NATIONAL OPERATING ROOM NURSING AUDIT (NORNA)

ELEMENT 5: **CONTINUUM OF CARE**

5.7 SCRUBBING, GOWNING AND GLOVING

1. INTRODUCTION

Scrubbing, gowning, and gloving are vital steps before surgery, and the standard of practice must be adhered to in order to prevent infection. Operating theatre nurses need to maintain competency in these procedures because the skin can never be completely sterilized. Therefore, scrubbing, gowning, and gloving must be performed correctly before participating in surgery (AORN, 2019; Phillips, 2024).

2. OBJECTIVES

2.1 To maintain sterility.

2.2 To ensure scrub nurses perform proper technique of scrubbing, gowning and gloving.

2.3 To prevent surgical site infection (SSI).

3. METHODOLOGY

3.1	Design	:	Direct observation of Scrubbing, Gowning and Gloving.
3.2	Setting	:	Operating Room
3.3	Inclusion criteria	:	All scrub nurses
3.4	Exclusion criteria	:	-
3.5	Population	:	Scrub Nurse

3.6 Sample design : Convenient sampling

3.7 Sample size : 50% of scrub nurse working in Operation Theatre (OT)

3.8 Frequency : Twice per year

3.9 Duration : 2 months

4.0 Instrument : Check list (E5 AF 5.7 Pind.1/2026)

4. STANDARD

100% compliance with the standard principles of scrubbing, gowning, and gloving.

5. DEFINITION OF OPERATIONAL TERMS

NO	TERMS	DEFINITIONS
1.	HAND SCRUBBING	The procedure involves the scrub nurse using an antimicrobial cleansing solution to scrub her hands up to 5 cm above the elbow, employing circular and friction motions (AORN, 2019; Phillips, 2024).
2.	SURGICAL HAND WASHING	The procedure involves the scrub nurse using an antimicrobial cleansing solution to scrub her hands up to 5 cm above the elbow (AORN, 2019; Phillips, 2024).
3.	HAND WASHING	The procedure involves the scrub nurse using an antimicrobial cleansing solution to scrub her hands up to 5 cm above the wrist (AORN, 2019; Phillips, 2024).
4.	STERILE BRUSH	A brush used to scrub the fingernails is packed and sterilized (AORN, 2019; Phillips, 2024).
5.	STERILE GOWN	A gown that has been packed and sterilized is used during surgery (AORN, 2019; Phillips, 2024).

6.	STERILE SURGICAL GLOVES	Pre-packed sterile gloves used during surgery. *closed method - hands remain inside the sleeves of a gown *open method - donning for 2nd glove after closed method gloving. (AORN, 2019; Phillips, 2024).

6. WORK PROCESS

Structure

Scrub room

1. Antimicrobial cleansing solution.
2. Sterile Brush
3. Goggle
4. Face Mask
5. Plastic Apron.
6. Sterile Gown
7. Sterile Gloves

Process

1. **PRE-SCRUBBING:**
   a. Finger nails must be short and no abrasions on skin.
   b. Remove watch, ring and all jewellery.
   c. Wear surgical face mask and plastic apron
   d. Fold up sleeves of OT attire to >5 cm above the elbow.

2. **SCRUBBING PROCESS**

Initial Surgical Hand Washing

a. Wet hands until 5 cm above elbow.
b. Dispense a small amount of anti-microbial cleansing solution on palm of hand.

c. Perform initial hand washing to 5 cm above the elbow.
d. Rinse hands thoroughly underrunning water with hands upright.

Hand Scrubbing

a. Pick a sterile brush.
b. Dispense a small amount of anti-microbial cleansing solution on the brush.
c. Brush the fingernails of one hand then rinse. Repeat for the other hand.
d. Drop the brush.
e. Dispense a small amount of anti-microbial cleansing solution and perform friction for each finger. Apply to each finger for the other hand.
f. Dispense a small amount of anti-microbial cleansing solution on the palm. Perform correct hand scrubbing technique using circular and friction motion
g. Rinse both hand (Rinse hand that you apply hand scrubbing first, then followed by the other hand)

Hand Washing

a. Apply antimicrobial agent on the palm. Perform hand washing until 5cm above the wrist.
b. Rinse both hands thoroughly

3. **GOWNING**

a. Scrub Nurse open second layer of sterile gown packs.
b. Dap hand with sterile hand towel correctly
c. Hold and wear the sterile gown with minimal touching.
d. Don gown correctly.

4. **GLOVING**

Closed Method Gloving

a. Keep hands well within the sleeves.
b. Pick the right-side glove using the left hand.
c. Place glove to the palm and fingers of glove pointing towards wearer.

d. Right thumb of glove parallel to right thumb of the hand
e. Stretch and unfold the cuff and pull the glove to cover the sleeves.
f. Repeat the procedure for the other hand.

5. Tie sterile gown with sterile operating team member.

Outcome

1. Scrub nurses perform correct method of scrubbing, gowning, and gloving.

2. Compliance to aseptic technique.

7. TECHNICAL SPECIFICATION FOR SCRUBBING,GOWNING AND GLOVING

Indicator	Percentage of compliance to the standard principles of scrubbing, gowning, and gloving.
Rationale	• To prevent surgical site infection (SSI) • To ensure scrub nurses perform proper technique of scrubbing,gowning and gloving.
Definition	• Scrubbing is a procedure whereby the scrub nurse uses antimicrobial cleansing solution to scrub her/ his hands and forearms • Sterile brush is a brush used to scrub fingernails. It is packed and sterilized. • Sterile gown is a gown which has been packed and sterilized and used during surgery. • Sterile surgical gloves are pre-packed sterile gloves used during surgery (AORN, 2019; Phillips, 2024).
Criteria	**Inclusion:** All Scrub Nurses.
Numerator	Total conformance of items
Denominator	Total number of items – Total number of items marked as NA

Formula	$\frac{\text{Numerator}}{\text{Denominator}} \times 100\%$
Standard	**100%**
Data Collection	1. **Where:** Data will be collected at scrub room and operating room. 2. **Who:** Data will be collected by the NORNA committee in hospital. 3. **How to collect:** Audit Form (E5 AF 5.7 Pind.1/2026). 4. **How frequent:** Twice a year and duration 2 months. 5. **Who should verify:** All data must be verified by the Head of Nursing.
References	1. Association of peri Operative Registered Nurses (Ed.). (2019)*Guidelines for perioperative practice* (2019 ed.; A. Wood, Ed.). AORN, Inc. 2. Phillips, N. (2024). *Berry & Kohn's operating room technique* [E-book]. Amazon. https://www.amazon.com/Berry-Kohns-Operating-Technique-ebook/dp/B0D7M4WXWV

8. AUDIT FORM

NATIONAL OPERATING ROOM NURSING AUDIT			VERSION 8/ Pind.1/2026
ELEMENT 5	:	PERIOPERATIVE CONTINUUM OF CARE	
TOPIC	:	5.7 SCRUBBING, GOWNING AND GLOVING	DATE: 15 JAN 2026
DOCUMENT NO	:	E5 AF 5.7 Pind.1/2026	

OBJECTIVES

1. To prevent surgical site infection.
2. To ensure scrub nurses perform proper technique of scrubbing, gowning and gloving.

STANDARD : 100% compliance with the standard principles of scrubbing, gowning, and gloving

Date of Audit : .....

Locality : .....

Auditor : .....

Auditee : .....

N.B. Instructions for Auditors

1. To tick [√] at appropriate column.

S/N	ITEM	SOURCE OF INFORMATION	YES	NO	NA
T1	**Pre-Scrubbing:**				
	T1.1 Fingernails should not reach beyond the fingertip (short)	Observe nurse			
	T1.2 No watch, ring and jewellery.	Observe nurse			
	T1.3 Wear surgical face mask and plastic apron	Observe nurse			
	T1.4 Sleeves of OT attire folded up to 5 cm above the elbow.	Observe nurse.			
T2	**Scrubbing Process Initial surgical Hand washing**				
	T2.1 Wet hands until 5 cm above elbow.	Observe nurse			
	T2.2 Dispense a small amount of anti-microbial cleansing agent on palm of hand.	Observe nurse.			
	T2.3 Perform initial hand washing to 5 cm above the elbow.	Observe nurse.			
	T2.4 Rinse hands thoroughly under	Observe nurse.			

	running water with hands upright.				
	Hand Scrubbing				
	T2.5 Pick a sterile brush	Observe nurse			
	T2.6 Dispense a small amount of anti-microbial cleansing agent on the sterile brush.	Observe nurse			
	T2.7 Brush the fingernails of one hand then rinse. Repeat for the other hand.	Observe nurse.			
	T2.8 Drop the scrub brush.	Observe nurse.			
	T2.9 Dispense a small amount of anti-microbial cleansing agent and perform friction for each finger. Apply to each finger for the other hand.	Observe nurse.			
	T2.10 Dispense a small amount of anti-microbial cleansing agent on the palm. Perform correct hand scrubbing technique using circular and friction motion	Observe nurse			
	T2.11 Rinse both hand (Rinse hand that you apply hand scrubbing first, then followed by	Observe nurse			

	the other hand)				
	Surgical Hand Washing T2.12 Apply antimicrobial agent on the palm. Perform hand washing until 5cm above the wrist.	Observe nurse			
	T2.13 Rinse both hands thoroughly	Observe nurse			
T3	**Gowning:** T3.1 Scrub Nurse open second layer of sterile gown packs.	Observe nurse			
	T3.2 Dap hands with sterile hand towel correctly.	Observe nurse.			
	T3.3 Hold and wear the sterile gown with minimal touching	Observe nurse.			
	T3.4 Don gown correctly	Observe nurse.			
T4	**Gloving:** Closed Method Gloving T4.1 Keep hands well within the sleeves.	Observe nurse			
	T4.2 Pick the right side glove using the left hand.	Observe nurse			
	T4.3 Place glove to the palm and fingers of glove pointing towards wearer.	Observe nurse			
	T4.4 Right thumb of glove parallel to right thumb of the hand	Observe nurse			

	T4.5 Stretch and unfold the cuff and pull the glove to cover the sleeves.	Observe nurse			[redacted]
	T4.6 Repeat the procedure for the other hand	Observe nurse			
	Open Method Gloving (2^{nd} layer glove) T4.7 Apply a second layer of gloves using the open method for both hands.	Observe nurse			
T5	Tie sterile gown with sterile operating team member	Observe nurse			[redacted]

AUDIT REPORT

(Please [√] the appropriate box)

Rating:

Criteria	Item	Conformance	Non conformance	Not Applicable
Technical Scrubbing	17			
Technical Gowning	5			
Technical Gloving	7			
Total	**29**			

Calculation: _____ X 100% = _____

REMARKS:

Auditor (name and signature) : …….

*Calculation: $\frac{\text{Total conformance of items}}{\text{Total number of items –Total number of items marked as NA}}$ X 100%

9. REFERENCES

Association of peri Operative Registered Nurses. (2019). *Guidelines for perioperative practice*. Author.

Phillips, N. (2024). *Berry & Kohn's operating room technique* [E-book]. https://www.amazon.com/Berry-Kohns-Operating-Technique-ebook/dp/B0D7M4WXWV