

# SAFE SURGERY SAVES LIVES INITIATIVE

## Implementation Guidelines



*"Safer Surgery Through Better Communication"*



Quality In Medical Care Section  
Medical Development Division  
Ministry of Health Malaysia  
Nov 2009



Quality In Medical Care Section  
Medical Development Division  
Ministry of Health Malaysia  
Nov 2009

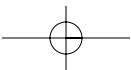
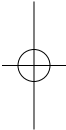
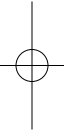
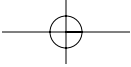
# SAFE SURGERY SAVES LIVES INITIATIVE

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Medical Development Division  
Ministry of Health Malaysia  
Nov 2009



## Foreword by **THE DIRECTOR-GENERAL OF HEALTH MALAYSIA**



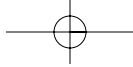
The Ministry of Health Malaysia has a “Vision for Health” that mandates the development of a safe Malaysian healthcare system, which is attained through the coordinated and concerted efforts of all the major stakeholders, and especially that of the “front-line” staff, often termed those at the “sharp end” of health care, where unfortunate clinical incidents often manifest. These front-liners often unfairly bear the brunt of the blame heaped upon the health care system. The MOH has thus seen it fit to adopt the approach recommended by patient safety experts throughout the world i.e. the “systems approach” to patient safety which states that errors are more commonly caused by faulty systems, processes, and conditions that cause people to make mistakes or fail to prevent them.

To build a culture of safety in our health care organizations, health care leaders must ensure that, in their organizations, “incidents” such as surgical mishaps must be routinely reported without the fear of unjust retribution on the part of the unfortunate health care worker. When people are not afraid to report adverse incidents because of the existence of a “just culture” where, when things go wrong, no one is immediately assigned blame (“blame culture”), only then will we be able to collect accurate and honest data about incidents, analyse them and learn important lessons from them and, in the process, improve our systems and processes so that the care that we provide will be safer.

For 2009, I am pleased that the Ministry of Health Malaysia has undertaken a number of note-worthy patient safety projects such as the “Safe Surgery Saves Lives” campaign, led by the Peri-operative Mortality Review (POMR) Committee and ably supported by the Quality in Medical Care Section, Medical Development Division, Ministry of Health Malaysia. The POMR Committee has, to its credit, expanded its mandate from auditing peri-operative deaths to taking a pro-active approach to Risk Management by implementing patient safety solutions. Because “safety is everyone’s business”, let us all work together in the spirit of teamwork and learning to make our health care system a safer one in 2010. “Success does not consist in never making mistakes but in never making the same one a second time”.



**Tan Sri Dato' Seri Dr. Hj. Mohd Ismail Merican**  
Director-General of Health Malaysia



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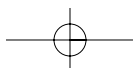
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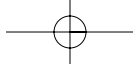
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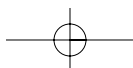
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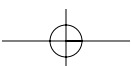
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# Introduction



## INTRODUCTION

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**'Safe Surgery Saves Lives' (SSSL)** is the second of a series of World Health Organisation's Patient Safety Challenges initiated in 2004 after the formation of the World Alliance for Patient Safety (WAFPS). This alliance aims to promote patient safety through political as well as professional commitment to this very important element of health care quality i.e patient safety.

Four strategies were introduced by the SSSL Steering Committee to address this challenge and they include:

1. Promotion of surgical safety as a public health issue.
2. Improving communication and team building to ensure safer surgery.
3. Creation of a check list to improve the standards of surgical safety
4. Collection of 'Surgical Vital Statistics'

The College of Surgeons Malaysia was represented by its president during the launching of this initiative on June 25th 2008 in Washington DC. This effort was endorsed during the Patient Safety Council of Malaysia meeting in May 2008. The Perioperative Mortality Review (POMR) Committee was entrusted to launch this initiative in Malaysia.

A 'Safe Surgery Saves Lives' Steering Committee was formed in the Ministry of Health (MOH) in September 2008, chaired by the Chairman of the Perioperative Mortality Review (POMR) Committee. Its members consists of surgeons, anaesthetists, the staff and Ministry of Health officers. This efforts are supported and coordinated by the Quality in Medical Care Section, Medical Development Division, Ministry of Health Malaysia. The committee is responsible for initiating and ensuring the implementation of this initiative in MOH hospitals.

On top of the ten objectives laid down by WHO (*Refer to Appendix 1*), the Committee proposed three additional objectives with emphasis on communication, namely to improve:

1. The understanding of the process of surgery by patients and relatives
2. Communication between operating team members
3. Rapport between the patient and the operating team

Thus, for this initiative, the Ministry of Health adopted the theme **‘Safer Surgery Through Better Communication’**.

The **WHO Surgical Safety Check List (Refer to Appendix 2)**, was adapted to be used in MOH hospitals after some modifications and trial runs to suit local conditions. Existing check lists in the MOH related to peri-operative care were also modified and used with the modified WHO Check List. The new and standardized Ministry of Health Check List, which will be used in all Ministry of Health hospitals, is known as the ‘Peri-operative Check List’. It consists of four components:

- **‘Pre-Transfer Check List’**
- **‘Operating Team Check List’**
- **‘Swab Count Form’**
- **‘Post-Operative Transfer Check List’**

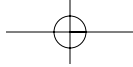
The check list was pilot-launched in six selected hospitals in February 2009, following a workshop involving all stake-holders. This check list was evaluated on April 27th 2009. The response was very encouraging with usage ranging from 80-100%.

Among the recommendations made to improve patient safety and communication are pre-operative and post-operative visits by operating surgeons.

Data to be collected include the implementation of this initiative, information regarding incidents during surgery, resources, work load and surgical outcomes. Formats to be utilized include the following:

- Report of Incident/Instrument Failure At The Operating Room (Daily) **SSSL\_1a**
- Report of Incident/Instrument Failure At The Operating Room (Monthly) **SSSL\_1b**
- ‘Discovery’ Report (i.e Report On Issues Discovered Related To Check List) (Daily) **SSSL\_2a**
- ‘Discovery’ Report (i.e Report On Issues Discovered Related To Check List) (Monthly) **SSSL\_2b**
- ‘Surgical Vital Statistics’ -Resources & Work Load **SSSL\_3**
- ‘Surgical Outcome Statistics’ **SSSL\_4**
- Evaluation of ‘Peri-Operative Check List Usage (Departmental Level) **SSSL\_5a**
- Evaluation of ‘Peri-Operative Check List Usage (Hospital Level) **SSSL\_5b**

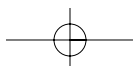
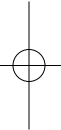
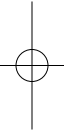
All the MOH hospitals are expected to use the check list by 2010. It is hoped that this effort will be able to meet its stated objectives.



## REFERENCES

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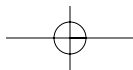
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- [www.who.int/safesurgery](http://www.who.int/safesurgery)
- To err is human, even for surgeons, Felice J.Freyer, [http://www.projo.com/news/content/WRONG\\_SITE\\_SURGERY\\_08-12-07\\_RD6NB7S.3391c3e.html](http://www.projo.com/news/content/WRONG_SITE_SURGERY_08-12-07_RD6NB7S.3391c3e.html)





02

“Using The Check List”



## “USING THE CHECK LIST”

### ROLES AND RESPONSIBILITIES – “WHO DOES WHAT?”

This ‘Ministry of Health Peri-Operative Check List’ is a 4-page form. It consist of :

- Page 1: Pre-operative check list
- Page 2: Operating team check list
- Page 3: Swab and instrument count form
- Page 4: Pre-discharge check

The second page (i.e Operating Team Check List) is a modification of the ‘WHO Surgical Safety Check List’.

#### PAGE 1 PRE-OPERATIVE CHECK LIST

This check list is used before sending the patient to the theatre and at the Reception Area of the OT.

- The ‘Patient Profile’ section is filled in the ward by the ward nurse before sending the patient to the Operating Theatre (OT).
- The ‘Pre-Transfer Check’ section under the ‘Ward’ column is filled by the ward nurse before sending the patient to OT.
- The ‘OT’ column is filled by the OT nurse at the Reception area of the OT.
- The lower section of the form, ‘INFORMATION ON OPERATING ROOM/ SURGEON / TIME OF SURGERY’ is filled in the OR by the Circulating Nurse.

#### PAGE 2 OPERATING TEAM CHECK LIST

This is the check list adapted from ‘WHO Surgical Safety Check List’.

It is used in the Operating Room before starting till the completion of surgery.

The Checklist Co-ordinator is usually the Circulating Nurse. It can also be other members of the team if agreed by the team. The operating surgeon may also take the lead as the Co-ordinator with the circulating nurse assisting in the check list entry.

## THE `SIGN-IN`

---

This is preferably done before Induction Of Anaesthesia

The anaesthetist checks the items in this section. The checklist coordinator then counter-checks with him if it has been done.

This section is checked with the anesthesia professional before induction of anaesthesia.

## THE `TIME-OUT`

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This section is done in the presence of the surgeon, scrub nurse and anaesthesia professional. This must be done before skin incision or preferably, before induction of anaesthesia.

The adherence to this section of the checklist should eliminate the possibility of the patient being induced and kept waiting for the surgeon to turn up.

## “WHITE BOARD”

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The White Board in the operating room shall be used to display information on the current patient and operation. This includes – name of patient, diagnosis, procedure and members of the operating team; antibiotic requirement, implant size, special positioning, on-table x-rays and other special requirement or reminders. This should be done by the operating surgical team before the start of surgery.

## INTRA-OPERATIVE COMMUNICATION

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This is an additional section that encourages communication between team members during the surgery. It has 4 components.

### (i) CHECK-IN

- The surgeon, after having completed the cleaning and draping process, communicates with the anaesthetist and scrub nurse to determine their readiness to commence surgery. Only when both have indicated so, should the surgeon initiate the skin incision.



- This is announced verbally and is usually agreed as the time `operation commenced’.
- In practice, the surgeon asks the anaesthetist and the scrub nurse, “can we start?”

### (ii) PERIODIC UPDATES

- For operations exceeding 1 hour in duration, if the surgery is running smoothly, it is a good practice to communicate the situation among the members of the operating team. This should be done at regular intervals such as half-hourly.
- The surgeon should inform the anaesthetist of the progress of the surgery. Similarly, the anaesthetist should update the surgeon about the patient’s vital signs. This will include blood pressure, pulse, temperature and urine output, depending on the nature of the surgery.

### (iii) SHOUT-OUT

- This refers to the act of vocalising clearly to the appropriate team members about certain intra-operative events in order to obtain undivided attention of a specific team member to the event.
- An example is when a pack is inserted into the abdominal cavity, the surgeon should `shout-out’ “ONE PACK IN!” The scrub nurse takes note of it and repeats the `shout-out’ to the circulating nurse. The same is done when the pack is removed from the cavity. The surgeon should `shout-out’ “ONE PACK OUT!”.
- This does not replace the system of tags placed at the end of packs or other forms of reminders already in place.
- Other events that deserve `shout-outs’ are :-

When instruments, gauzes have fallen off the operating field on to the floor.

When there is critical equipment malfunction, “diathermy not coagulating!”

When there is excessive bleeding, the surgeon should `shout-out` to the anaesthetist so that he is aware of the situation. This will enable him to prepare for the worst.

When the patient turns unstable, the anaesthetist should `shout-out` the situation to the surgeon. The surgeon may want to pause or review his actions.

#### **(iv) PRE-CLOSURE DISCLOSURE**

- The surgeon informs members of the team of the conclusion of the procedure before commencing the closure of the surgical wound.
- This will enable the anaesthetist to plan for reversal.
- The scrub nurse can commence the final swab and instrument count. She will inform the surgeon when this is done and correct.
- This is also an appropriate time to plan for the calling of the next case.

### **THE `SIGN-OUT`**

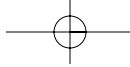
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- This is also called debriefing.
- The surgeon summarises the operative findings and procedure. He will verify what specimen will be sent and how it should be labelled.
- The anaesthetist will discuss any special post-operative instructions with the team at this juncture.
- Any instrument issues to be addressed will be summarised.

### **INFORM THE RELATIVES**

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Informing / communicating with relatives after the procedure is encouraged. How this is done depends on the local OT set-up and the public expectation. In some instances, operative specimens are also shown to the relatives. This usually enhances communication.



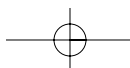
### **PAGE 3 SWAB AND INSTRUMENT COUNT FORM**

- This is similar to most swab count forms in-use now.
- If two different operating teams operate on the same patient, two different swab count forms should be used.
- Any issues, incidences or instrument malfunctions in the Operating Room should be recorded in the “incidences” section of this form form. Example, blunt scissors, diathermy malfunction or unsatisfactory temperature/humidity. This is later transferred to a ‘Faulty Instrument’ file for remedial action by the OT manager.
- If more than two scrub nurses scrub for the same case, just add the name after the first scrub nurse following a slash (/). The time that the 2nd nurse joined the team can be documented above the name. The same applies to the circulating nurse.

### **PAGE 4 PRE-DISCHARGE CHECK**

This is done by the Ward Nurse, together with the Recovery Room Nurse before the patient leaves the OT.

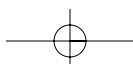
**\*The completed Peri-Operative Check List Form will be put in the patient’s case**





03

Ministry of Health  
Malaysia 'Peri-  
Operative Check List'



## PERI-OPERATIVE CHECK LIST

### PRE-OPERATIVE CHECK LIST

#### PATIENT PROFILE

(To be filled by Ward Staff)

Name : ..... I.C. no. : .....  
 Age : ..... Sex : ..... Race : ..... Reg. no. : .....  
 Unit : ..... Ward : ..... Weight : .....  
 Diagnosis : .....  
 Operation : .....  
 Checked by (Ward Staff) : ..... Date : ..... Contact person & HP No. : .....

#### PRE-TRANSFER CHECK

(Is done by the Ward Nurse before sending patient to OT and at Reception Area in OT by the OT Reception Nurse)

		Ward	OT	Remarks
1. Patient's Name <input type="checkbox"/> Identity Tag <input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
2. Consent for <input type="checkbox"/> Surgery <input type="checkbox"/> Anaesthesia <input type="checkbox"/> Transfusion		<input type="checkbox"/>	<input type="checkbox"/>	
3. Check <b>side</b> of operation <input type="checkbox"/> LEFT <input type="checkbox"/> RIGHT <input type="checkbox"/> NA		<input type="checkbox"/>	<input type="checkbox"/>	
4. Site (location) of operation marked? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA		<input type="checkbox"/>	<input type="checkbox"/>	
5. Last meal : Date ..... Time .....		<input type="checkbox"/>	<input type="checkbox"/>	
6. Check for dentures, jewellery, contact lenses etc:		<input type="checkbox"/>	<input type="checkbox"/>	
7. Premedication (write drug given)		<input type="checkbox"/>	<input type="checkbox"/>	
8. Blood availability (write what is available)		<input type="checkbox"/>	<input type="checkbox"/>	
9. Case notes <input type="checkbox"/> Old notes <input type="checkbox"/> X-rays <input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
10. B/P : ..... Pulse rate : .....		<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	

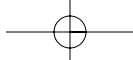
Handed over by (Ward Nurse) : .....

Received by (OT Nurse) : .....

#### INFORMATION ON OPERATING ROOM / SURGEON / TIME OF SURGERY

(Written in OR by Circulating Nurse)

Operating room no : .....  
 Anaesthetist : .....  
 Surgeons : .....  
 Time start : ..... Time complete : .....



## OPERATING TEAM CHECKLIST

### BEFORE INDUCTION OF ANAESTHESIA

#### SIGN IN

- Checked patient's**
- Identity
  - Site
  - Procedure
  - Consent
- Site marked**     Yes     No     NA
- Checked GA machine**
- Pulse oximeter on patient and functioning**

**Checked patient's :**

- Allergy?  
 No     Yes
- Airway / Aspiration risk?  
 No     Yes
- Risk of > 50ml blood loss (adult)  
 (>7 ml/kg in children)?  
 No     Yes
- Adequate IV access?  
 No     Yes

- Anticipated critical events**
- Surgeon reviews :** Any special steps, estimated duration, possible excessive blood loss?
- Anaesthesia team reviews :** Any patient-specific concerns?
- Nursing team reviews :** Instrument sterility confirmed, implants / prosthesis available /

### DURING PROCEDURE

#### INTRA-OPERATIVE COMMUNICATION

- Check-in**
- Periodic updates**
- Shout-out**
- Pre-closure disclosure**

### BEFORE PATIENT LEAVES OPERATING ROOM

#### SIGN OUT

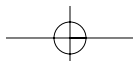
- Nurse verbally confirms with the team :**
- The final name of the procedure**  
 (With proper spelling)
- Final count of instrument, sponges and needles is correct**
- How specimens are labelled**  
 (Including patient's name)
- Whether there are any equipment problems to be addressed**  
 (Note in swab count form - incidents / equipment failure section)
- Any special instructions from surgeon or anaesthesia professional during recovery and management of patient**
- Inform the relatives**

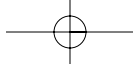
### BEFORE SKIN INCISION (OR BEFORE INDUCTION OF ANAESTHESIA)

#### TIME OUT

- "White board" written**
- Team members have introduced themselves by name and role**
- Surgeon, anaesthesia professional and nurse have verbally confirmed**
- Patient
  - Site
  - Procedure
  - Consent
- Has antibiotic prophylaxis been given?**  
 Yes     No     Not applicable
- Is essential imaging displayed?**  
 Not applicable     Yes

**Checklist co-ordinator :** .....  
 (Name)





## SWAB & INSTRUMENT COUNT FORM

### SETS & INSTRUMENT

**Basic set :**

**Supplementary :**

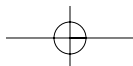
- |         |       |
|---------|-------|
| 1. .... | ..... |
| 2. .... | ..... |
| 3. .... | ..... |
| 4. .... | ..... |

Items	Initial count	Additional	Extra count	Additional	2nd count	Additional	Final count
Gauze							
Abdominal pack							
Blade							
Atraumatic needle							
Loose needle							
Diathermy cleaner							

Operation(s) done : .....

SPECIMENS SENT :	INCIDENTS / EQUIPMENT FAILURE :
1. ....	
2. ....	
3. ....	
4. ....	
5. ....	

1 <sup>st</sup> Scrub Nurse : .....	Signature : .....
2 <sup>nd</sup> Scrub Nurse : .....	Signature : .....
Circulating Nurse : .....	Signature : .....



## PRE-DISCHARGE CHECK

(Is done by the Ward Nurse with the Recovery Nurse before the patient leaves the OT)

	Checked	Remarks
1. Patient's name <input type="checkbox"/> Identity tag <input type="checkbox"/>	<input type="checkbox"/>	
2. Consciousness level: <input type="checkbox"/> Alert <input type="checkbox"/> Drowsy <input type="checkbox"/> Intubated	<input type="checkbox"/>	
3. Inform vital signs & pain score	<input type="checkbox"/>	
4. Check operative site / dressing	<input type="checkbox"/>	
5. Check drains, tubes and urinary catheter	<input type="checkbox"/>	
6. Check IV lines and infusions	<input type="checkbox"/>	
7. Blood used and unused	<input type="checkbox"/>	
8. Specimens	<input type="checkbox"/>	
9. Case notes <input type="checkbox"/> Old notes <input type="checkbox"/> X-rays <input type="checkbox"/> Operative notes <input type="checkbox"/> GA form <input type="checkbox"/>	<input type="checkbox"/>	
10. Check post-operative pain relief order	<input type="checkbox"/>	
11.	<input type="checkbox"/>	
12.	<input type="checkbox"/>	
13.	<input type="checkbox"/>	
14.	<input type="checkbox"/>	
15.	<input type="checkbox"/>	
16.	<input type="checkbox"/>	

OT Nurse : ..... Ward Nurse : .....  
(Name) (Name)

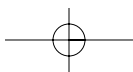
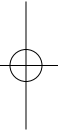
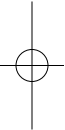
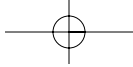
Date : ..... Time : .....

**“Safer Surgery Through Better Communication”**

**Patient Safety Initiative**

Quality in Medical Care Section  
Medical Development Division  
Ministry of Health Malaysia

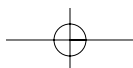






04

## Summary of Roles & Responsibilities



## SUMMARY OF ROLES & RESPONSIBILITIES “Who To Do What, Where & When”

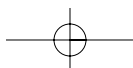
Steps	Location (Where)	When	Process (What)	Who “Checks”?	In The Presence of	Who “Writes” On The List?
1	Ward	Before sending the case to OT	Pre-op Check (pg1)	Ward Staff Nurse	-	Ward Staff Nurse
2	Reception Area in OT	On arrival in OT	Pre-transfer Check(pg1)	OT Reception Nurse	Ward Staff Nurse	OT Reception Nurse
3	Operating Room	On arrival in OR	Information on OR & Surgery (pg1)	Circulating Nurse	-	Circulating Nurse
4	Operating Room	Before the Surgeon enters	Sign In (Pg2)	Anesthetist	Anesthetic Assistant	Circulating Nurse
5	Operating Room	Before Induction	Time Out (pg2)	Surgeon	Scrub Nurse / Anesthetist	Circulating Nurse
6	Operating Room	During Procedure	Intra-op Communication (pg2)	Surgeon / Anesthetist	Scrub Nurse	Circulating Nurse
7	Operating Room	After Closure	Sign Out (pg2)	Surgeon	Scrub Nurse / Anesthetist	Circulating Nurse
8	Operating Room	Before starting, before and after closure	Swab & Instrument Count(pg3)	Scrub Nurse	Surgeon / Circulating Nurse	Circulating Nurse
9	Recovery Area in OT	Before patient leaves OT	Pre-discharge Check (pg4)	Ward Staff Nurse	Recovery Room Nurse	Ward Staff Nurse

“Safer Surgery Through Better Communication” - Patient Safety Initiative, Ministry of Health



05

Implementing Safe  
Surgery Initiative  
-Task of the 'Safe  
Surgery' Committee



## IMPLEMENTING SAFE SURGERY INITIATIVES -TASK OF THE 'SAFE SURGERY' COMMITTEE

---

### OBJECTIVES

1. To obtain top level management commitment
2. To use Ministry of Health Peri-operative Check List
3. To monitoring 'surgical vital statistics'

### PROCESS INVOLVED

1. Inform Hospital Director about 'Safe Surgery Saves Lives' (SSSL) Initiative.
2. Form a 'Safe Surgery Committee' at hospital level comprising of:
  - Heads of major discipline using the OT - anesthetist, surgeon
  - Representatives from OT sister/staff nurse
  - Representatives from ward sister/staff nurse
  - Unit Quality of Hospital
3. Launch awareness
4. Conduct a half day workshop for users – doctors, OT nurses & ward nurses
5. For State Hospital: Plan implementation of SSSL Initiative for other hospitals in the state.

### OTHER ACTIVITIES

1. Monitor implementation of SSSL Initiative
2. Decide on printing of forms:
  - a. To finish current stock of forms already printed
  - b. To print new forms (i.e "Peri-operative Check List)
  - c. To modify forms, as and when necessary
3. Incorporate SSSL into OT Committee agenda

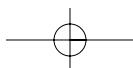
### ACTIVITIES AT NATIONAL LEVEL

1. National launching of SSSL Initiative together with seminar: 15-17 Nov 2009
2. Safe Surgery Review & Seminar: 2010 /2011 and periodically
3. Compile & analyse 'Surgical Vital Statistics'
4. Monitor implementation of SSSL



06

## Data Collection









SSSL_2a <b>'DISCOVERY' REPORT (i.e REPORT ON ISSUES DISCOVERED RELATED TO CHECK LIST) (DAILY)</b> (Form to be filled in by the nurse at 'Recovery Area', check daily by the Sister/Ketua Jururawat)					
Date	OR	Name of Patient	Type of Surgery	'Discovery'	Name of Reporting Person

**Examples of 'discovery' related to check list:**  
 Error: e.g error in taking consent, check list not filled up, check list not being used, review findings are not similar to what being ticked in the check list. Near miss (detected before 'something bad'/incident happen).

SSSL\_2b

**'DISCOVERY' REPORT (i.e REPORT ON ISSUES DISCOVERED RELATED TO CHECK LIST) (MONTHLY)**

Month \_\_\_\_\_/Year \_\_\_\_\_

No	Issues Discovered	Total	Notes

**Conclusion and recommendation:**

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**'SURGICAL VITAL STATISTICS'  
-RESOURCES & WORK LOAD DATA**

**A) Hospital Staff & Bed Strength**

Discipline	Specialist	Total Beds
1. General Surgery		
2. Anaesthesia		
3. Orthopaedics		
4. Plastics Surgery		
5. Ophthalmology		
6. ENT		
7. Obstetrics and Gynaecology		
8. Urology		
9. Paediatrics Surgery		
10.		
11. Others		
<b>Total</b>		

Number of Functional Operating Rooms in the Hospital .....

Number of Non-Functional Operating Rooms .....

Total No of OT Nurses/PPP (GA + Scrub) .....

**B) Total No Of Operations Done (Month \_\_\_\_/Year \_\_\_\_)**

Discipline	Month	Month	Total	Year
1. General Surgery				
2. Orthopaedics				
3. Plastics Surgery				
4. Ophthalmology				
5. ENT				
6. Obstetrics and Gynaecology				
7. Urology				
8. Paediatrics Surgery				
9.				
10. Others				
<b>TOTAL</b>				

**'SURGICAL OUTCOME STATISTICS'****A) Total No of Post-Operative Wound Infection**

(Month of ..... / Year .....)

Discipline	Month	Month	Total	Year
1. General Surgery				
2. Orthopaedics				
3. Plastics Surgery				
4. Ophthalmology				
5. ENT				
6. Obstetrics and Gynaecology				
7. Urology				
8. Paediatrics Surgery				
9.				
10. Others				
<b>TOTAL</b>				

**B) Total No of Post-Operative Death**

(Month of ..... / Year .....)

Discipline	Month	Month	Total	Year
1. General Surgery				
2. Orthopaedics				
3. Plastics Surgery				
4. Ophthalmology				
5. ENT				
6. Obstetrics and Gynaecology				
7. Urology				
8. Paediatrics Surgery				
9.				
10. Others (from record office)				
<b>TOTAL</b>				

SSSL\_5a

**EVALUATION OF PERI-OPERATIVE CHECK LIST USAGE (DEPARTMENTAL LEVEL)**

**Department :** ..... **Duration of Data Collected :** .....

CASE NO	OP DATE	PATIENT'S NAME	PRE-OP CHECK LIST	SIGN IN	TIME OUT	INTRA-OP COMMUNICATION	SIGN OUT	TOTAL (OUT OF)	%	SWAB COUNT	PRE-DISCH CHECK	PRE-OP VISIT *	POST-OP VISIT **	REMARKS
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														
11.														
12.														
13.														
14.														
15.														
16.														
17.														
18.														
19.														
20.														

At least 2 persons required to carry out this audit – 1 in OR (best in Recovery), the other from the ward.  
 PRE-OP VISIT \* - Documented in case notes the operating surgeon saw the patient pre-operatively  
 POST-OP VISIT \*\* - Documented in case notes the operating surgeon saw the patient pre-operatively. This information is sought in the ward after 1-2 days post-operatively.

SSSL\_5b

**EVALUATION OF PERI-OPERATIVE CHECK LIST USAGE (HOSPITAL LEVEL)**

Department : ..... Duration of Data Collected : .....

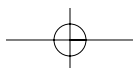
OP DATE	DEPT	NO SAMPLED	NUMBER COMPLIED / USED (>90%)				AS IN BHT			REMARKS
			PRE-OP CHECK LIST	INTRA-OP	SWAB COUNT	PRE-DISCH CHECK	PRE-OP VISIT	POST-OP VISIT		



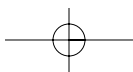
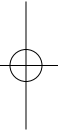
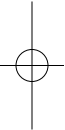
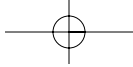


7.0

**‘Safe Surgery Saves  
Lives’ Power Point  
Presentation  
Templates**





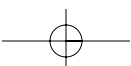




7.1

***Presentation 1***

WHO 'Safe Surgery Saves Lives'



*Dear Speaker,*

*Thank you so much for agreeing to be an ambassador for the Safe Surgery Saves Lives campaign. Now that we have entered the dissemination phase of our project, our success hinges upon the spread of knowledge and enthusiasm to stakeholders across the globe, and we cannot accomplish this without help from people like you.*

*This document is intended to supplement the “Speakers’ Kit PowerPoint,” providing you with both the key messages your presentation should cover as well as suggested talking points for each slide in the associated PowerPoint. Nonetheless, we understand that each speaking engagement is unique, and we encourage you to adjust the slides as well as the material covered to best serve your audience – please make the talk your own!*

*Finally, we suggest that you read the Safe Surgery Saves Lives FAQ (also provided) thoroughly before giving your presentation so that you are best able to answer any questions your audience may pose. Good luck, and as always, please contact us at [safesurgery@hsph.harvard.edu](mailto:safesurgery@hsph.harvard.edu) or visit our websites, [www.who.int/safesurgery](http://www.who.int/safesurgery) and [www.safesurg.org](http://www.safesurg.org), if you have any questions.*

*Sincerely,*

*The Safe Surgery Saves Lives Team*

## Key Messages to Convey During Your Talk

---

1. Surgical safety is currently unrecognized as a public health issue.
2. Standards of care are unevenly applied in all countries and all settings.
3. The Safe Surgery Saves Lives campaign has created 10 objectives for surgical safety that have been incorporated into a simple checklist that can be implemented anywhere in the world.
4. The Checklist has been proven to dramatically decrease complications and deaths.
5. A country needs to measure its surgical services and outcomes in order to develop appropriate public health policies to address the needs of its population.

## Talking Points for Powerpoint Presentation

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Slide 1 : World Alliance for Patient Safety: Safe Surgery Saves Lives

- N/A

Slide 2 : Surgical Public Health

- Introduction

Slide 3 : 3 Central Problems in Surgical Safety

- Surgical safety is crippled by its lack of recognition as a public health problem, a dearth of relevant data, and a general failure to apply known standards of care consistently

Slide 4 : Problem 1: Unrecognized as public health issue

- Estimates show that approximately 234 million major operations are performed every year – one for every 25 human beings on Earth

Slide 5 : Problem 1: Unrecognized as public health issue (cont.)

- Already a serious public health issue, worldwide surgical volume is only expected to increase

Slide 6 : Problem 1: Unrecognized as public health issue (cont.)

- Surgery has high rates of morbidity and mortality – at least 7 million people a year experience disabling surgical complications, and more than one million die

Slide 7 : Problem 2: Lack of Data on Surgery and Outcomes

- Public health campaigns rely on data collection, and yet we lack almost any fundamental data about global surgical services and outcomes

Slide 8 : Problem 3: Failure to use existing safety know-how

- Failure to consistently use proven standards of care means that problems persist with surgical site infections, anesthesia complications, and wrong-patient, wrongsite operations

Slide 9 : The Safe Surgery Saves Lives Strategy

- The SSSL Campaign strives to promote surgical safety as a public health concern, to develop a checklist to address this concern, and to collect data at a national level in order to inform future public health policies.

Slide 10 : WHO's 10 Objectives for Safe Surgery

- Over a two year period, surgeons, nurses, anesthesiologists, and patient safety experts from around the world developed the following 10 objectives for safe surgery using peer-reviewed evidence and expert consensus.

Slide 11 : WHO's 10 Objectives for Safe Surgery (cont.)

- N/A

Slide 12 : Reality Check

- Although you may think that your hospital already does these things, use of the checklist is vital to ensure that all necessary steps are completed consistently

Slide 13 : Advantages of Using a Checklist

- Given its simplicity and effectiveness, a checklist is the perfect tool to achieve these 10 objectives

Slide 14 : What is this tool that addresses the 10 objectives?

- The experts generated this surgical safety checklist, designed to address all 10 of the objectives set forth in the WHO Guidelines for Safe Surgery

Slide 15:

- Sign In – to be performed just before the patient undergoes anesthesia

Slide 16:

- Time Out – to be performed just before the first incision

Slide 17:

- Sign Out – to be performed after the surgery is complete, usually while the surgeon is closing

Slide 18: The Checklist was piloted in 8 cities

- Once developed, this surgery checklist was tested in 8 pilot cities across the globe:

Toronto, Canada  
London, United Kingdom  
Amman, Jordan  
Manila, Philippines  
Auckland, New Zealand  
New Delhi, India  
Ifakara, Tanzania  
Seattle, USA

Slide 19: Results

- Across the board – in both the developing and the developed nations where it was tested – the Checklist was found to increase adherence to basic standards and to reduce morbidity and mortality

Slide 20: What problems does this checklist address?

- The Checklist delineates key steps during perioperative care that should be accomplished during every operation in order to ensure correct patient, operation, and operative site

Slide 21: What problems does this checklist address? (cont.)

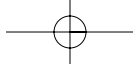
- Elements of the Checklist also encourage safe anaesthesia practice and resuscitation

Slide 22: What problems does this checklist address? (cont.)

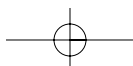
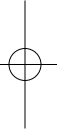
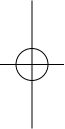
- The Checklist helps minimize the risk of surgical site infection

Slide 23: What problems does this checklist address? (cont.)

- The Checklist also helps foster effective teamwork, something that was



- recently recognized as an important component of perioperative care
- Slide 24 : Data Collection at a National Level (Surgical Vital Statistics)
- In order to address the global lack of surgical data, checklist implementation has been coupled with an effort to collect Surgical Vital Statistics in the institutions and nations in which it is used
- Slide 25 : Goals of the Safe Surgery Saves Lives Program
- Dissemination goals include benchmarks for checklist implementation and data collection in the coming years
- Slide 26 : Easy Math
- With 500,000 lives on the line every year, it is imperative that we spread the Checklist widely and rapidly
- Slide 27 : Resources and Information Available at:
- For more information and helpful resources, visit our website



# Safe Surgery Saves Lives

Surgical Public Health:

The World Health Organization  
(WHO) and the Safe Surgery Saves  
Lives Campaign

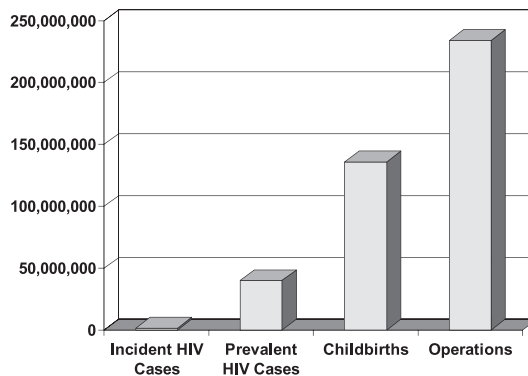
Your Name



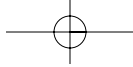
### 3 Central Problems in Surgical Safety

1. Unrecognized as a public health issue
2. Lack of data on surgery and outcomes
3. Failure to use existing safety know-how

#### Problem 1: Unrecognized as public health issue



234 million operations are done globally each year

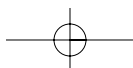


## Problem 1: Unrecognized as public health issue (cont.)

- Burden of surgical disease is increasing worldwide
  - Cardiovascular disease
  - Traumatic injuries
  - Cancer
  - Longer life expectancies

## Problem 1: Unrecognized as public health issue (cont.)

- Known surgical complications of 3-16% = At least 7 million disabling complications – including 1 million deaths – worldwide each year
- Known death rates of 0.4-0.8%



## Problem 2: Lack of Data on Surgery and Outcomes

- Improvements in maternal mortality depended on routine surveillance
- Such surveillance is lacking for surgical care

## Problem 3: Failure to use existing safety know-how

- High rates of preventable surgical site infection result from inconsistent timing of antibiotic prophylaxis
- Anesthetic complications are 100-1000x higher in countries that do not adhere to monitoring standards
- Wrong-patient, wrong-site operations persist despite high publicity of such events

## The Safe Surgery Saves Lives Strategy

1. Promotion of surgical safety as a public health issue
2. Creation of a checklist to improve the standards of surgical safety
3. Collection of “Surgical Vital Statistics”

## WHO’s 10 Objectives for Safe Surgery

1. The team will operate on the correct patient at the correct site.
2. The team will use methods known to prevent harm from administration of anaesthetics, while protecting the patient from pain.
3. The team will recognize and effectively prepare for life-threatening loss of airway or respiratory function.
4. The team will recognize and effectively prepare for risk of high blood loss.
5. The team will avoid inducing an allergic or adverse drug reaction for which the patient is known to be at significant risk.

## WHO's 10 Objectives for Safe Surgery (cont.)

6. The team will consistently use methods known to minimize the risk for surgical site infection.
7. The team will prevent inadvertent retention of instruments or sponges in surgical wounds.
8. The team will secure and accurately identify all surgical specimens.
9. The team will effectively communicate and exchange critical information for the safe conduct of the operation.
10. Hospitals and public health systems will establish routine surveillance of surgical capacity, volume and results.

## Reality Check

Currently, hospitals do **MOST** of the right things, on **MOST** patients, **MOST** of the time.

The Checklist helps us do **ALL** the right things, on **ALL** patients, **ALL** the time

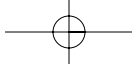
## Advantages of Using a Checklist

- **Customizable** to local setting and needs
- **Supported** by evidence
- **Evaluated** in diverse settings around the world
- **Promotes** adherence to established safety practices
- **Minimal resources** required to implement a far-reaching safety intervention

## What is this tool that addresses the 10 objectives?

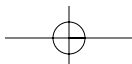
World Health Organization		
SURGICAL SAFETY CHECKLIST (FIRST EDITION)		
Before induction of anaesthesia	Before skin incision	Before patient leaves operating room
<b>SIGN IN</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> PATIENT HAS CONFIRMED           <ul style="list-style-type: none"> <li>• GENTLY</li> <li>• SITE</li> <li>• PROCEDURE</li> <li>• CORRECT</li> </ul> </li> <li><input type="checkbox"/> SITE MARKED/NOT APPLICABLE</li> <li><input type="checkbox"/> ANAESTHESIA SAFETY CHECK COMPLETED</li> <li><input type="checkbox"/> PULSE OXIMETER ON PATIENT AND FUNCTIONING</li> </ul> <p>DOES PATIENT HAVE A:</p> <p>KNOWN ALLERGY?</p> <p><input type="checkbox"/> NO</p> <p><input type="checkbox"/> YES</p> <p>DIFFICULT AIRWAY/ASPIRATION RISK?</p> <p><input type="checkbox"/> NO</p> <p><input type="checkbox"/> YES, AND EQUIPMENT/ASSISTANCE AVAILABLE</p> <p>RISK OF I-RRMAL BLOOD LOSS (DRAINAGE IN CHILDREN)?</p> <p><input type="checkbox"/> NO</p> <p><input type="checkbox"/> YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED</p>	<b>TIME OUT</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE</li> <li><input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM           <ul style="list-style-type: none"> <li>• PATIENT</li> <li>• SITE</li> <li>• PROCEDURE</li> </ul> </li> </ul> <p>ANTICIPATED CRITICAL EVENTS</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?</li> <li><input type="checkbox"/> ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?</li> <li><input type="checkbox"/> NURSING TEAM REVIEWS: HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?</li> </ul> <p>HAS ANTIBIOTIC PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?</p> <p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> NOT APPLICABLE</p> <p>IS ESSENTIAL IMAGING DISPLAYED?</p> <p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> NOT APPLICABLE</p>	<b>SIGN OUT</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> NURSE VERBALLY CONFIRMS WITH THE TEAM</li> <li><input type="checkbox"/> THE NAME OF THE PROCEDURE RECORDED</li> <li><input type="checkbox"/> THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)</li> <li><input type="checkbox"/> HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)</li> <li><input type="checkbox"/> WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED</li> <li><input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT</li> </ul>

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



SIGN IN	
<input type="checkbox"/>	PATIENT HAS CONFIRMED <ul style="list-style-type: none"> <li>• IDENTITY</li> <li>• SITE</li> <li>• PROCEDURE</li> <li>• CONSENT</li> </ul>
<input type="checkbox"/>	SITE MARKED/NOT APPLICABLE
<input type="checkbox"/>	ANAESTHESIA SAFETY CHECK COMPLETED
<input type="checkbox"/>	PULSE OXIMETER ON PATIENT AND FUNCTIONING
DOES PATIENT HAVE A:	
KNOWN ALLERGY?	
<input type="checkbox"/>	NO
<input type="checkbox"/>	YES
DIFFICULT AIRWAY/ASPIRATION RISK?	
<input type="checkbox"/>	NO
<input type="checkbox"/>	YES, AND EQUIPMENT/ASSISTANCE AVAILABLE
RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?	
<input type="checkbox"/>	NO
<input type="checkbox"/>	YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

TIME OUT	
<input type="checkbox"/>	CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE
<input type="checkbox"/>	SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM <ul style="list-style-type: none"> <li>• PATIENT</li> <li>• SITE</li> <li>• PROCEDURE</li> </ul>
ANTICIPATED CRITICAL EVENTS	
<input type="checkbox"/>	SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
<input type="checkbox"/>	ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
<input type="checkbox"/>	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?	
<input type="checkbox"/>	YES
<input type="checkbox"/>	NOT APPLICABLE
IS ESSENTIAL IMAGING DISPLAYED?	
<input type="checkbox"/>	YES
<input type="checkbox"/>	NOT APPLICABLE



**SIGN OUT**

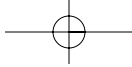
NURSE VERBALLY CONFIRMS WITH THE TEAM:

- 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

## The Checklist was piloted in 8 cities

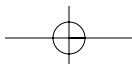






SIGN IN	
<input type="checkbox"/>	PATIENT HAS CONFIRMED <ul style="list-style-type: none"> <li>• IDENTITY</li> <li>• SITE</li> <li>• PROCEDURE</li> <li>• CONSENT</li> </ul>
<input type="checkbox"/>	SITE MARKED/NOT APPLICABLE
<input type="checkbox"/>	ANAESTHESIA SAFETY CHECK COMPLETED
<input type="checkbox"/>	PULSE OXIMETER ON PATIENT AND FUNCTIONING
DOES PATIENT HAVE A:	
KNOWN ALLERGY?	
<input type="checkbox"/>	NO
<input type="checkbox"/>	YES
DIFFICULT AIRWAY/ASPIRATION RISK?	
<input type="checkbox"/>	NO
<input type="checkbox"/>	YES, AND EQUIPMENT/ASSISTANCE AVAILABLE
RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?	
<input type="checkbox"/>	NO
<input type="checkbox"/>	YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

TIME OUT	
<input type="checkbox"/>	CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE
<input type="checkbox"/>	SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM <ul style="list-style-type: none"> <li>• PATIENT</li> <li>• SITE</li> <li>• PROCEDURE</li> </ul>
ANTICIPATED CRITICAL EVENTS	
<input type="checkbox"/>	SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?
<input type="checkbox"/>	ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?
<input type="checkbox"/>	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?	
<input type="checkbox"/>	YES
<input type="checkbox"/>	NOT APPLICABLE
IS ESSENTIAL IMAGING DISPLAYED?	
<input type="checkbox"/>	YES
<input type="checkbox"/>	NOT APPLICABLE



## Results

- Increased rate of adherence to basic standards from 36% to 68% – in some hospitals to almost 100%.
- Resulted in substantial reductions in mortality and morbidity

Source: [www.safesurg.org](http://www.safesurg.org)

## What problems does this checklist address?

### Sign In:

- PATIENT HAS CONFIRMED
- IDENTITY
  - SITE
  - PROCEDURE
  - CONSENT

- SITE MARKED/NOT APPLICABLE

### Time Out:

- SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM
- PATIENT
  - SITE
  - PROCEDURE

### Sign Out:

- NURSE VERBALLY CONFIRMS WITH THE TEAM:
- THE NAME OF THE PROCEDURE RECORDED

- Correct patient, operation and operative site

– There are between 1500 and 2500 wrong site surgery incidents every year in the US.<sup>1</sup>

– In a survey of 1050 hand surgeons, 21% reported having performed wrong-site surgery at least once in their career.<sup>2</sup>

<sup>1</sup> Seiden, Archives of Surgery, 2006.

<sup>2</sup> Joint Commission, Sentinel Event Statistics, 2006.

## What problems does this checklist address? (cont.)

### Sign In:

- ANAESTHESIA SAFETY CHECK COMPLETED
- PULSE OXIMETER ON PATIENT AND FUNCTIONING

- DOES PATIENT HAVE A:  
DIFFICULT AIRWAY/ASPIRATION RISK?
- NO
  - YES, AND EQUIPMENT/ASSISTANCE AVAILABLE

### Time Out:

- ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?

### • Safe Anaesthesia and Resuscitation

- An analysis of 1256 incidents involving general anaesthesia in Australia showed that pulse oximetry on its own would have detected 82% of them.<sup>1</sup>

<sup>1</sup> Webb, Anaesthesia and Intensive Care, 1993.

## What problems does this checklist address? (cont.)

### Time Out:

- 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

### • Minimizing risk of infection

- Giving antibiotics within one hour before incision can cut the risk of surgical site infection by 50%<sup>1, 2</sup>
- In the eight evaluation sites, failure to give antibiotics on time occurred in almost one half of surgical patients who would otherwise benefit from timely administration

<sup>1</sup> Bratzler, The American Journal of Surgery, 2005.

<sup>2</sup> Classen, New England Journal of Medicine, 1992.

## What problems does this checklist address? (cont.)

Time Out:

- CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE

Sign Out:

- SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT

### • Effective Teamwork

- Communication is a root cause of nearly 70% of the events reported to the Joint Commission from 1995-2005.<sup>1</sup>
- A preoperative team briefing was associated with enhanced prophylactic antibiotic choice and timing, and appropriate maintenance of intraoperative temperature and glycemia.<sup>2, 3</sup>

<sup>1</sup> Joint Commission, Sentinel Event Statistics, 2006.

<sup>2</sup> Makary, Joint Commission Journal on Quality and Patient Safety, 2006.

<sup>3</sup> Allpeter, Journal of the American College of Surgeons, 2007.

## Data Collection at a National Level (Surgical Vital Statistics)

- Number of surgical procedures performed in the operating theatre per 100,000 population per year
- Number of Operating Theatres per 100,000 population
- Number of surgeons per 100,000 population
- Number of anesthesia professionals per 100,000 population
- Day-of-surgery mortality rate
- Postoperative in-hospital mortality rate

## Goals of the Safe Surgery Saves Lives Program

- Enroll 250 hospitals in the program by January 1st, 2009 and 2,500 hospitals by 2010.
- Enroll hospitals in countries representing one fourth of the world's population by 2009 and representing half of the world's population by 2010.
- Collect surgical vital statistics for one country in each WHO region by 2010

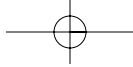
## Easy Math

234 million people are operated on each year, and >1 million of these individuals die from complications

+ At least  $\frac{1}{2}$  are avoidable with the Checklist

---

500,000 lives on the line each year

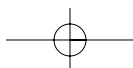
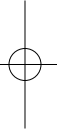
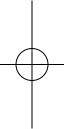


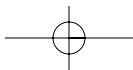
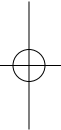
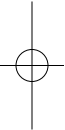
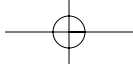
## Resources & Information Available at:

[www.who.int/safesurgery](http://www.who.int/safesurgery)

[www.safesurg.org](http://www.safesurg.org)

- Checklist
- Brochure
- FAQ
- How-to videos
- Implementation Manual
- Guidelines
- Starter Kit

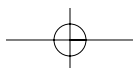




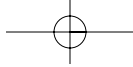


# 7.2

## ***Presentation 2*** **'Safe Surgery Saves Lives'** **Implementation Strategy** **(WHO Recommendations)**





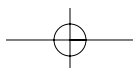


# SSSL Implementation Strategy

WHO Recommendations

## Purpose of Checklist

- Enabling consistency in safety for patients
- Introducing (or maintaining) a culture that values achieving it.



## **Building a team**

- Commitment by team members is essential.
- Tell your colleagues about the checklist
- Start with those who are likely to be most supportive.
- Identify a core group to involve at least one member from each of the clinical disciplines.
- Work with those who are interested, rather than trying to change the most resistant people.

## **Meet with hospital leaders**

- 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**

- Run a campaign in specific settings
- 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 - one operating room with one team
- move forward after problems have been addressed and when enthusiasm builds.

## **Use the checklist**

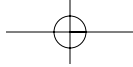
- Core team members must be using the checklist in their own operating rooms!
- Slowly encourage others to adopt the checklist
- Work through potential concerns.
- Do not hesitate to customize the checklist for your setting as necessary, but do not remove safety steps just because you are unable to accomplish 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? (process)
  - How many patients get surgical site infections? (outcome)

## 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.

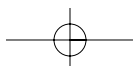


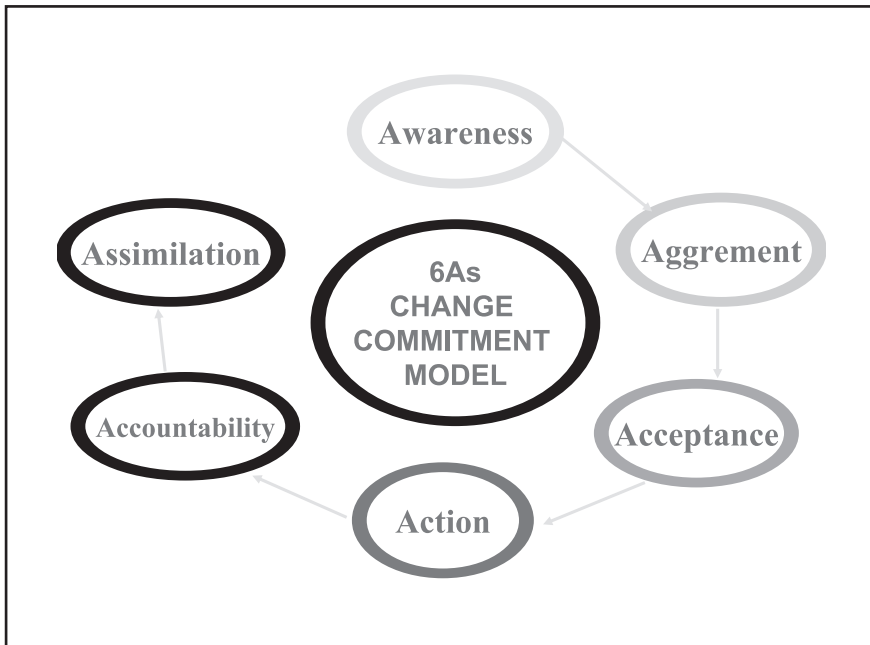
## **Update the hospital on progress**

- 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](mailto:safesurgery@hsph.harvard.edu).



We can also  
have our own

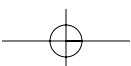
# Safe Surgery Annual Meeting



# 7.3

## ***Presentation 3***

Ministry of Health Malaysia  
'Safe Surgery Saves Lives Initiative'





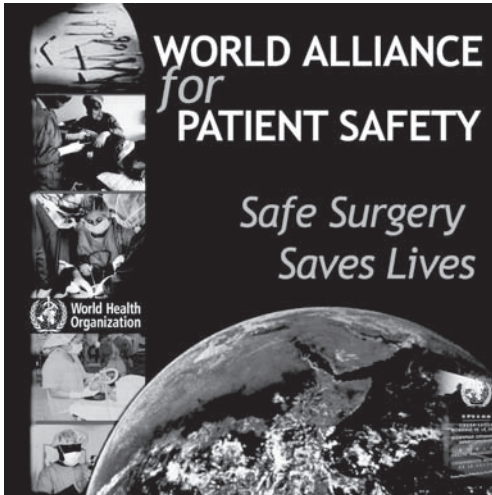


# Ministry of Health Malaysia

## Safe Surgery Saves Lives

**Dato' Dr. Abd Jamil Abdullah**

Chairman Safe Surgery Saves Lives Initiative  
Head of Surgery  
Hospital Sultanah Nur Zahirah  
Kuala Terengganu



An initiative established by World Alliance For Patient Safety (WAPS) 2004 as part of WHO's efforts to reduce the number of surgical deaths in the world

## Aims of Initiative

- To harness **political commitment and clinical will** to address important safety issues, which includes :-
  - Inadequate anaesthetic safety practices
  - Avoidable surgical infection and
  - Poor communication among team members

## The Safe Surgery Saves Lives Strategy

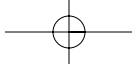
1. Promotion of surgical safety as a public health issue
2. Creation of a checklist to improve the standards of surgical safety
3. Collection of “Surgical Vital Statistics”

The surgical setting is one of the most potentially hazardous of clinical environments



### WHO's 10 Objectives for Safe Surgery

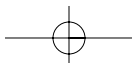
1. The team will operate on the correct patient at the correct site.
2. The team will use methods known to prevent harm from administration of anaesthetics, while protecting the patient from pain.
3. The team will recognize and effectively prepare for life-threatening loss of airway or respiratory function.
4. The team will recognize and effectively prepare for risk of high blood loss.
5. The team will avoid inducing an allergic or adverse drug reaction for which the patient is known to be at significant risk.



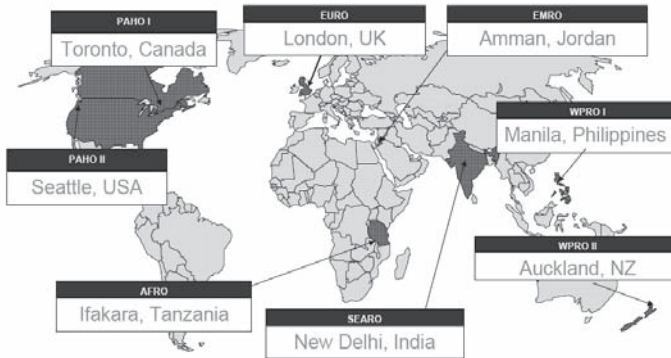
## WHO's 10 Objectives for Safe Surgery (cont.)

6. The team will consistently use methods known to minimize the risk for surgical site infection.
7. The team will prevent inadvertent retention of instruments or sponges in surgical wounds.
8. The team will secure and accurately identify all surgical specimens.
9. The team will effectively communicate and exchange critical information for the safe conduct of the operation.
10. Hospitals and public health systems will establish routine surveillance of surgical capacity, volume and results.

WHO SURGICAL SAFETY CHECKLIST		
PRIOR TO INDUCTION OF ANAESTHESIA	PRIOR TO SKIN INCISION	PRIOR TO PATIENT LEAVING THE OPERATING THEATRE
<p><b>SIGN IN</b></p> <p><input type="checkbox"/> PATIENT CONFIRMED</p> <ul style="list-style-type: none"> <li>• IDENTITY</li> <li>• SITE</li> <li>• PROCEDURE</li> <li>• CONSENT</li> </ul> <p><input type="checkbox"/> SITE MARKED / NOT APPLICABLE</p> <p><input type="checkbox"/> ANAESTHESIA SAFETY CHECK COMPLETED</p> <p><input type="checkbox"/> PULSE OXIMETER ON PATIENT AND FUNCTIONING</p> <p><i>Does patient have a:</i></p> <p>KNOWN ALLERGY?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes</p> <p>DIFFICULT AIRWAY / ASPIRATION RISK?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, AND EQUIPMENT / ASSISTANCE AVAILABLE</p> <p>RISK OF &gt; 500CC BLOOD LOSS (7cc in children)?</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Yes, AND IV ACCESS AND FLUIDS PLANNED</p>	<p><b>TIME OUT</b></p> <p><input type="checkbox"/> CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE</p> <p><input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM</p> <ul style="list-style-type: none"> <li>• Patient</li> <li>• Site</li> <li>• Procedure</li> <li>• Position</li> </ul> <p>ANTICIPATED CRITICAL EVENTS</p> <p><input type="checkbox"/> SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?</p> <p><input type="checkbox"/> ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?</p> <p><input type="checkbox"/> NURSING TEAM REVIEWS: HAS STERILITY BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?</p> <p>ANTIBIOTIC PROPHYLAXIS GIVEN IN LAST 60 MINUTES?</p> <p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> NOT APPLICABLE</p> <p>ESSENTIAL IMAGING DISPLAYED?</p> <p><input type="checkbox"/> YES</p> <p><input type="checkbox"/> NOT APPLICABLE</p> <p><input type="checkbox"/> OTHER CHECKS: _____</p>	<p><b>SIGN OUT</b></p> <p>NURSE VERBALLY CONFIRMS WITH THE TEAM:</p> <p><input type="checkbox"/> THE NAME OF THE PROCEDURE RECORDED</p> <p><input type="checkbox"/> THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)</p> <p><input type="checkbox"/> HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)</p> <p><input type="checkbox"/> WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED</p> <p><input type="checkbox"/> SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE PARTICULAR CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT?</p>
SIGNATURE (ON BEHALF OF ENTIRE TEAM)		DATE



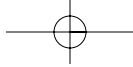
## The Checklist was piloted in 8 cities



## Preliminary Pilot Site Results

Site	Cases	Use of Pulse Oximeter	Time Out to Confirm Site/Pt	Objective Airway Evaluation	Antibx at 0-60 mins	IV Access >500 cc EBL
1	377	100%	100%	96%	98%	93%
2	317	97%	8.8%	74%	52%	73%
3	232	96%	100%	9.5%	34%	7%
4	496	77%	22%	45%	25%	49%
5	338	97%	50%	72%	75%	80%
6	524	99%	99%	98%	48%	32%
7	519	100%	99%	95%	78%	67%
8	446	99%	17%	0.5%	18%	73%

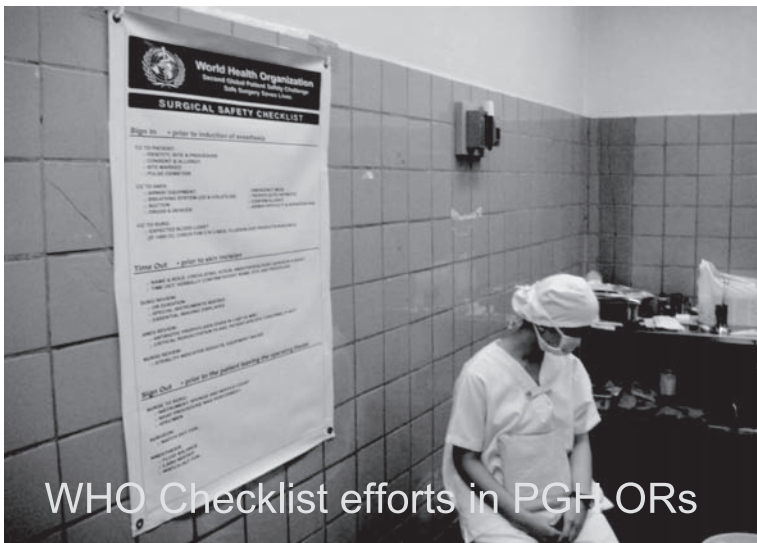
Total Cases 3234



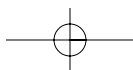
## Results

- Increased rate of adherence to basic standards from 36% to 68% – in some hospitals to almost 100%.
- Resulted in substantial reductions in mortality and morbidity

Source: [www.safesurg.org](http://www.safesurg.org)



WHO Checklist efforts in PGH ORs



## PGH Interim Data

	PRE	POST
Cases	496	500
Patient Confirmation	21.77%	64.89%
Antibx at 0-60 Minutes	25.40%	55.17%
Airway Evaluation	46.17%	58.4%
2 IVs for 500cc Blood Loss	49.23%	64%
Sponge Count	99.40%	99.8%
Complication	10.08%	7.2%
Death	3.63%	1.4%

## Survey of Clinicians

- 78% thought it was easy to use
- 79% thought it improved care
- 18% thought it took a long time
- 84% thought it improved communication
- 78% thought it reduced errors
- 93% would want a checklist used if they were having surgery

Berita CSM, Feb 08, Haynes AB

# In Ministry of Health Malaysia

## The POMR Committee

- Mandate to carry out SSSL initiative given by Malaysian Patient Safety Council in May 2008
- Peer Review Audit Committee started in 1992
- Looks at all post-operative deaths in selected MOH Hospitals
- Is in a position to carry out Safe Surgery initiatives
  - multiple surgical disciplines + anaesthetist
  - Data collection in place

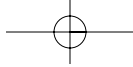


## Surgical Volume & POM

Year	No of Op	POM	Rate
2000	234, 553	1, 274	0.54 %
2001	232, 592	1, 452	0.62 %
2003	209, 643	1, 804	0.86 %
2004	216, 926	2, 164	1.00 %

## The Malaysian Theme

- 'Safer Surgery through Better Communication'
- OBJECTIVES
  - To improve understanding of the surgery process by patients and relatives
  - To improve communication between operating team members
  - Improve rapport between patient and the operating team



# Universal Protocol for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery

**Dennis S. O’Leary, M.D.**

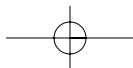
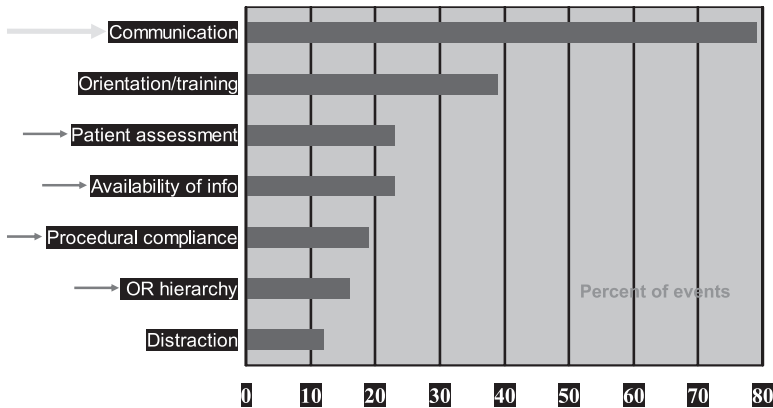
**President**

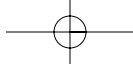
**Joint Commission on Accreditation of Healthcare  
Organisations (JCAHO)**



19

## Root Causes of Wrong Site Surgery (1995-2003)





VOL 63, NO 10/OCTOBER 2007 Contemporary Surgery ©2007 Dowden Health Media  
**REAL WORLD**

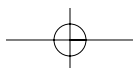
## **A stepwise approach to make every case safe**



**Richard C. Karl, MD**  
*Richard G. Connor Professor  
and Chairman, Department of  
Surgery, University of South  
Florida, Tampa*

Understanding human factors and effective  
communication can develop a culture of safety.

## **Modifications to the Check List**





## Time Out (Before Incision)

- Team checks
  - Patient's ID
  - Type of procedure
  - Site, side
- Implants
- Antibiotics
- X-Rays
- **??Surgeon**

## The team & theme

TIME OUT		
		"WHITE BOARD" written
		<b>TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE</b>

## WHITE BOARD

- The formal 'TEAM'
- Focal point
- CONTENTS
  - Patient's Name
  - Proposed operation
  - Location or laterality of operation
  - Team Member's name
  - Special instructions/Reminders
    - Position, Antibiotics, Equipment/Implants, Tourniquet time



## Additions to checklist

### **DURING PROCEDURE**

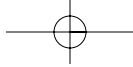
#### **INTRA OP COMMUNICATION**

**CHECK-IN**

**PERIODIC UPDATES**

**SHOUT - OUT**

**PRE-CLOSURE DISCLOSURE**



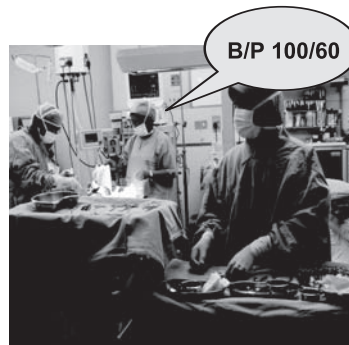
## Intra-op Communications

- Check-In
- Intermittent report
- `Shout it Out`
- Pre Closure disclosure

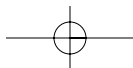


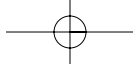
## Intra op. communication

### ‘Shout out’



### ‘Intermittent communication’





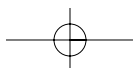
## Pre-Closure Disclosure

- Final swab count
- Closing sutures
- Prepare reversal
- Plan for the next case



## Additions to checklist

### **SIGN OUT**



## Informing Relatives

- Informing of progress
- Showing of specimen

### Additional recommendation : Peri-Operative Review by operating surgeon / team

- Final pre-op check – new findings
- Last minute questions
- Will definitely improve communication with patients and relatives
- Confidence & rapport





## Pilot launch – 5 Feb 2009

### TESTING FORMS AND ACCEPTANCE

- HRPZ II and all hospitals in Kelantan
- Hospital Kemaman
- Hospital Pulau Pinang
- Hospital Raja Permaisuri Bainun, Ipoh
- Hospital Teluk Intan
- Hospital DOK, Sandakan

### Usage of checklist

Hospital	Pre-GA Check	Time Out	Sign Out	Pre-Op Visit	Post Op Visit
Hospital Pulau Pinang	100	100	100	100	96
Hospital Ipoh	98	90	-	79	57
HRPZ II	85	60-90	92	89	83
Hospital Teluk Intan	90+	90+	90+	67	67
Duchess of Kent Sandakan	100	100	100	100	100
Hospital Kemaman	100	100	100	99	91

## Additional efforts

- Review existing nursing forms
- Inco-operate existing forms into one
- New form will just be another work process that they'd get used to

SSSL\_POCL\_09 VER 1.0

### PERI-OPERATIVE CHECK LIST

#### PRE-OPERATIVE CHECK LIST

##### PATIENT PROFILE

(To be filled by Ward Staff)

Name : ..... I.C. no. : .....

Age : ..... Sex : ..... Race : ..... Reg. no. : .....

Unit : ..... Ward : ..... Weight : .....

Diagnosis : .....

Operation : .....

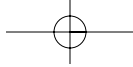
Checked by (Ward Staff) : ..... Date : ..... Contact person &amp; HP No. : .....

##### PRE-TRANSFER CHECK

(Is done by the Ward Nurse before sending patient to OT and at Reception Area in OT by the OT Reception Nurse)

	Ward	OT	Remarks
1. Patient's Name <input type="checkbox"/> Identity Tag <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Consent for <input type="checkbox"/> Surgery <input type="checkbox"/> Anaesthesia <input type="checkbox"/> Transfusion	<input type="checkbox"/>	<input type="checkbox"/>	
3. Check side of operation <input type="checkbox"/> LEFT <input type="checkbox"/> RIGHT <input type="checkbox"/> NA	<input type="checkbox"/>	<input type="checkbox"/>	
4. Site (location) of operation marked? <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA	<input type="checkbox"/>	<input type="checkbox"/>	
5. Last meal : Date ..... Time .....	<input type="checkbox"/>	<input type="checkbox"/>	
6. Check for dentures, jewellery, contact lenses etc:	<input type="checkbox"/>	<input type="checkbox"/>	
7. Premedication (write drug given)	<input type="checkbox"/>	<input type="checkbox"/>	

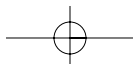


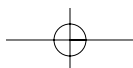
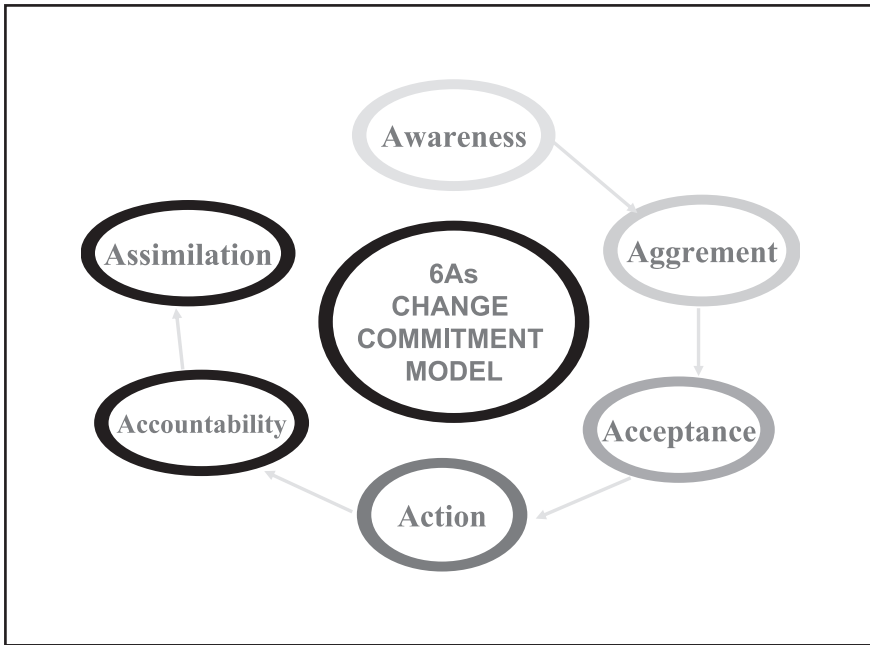
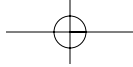


PRE-DISCHARGE CHECK		
(Is done by the Ward Nurse with the Recovery Nurse before the patient leaves the OT)		
	Checked	Remarks
1. Patient's name <input type="checkbox"/> Identity tag <input type="checkbox"/>	<input type="checkbox"/>	
2. Consciousness level <input type="checkbox"/> Alert <input type="checkbox"/> Drowsy <input type="checkbox"/> Intubated	<input type="checkbox"/>	
3. Inform vital signs & pain score	<input type="checkbox"/>	
4. Check operative site / dressing	<input type="checkbox"/>	
5. Check drains, tubes and urinary catheter	<input type="checkbox"/>	
6. Check IV lines and infusions	<input type="checkbox"/>	
7. Blood used and unused	<input type="checkbox"/>	
8. Specimens	<input type="checkbox"/>	
9. Case notes <input type="checkbox"/> Otd notes <input type="checkbox"/> X-rays <input type="checkbox"/> Operative notes <input type="checkbox"/> GA form <input type="checkbox"/>	<input type="checkbox"/>	
10. Check post-operative pain relief order	<input type="checkbox"/>	
11.	<input type="checkbox"/>	
12.	<input type="checkbox"/>	
13.	<input type="checkbox"/>	
14.	<input type="checkbox"/>	
15.	<input type="checkbox"/>	

## Summary

- SSSL initiative is fairly new to Malaysia
- Response to the effort has been encouraging
- May have to start as a `directive`
- Make safety culture the goal

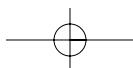






8.0

Appendices



## Appendix 1

### WHO'S 10 OBJECTIVES FOR SAFE SURGERY

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1. The team will operate on the correct patient at the correct site.
2. The team will use methods known to prevent harm from anaesthetic administration, while protecting the patient from pain.
3. The team will recognize and effectively prepare for life-threatening loss of airway or respiratory function.
4. The team will recognize and effectively prepare for risk of high blood loss.
5. The team will avoid inducing any allergic or adverse drug reaction known to be a significant risk for the patient.
6. The team will consistently use methods known to minimize risk of surgical site infection.
7. The team will prevent inadvertent retention of instruments or sponges in surgical wounds.
8. The team will secure and accurately identify all surgical specimens.
9. The team will effectively communicate and exchange critical patient information for the safe conduct of the operation.
10. Hospitals and public health systems will establish routine surveillance of surgical capacity, volume, and results.

### REFERENCE

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Selected bibliography supporting the ten essential objectives for safe surgery  
[http://www.who.int/patientsafety/safesurgery/knowledge\\_base/bibliography/en/index.html](http://www.who.int/patientsafety/safesurgery/knowledge_base/bibliography/en/index.html)





