room personnel assisting with the surgery. Much as an airplane pilot must rely on the ground crew, flight personnel, and air traffic controller for a safe and successful flight, a surgeon is an essential but not solitary member of a team responsible for patient care. The operating team referred to in this guide is therefore composed of all persons involved with the surgery, each of whom plays a role in ensuring the safety and success of an operation.

This starter kit provides suggestions for implementing the checklist, understanding that different practice settings will adapt it to their own circumstance. Each individual safety check has been included based on clinical evidence or expert opinion that its inclusion will reduce the likelihood of serious, avoidable surgical harm and that adherence to it is unlikely to introduce injury or significant cost. The checklist was also designed for simplicity and brevity. Many of these steps are already accepted as routine practice in facilities around the world, though they have only rarely been followed in their entirety. As a result, each surgical department must practice with the checklist and examine how to sensibly integrate these essential safety steps into their normal operative workflow.

Ultimately the goal of the surgical safety checklist is to help insure that teams consistently follow a few critical safety steps and thereby minimize the most common and avoidable risks that endanger the lives and well-being of surgical patients.

It will take practice for teams to learn to use the checklist effectively. Some individuals may feel it is an imposition or even a waste of time. The goal is not to produce rote recitation or to frustrate workflow. It is intended to provide teams with a simple, efficient set of high priority checks for improving effective teamwork and communication—and ensure that the safety of the patient is a top priority in every single operation that is done. The checklist provides a tool for two purposes: enabling consistency in safety for patients and introducing (or maintaining) a culture that values achieving it.

Successful implementation requires adapting the checklist to local routines and expectations. This will not be possible without sincere commitment by hospital leaders. For the checklist to succeed, the chiefs of surgery, anaesthesia, and nursing will need to publicly embrace the belief that safety is a priority and the use of the checklist to help make it so. This should include their personal use of the checklist and their regularly asking others how the process of implementation is going. If there is not demonstrable leadership, then instituting a checklist of this sort may discontent and antagonism.

Lastly, in order to insure brevity, the surgical safety checklist is not designed to be exhaustive. There must be a balance between inclusion of important items and overall length of the checklist. Each individual facility will have additional safety steps that are followed. Each locale is therefore encouraged to reformat, reorder, or revise the checklist to accommodate local practice while insuring the completion of its critical safety steps.

Please fill in the following worksheet prior to beginning the intervention and continue to refer to this worksheet throughout the intervention.

1) Build a team.

Start by telling colleagues about the surgical checklist. Gather a team of people who are excited about the checklist and potentially are willing to help you in your endeavor.

Write in their names here:

____

____

____

2) Meet with hospital leaders.

Meet with people in your hospital who are leaders in their disciplines. Be sure to include at least the following individuals in this meeting: a leader in nursing, a leader in anaesthesia, a leader in surgery, and an administrative leader of the hospital. In this meeting, you should give the powerpoint presentation which can be found on our website. It is designed to inform an audience with diverse educational backgrounds about what the checklist is, what the evidence behind its use is, and how it can be used in a hospital setting. You should feel free to modify this as you see fit or to create a presentation of your own. If people at the meeting have detailed questions about the evidence behind the checklist, there are many resources on our website including the document "Evidence for use of the Checklist," that you can refer them to.

After you have presented the checklist, be open to suggestions and constructive criticism so that you can work out the concerns that members of the group may have. This should ideally be a small enough meeting that you can understand whether people are receptive to the idea or not by allowing everybody to share their thoughts about the checklist. At the end of your presentation, you may ask the group, "Is this an idea that you could see working at our hospital? Do you have any reservations about using the checklist?" It may be necessary to also meet later with individual leaders who are resistant to the idea of the checklist, but we have found that in general, most hospital leaders are excited about innovative ideas that can help potentially reduce complications and save money.

Write down which leaders are now on-board for using the checklist, as well as the departments that they represent.

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3) Collect information.

Fill out the sheet "Questions for Hospitals to Answer Prior to Implementing the Checklist," which can be found on our website. This four-page interactive document is designed to help you think about what data you can feasibly collect and how that may be collected in your hospital. Your team of leaders should review this document. Step 3 can be done in conjunction with step 4.

4) Assess areas for potential improvement.

Decide what data you want to collect with regard to the checklist. The data collection sheet which was used at the eight initial pilot sites of the checklist can be seen on our website. You might decide that you want to collect additional data because you see another area for improvement beyond what is listed on our checklist.

Write in the additional data you will be collecting here:

___

___

___

Collect data for a month. We recommend that you collect data on at least 50 cases so that you will be able to measure real improvement. People at your hospital will be much more willing to use the checklist if you can prove that using it is making real and significant differences in the health outcomes of patients. You will need data telling you where you have started in order to later evaluate with how much you have improved.

Set goals here for number of cases on which you will collect data _________ and date of completion of data collection _______________.

On the above date, write in how many cases you have collected and identify potential areas for improvement (for example, in only 57% of our procedures are patients receiving appropriately-timed antibiotics) as well as data that tells you that you are doing well on in a certain area (in 100% of our cases, sterile instruments are being used).

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___

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5) Run a multimedia campaign.

The next step is to make the larger hospital community aware of the importance of the checklist and to get medical professionals using it (and perhaps even to get patients asking for it to be used). This involves a publicity blitz, depending on what resources are available to you, of posters, emails, buttons, stickers, and videos to make people aware of this simple but elegant tool for improving surgical outcomes. Get creative with this campaign and customize it to your community. Maybe you know that very few people read emails sent out by department heads, so instead put up posters telling people about the checklist around the hospital. Perhaps you happen to know that your colleagues enjoy videos. Show the video from our website on how to run the checklist to your department and publicize the video screening on stickers that you hand out. This publicity doesn't have to cost a lot of money, but the more innovative and catchy it is, the better. Medical professionals often have limited time so a succinct message can go a long way. Additionally, having solidified support from hospital leaders of the checklist during your earlier meetings will make this broader campaign much easier. With their permission, you can say that these leaders have endorsed the use of this checklist. Ideally they will even be willing to help publicize the checklist within their own departments.

Write down what media you plan to use to publicize the checklist (for example, email, posters, etc.) as well as key people who will agree to work on publicity within each medium or within each department.

6) Use the checklist.

You don't have to wait until the multimedia campaign is over to start using the checklist in your own operating room. Once baseline data collection is complete, start using the checklist. This will allow you to both serve as a model for others, and will help you to assess early on what are some of the challenges in using the checklist in your hospital. At this stage and as you receive feedback from others, feel free to customize the checklist to your own setting. Maybe it makes more sense in your hospital to switch the order of several items. You could laminate the checklist and place it in a prominent place in the operating room, writing on it with a white-board marker which can erase between uses. Or you can use paper copies. The checklist is meant to be flexible, so if staff are complaining of a certain issue relating to using it, try to rework either the checklist's content or the way it is used in order to better fit your setting.

Remember that it is essential to start small with the use of the checklist. At first you may be the only one using the checklist. Then the nurse you are working with is a part of a different surgical team the next day. She uses the checklist and

the surgeon on her team likes it so much that he begins to use it in all of his operations. People may be resistant initially to being asked to do another task in the operating room, yet when they see the checklist in action, they could change their minds.

Use this space to write in any challenges that you or others are having in using the checklist.

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7) Continue data collection.

The checklist is much less effective if you don't know whether implementation is improving patient outcomes. Be sure that you are collecting data as you go. If your hospital has the resources and is large, it may be appropriate to have someone work on collecting data full-time. If your hospital doesn't have as many resources, or when you are just starting out, you may want to collect data on your own, or have people feed data to you from their own operations.

Write in who you plan to put in charge of the data collection:

Make a graph of your progress. This can be week by week, if improvements are being made that quickly, or on a monthly basis. In January, before you implemented the checklist you might be at 57% for proper timing of antibiotics before surgery. In February, as the checklist first started, this number went up to an average of 60%, but by March, when the checklist was being used in about half of the operations done in the hospital, the group could have reached a commendable 85%. A graph can be a powerful visual tool for displaying this progress.

8) Set public goals.

Where do you want to be in a month? In a year? Your goals will depend entirely on your specific setting and how easy it is to make changes in your institution. Sit down with the leadership of the hospital before widespread implementation begins and think about specific numeric goals that you have. For example, in January 2008, you decide that you want the checklist to be used in 50% of the operations done in the hospital by June 2008. Make sure that the goals are feasible yet ambitious. You can also have specific goals for items on the checklist that your hospital especially needs to work on. For example, "As our hospital currently has the correct timing for antibiotics in about 57% of its operations, our goal is that we raise this number to 80% within six months."

Be sure to come up with goals that include the different disciplines. So for example, rather than only setting goals that the surgeons, nurses, and

anaesthesiologists have direct control over, aim to set specific goals for the hospital CEOs such as having every upper-level hospital administrator witness the use of a checklist in an operation or having hospital accountants calculate the amount of money that has been saved thus far through the checklist's prevention of costly surgical complications

You can encourage the use of the checklist by bringing out the competitive side of people. Once the use of the checklist is well-established, you can hold a competition between, for example, the orthopedic and vascular surgery teams to see who is more consistent in the use of the checklist. Then post each team's progress in a public forum in order to maintain competition and reward the winning team.

Write down several specific goals for your hospital, department, or surgical team.

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9) Update the hospital on progress.

It is important to let the staff members of the hospital know how you the hospital or their specific department is doing with regard to the checklist. Make graphs and tables of your current checklist uptake and outcomes available in public spaces, on your website, or in a hospital-wide email. These numbers can be a source of pride for the surgical teams and such announcements act as an additional ongoing component of the multimedia campaign, reminding surgical teams to use the checklist.

Write in a schedule for updating the hospital on progress (Every month? Every two weeks?).

---

10) Repeat.

Continue to collect data, set goals, and publicly announce successes with regard to the checklist's uptake and specific items, as well as overall surgical complication rates. In time, the checklist should become a standard part of life in your hospital. Continue to meet with the hospital's leadership to think about ways to improve use of the checklist, and ask for feedback from all levels about challenges related to the checklist. Finally, in addition to publicly announcing the successes of the checklist, celebrate these successes by acknowledging those who have taken key roles in the checklist's uptake or having a celebration for the group or department with the largest uptake or best percentages of a certain measure.

11) Share.

You've had some positive experiences and some challenges with using the checklist. Now is the time to let other hospitals hear about your experiences. Whether you are a surgeon or an administrator, a nurse or a CEO, you now have valuable insight into how to implement and use the checklist. Many other hospitals across the globe in very different settings are using the checklist as you read this. They can benefit from your new expertise. We encourage you to log-in to our website and access the discussion forum to ask questions, discuss how you overcame challenges, or share advice with your international colleagues in surgical safety.

If you would like to take your commitment to the checklist a step further, you may sign up to be a participating hospital or mentor. These self-selecting hospitals are leaders in their fields, and have been willing to go above and beyond to teach others about using the checklist. By signing up as a participating hospital or mentor, your contact information will be available to other surgical professionals who have logged in to our website. This is an important, meaningful way to interact with your international surgical community.

Questions for Hospitals to Answer Before Implementing the Checklist

Please fill in this form prior to using the surgical safety checklist in your hospital. This will allow you to ensure that appropriate leadership and the ability to collect data are in place before you begin using the checklist. This document will also provide baseline numbers to compare to later data.

General Information

Your name____
Your position at hospital____
Email address____
Hospital____
Location____
Number of beds in hospital____
Number of surgeons operating in hospital_____________________________
Number of anaesthesia professionals_________________________________
Number of operating rooms in hospital________________________________

Leadership

Who are the key leaders in each of the following departments who could help get the checklist in place?

Anaesthesia ____
____
Nursing____
____
Surgery____
____
Hospital administration____
____

Baseline Data

How many operations were performed in the past week in your hospital? ____________
In the past month? ______________________ In the past year? _____________________
Do you currently use a surgical checklist in your hospital?_________________________

Is the following documented and/or completed at the following appropriate times? Fill out the first column based on your current perception of the hospital, then collect data for about one week (or even one day) in order to fill out the second column.

Before Induction of Anaesthesia	**Perceived to be part of current process (Y/N)?**	**% of time actually completed based on data (or write unable to collect)**
Verbal confirmation with patient of identity, procedure, and consent		
Site marked by patient's surgeon		
Anaesthesia safety check of machine and medications		
Pulse oximeter used in all cases		
Airway evaluated and score documented		
Before Skin Incision	**Part of current process (Y/N)?**	**% of time completed (or write unknown)**
Introduction by name and role		
Verbal confirmation of patient, site and procedure immediately before incision with all team members present (often called a time out)		
Explicit discussion of specifics of case with all team members present including operative duration, patient comorbidities, and other critical issues		
Use of sterility indicators		
Before Patient (and Surgeon) Leave Operating Room	**Part of current process (Y/N)?**	**% of time completed (or write unknown)**
Formal post-operative debriefing		

Antibiotics

Who is responsible for the selection and administration of antibiotics?_______________

____

____

Where are antibiotics administered (e.g. in the OR, in the holding area, on the patient floor)?____

____

What is the target time for administration of antibiotics in relation to the surgery start time?____

____

Outcomes Data

Pick a manageable number of patient charts (50 or so) to look at and determine how many had the following outcomes.

Number of patients' charts total you are examining________________________________

How many surgical site infections did these patients have? __________________________

How many major complications did these patients have? (see below for examples of major complications) ____

(Wound disruption, CVA/Stroke, Graft/Prosthesis/Flap Failure, Pneumonia, Coma, Deep Vein Thrombosis, Unplanned Intubation, Cardiac Arrest Requiring CPR, Sepsis or septic shock, Pulmonary Embolism, Myocardial Infarction, Prolonged Ventilation, Major Peripheral or Cranial Nerve Injury, Return to Operating Room, Acute Renal Failure, Bleeding)

What is the surgical mortality rate at your hospital? ________________________________

For a Single Service, find the surgical site infection rate for the previous reporting period. (Skip this question and the next if not collected) ___________________________________

____

How is this collected? ____

____

____

Plan of Timeline for Implementation

Fill in how many operating rooms or surgeons (you may choose either or both) you plan to have using the checklist by each date.

Time elapsed	Operating rooms	Surgeons
1 week	one	one
1 month		
2 months		
4 months		
6 months		

Reviewed by ____ Date ____________

(preparer)

____ Date ___________

(hospital administrator)

____ Date ___________

(leader in nursing)

____ Date ___________

(leader in anaesthesiology)

____ Date ___________

(leader in surgery)

Frequently Asked Questions

1. **My hospital is quite large with many operating rooms. How can I implement a checklist in this environment?**
   The key to successful implementation is to start small. Start with a single operating room on one day and see how it works. This will guide you to strategies for altering the checklist to fit your needs, as well as identify potential barriers to adaptation.

2. **We already do these things. Why should we use a checklist?**
   While most or all of the items on the checklist may already be done at your hospital, we have found that in most hospitals there are opportunities for improvement in consistency. The checklist helps ensure that important safety steps are followed for each and every operation.

3. **What's in it for me?**
   By implementing the checklist, you can help to save patients' lives and decrease complications, be on the forefront of the surgical safety movement, and be a leader in your hospital.

4. **Our budget is very tight. How can we implement the checklist?**
   Using the checklist requires very minimal resource commitment. Reproduction and distribution of the checklist is the main financial cost. There is some need for personnel commitment at the beginning, but once the checklist has spread it should sustain itself.

5. **How much does it cost to implement the checklist?**
   The checklist is free to download, but will require input of human resources in order to implement it hospital-wide. Please read the starter kit, available on the website, to get a sense for the level of commitment this venture will require. Many of the elements of the checklist, such as a verification of patient's identification, require no money to implement and could save the hospital thousands of dollars by preventing surgical mishaps. Other items on the checklist, such as the use of antibiotics from 0 to 60 minutes prior to incision, make sure that resources that hospitals already have are used to their fullest potential.

6. **We are already very busy in the operating room. Isn't this just one more task using up valuable time?**
   Once the checklist has become familiar to the operating teams, it requires very little extra time to perform. Most of the steps are incorporated into existing workflow and the remainder will add only one or two minutes to the OR time. However, the checklist can also save time be ensuring better coordination between the teams, minimizing slowdowns for tasks like retrieval of additional equipment.

7. **While there is enthusiasm amongst some clinicians for the checklist, there are others who do not see the value of this initiative. Can we still use the checklist?**

Yes. Implementation should always begin with the most enthusiastic. Go after the "low hanging fruit," those who are interested in improvement. The checklist can be implemented by an individual clinician in cases in which he or she participates, a selected service or operating room suite at a hospital, or on a hospital-wide or even system-wide basis. Focus energy on those areas and individuals who are receptive to the idea at first and as they become accustomed to the checklist and its benefits, they will help it spread to their peers.

8. **We are interested in improving our hospital's performance in some perioperative measures not included on the checklist. How can we do this?**

The checklist, while intended to be universally applicable, is not always a perfect fit for all institutions. Modifications can be made to include items that are deemed essential. However, we would caution against making the checklist too comprehensive. The more items added to it, the more difficult it will be to successfully implement.

9. **What is the point of filling out the "Questions for Hospitals to Answer Prior to Implementing the Checklist"?**

Part of using the checklist in your hospital is measuring how it improves patient safety. Having baseline data will enable you to later see how far you have come with regard to outcome and process measures. We highly recommend not simply using the checklist, but measuring how that use changes the way surgery is practiced.

10. **Who came up with the checklist? Why are certain items on it?**

The checklist was developed by a team of international experts in surgery, anaesthesia, nursing, and patient safety. Each item on the checklist was selected to make surgeries safer and every single item is important. Please view the Guideline Document, available on our website, for detailed information on each item on the checklist.

11. **I have additional questions not covered by the FAQ. Can I speak to someone?**

We are currently setting up a network of mentors who have successfully implemented the checklist. Please visit our website again soon for updated information.