

Annex I. Instruments (questionnaire)

Introduction: This instrument is divided into 3 sections. Section 1 is related to yours Personal data including job satisfaction. Section 2 is your knowledge regarding Perioperative hypothermia prevention (PHP). Section 3 is your practice regarding PHP.

Identification number: _____

I. Socio-demographic, institutional and other characteristics of study participants

1. Gender: Male Female
2. Age: _____
3. Marital status A- Single B- Married C- Divorced D- Widowed
4. Educational level: A- Diploma B- Degree C- Masters
5. Working experience in days/months/years: _____
6. Working place (hospital) _____
7. Working unit or ward: _____
8. Daily working hours _____
9. Monthly salary _____
10. Did you receive any in service training on perioperative hypothermia prevention?
Yes No
11. Do you have guidelines related to hypothermia prevention in your workplace?
Yes No
12. Do you read journals on hypothermia prevention? Yes No
13. Is there any shortage of thermometers? Yes No
14. Is there any other resource constraints, which are important for the prevention of?
Hypothermia prevention? Yes No
15. If yes, what type of resource constraints? You can circle greater than one answer if appropriate

A. Blanket B. Linens C. Fluid warmer D. Air warmer/heater E. Blanket warmer

16. Job satisfaction; Please tick one (✓) as per your choice

Job Satisfaction questions		Strongly Agree 5	Agree 4	Neither 3	Disagree 2	Strongly disagree 1
1	I have a work plan developed with my supervisor					
2	My supervisor gives me feedback to improve my performance					
3	I get the opportunity to be involved in my performance appraisal					
4	my supervisor/head nurse does a good job					
5	I have the opportunity to work independently on my job					
6	I have good feeling towards my job accomplishment					
7	I have a chance for a variety of job responsibilities					
8	There is good flexibility for shift works					
9	I have good relationship with my coworkers					
10	I have good relationship with my supervisor and physicians.					
11	There is good team work spirit in my department					
12	There is good communication between from managers, to employees in the hospital					
13	I got sufficient support during my health problem					
14	There is good safety practice in the hospital					
15	I have a sense of job security					
16	I have the materials and equipment that need to do my work right.					
17	The mission of my organization makes me feel my job is important.					
18	I have got recognition for my good work					
19	There is a fair chance for promotion					
20	I have training that I need to do my job					
21	The hospital provides fair training opportunity					
22	There is high rate of turnover in the hospital					

23	High absenteeism is seen in some employee					
24	I feel stressed in my work					
25	I am satisfied with my Salary					
26	My salary is comparable to others who performing the same or similar jobs					
27	My benefits like transport, housing and duty allowance, etc., are fair compared to other staff at my level					

II. Questions related to knowledge of hypothermia prevention in perioperative patients.

Please select and Put (✓) in the box below for each question.

Item no.	Statements about perioperative hypothermia prevention	True	False	I Don't Know
Part 1	General knowledge			
1	The internal environment of humans can be maintained by thermoregulation.			
2	Perioperative hypothermia at any time during the perioperative cycle is characterized as a core body temperature < 36 ° C			
3	Anesthetic drugs increase heat loss in surgical patients.			
4	Cold IV fluids and blood products increase heat loss.			
5	Perioperative hypothermia is not associated with complications such as changes in drug metabolism, healing complications, shivering, clotting defects, cardiac morbidity, and prolonged post-anesthetic recovery.			
6	To minimize surgical complications post-operatively, nurses should advise patients to bring along additional clothing to help them stay warm prior to surgery			
7	The pulmonary artery catheter, distal esophagus, urinary bladder, rectum, zero heat-flux are some of the sites for temperature measurements.			
8	Nurses should be well trained and knowledgeable about the use of both temperature recording and warming devices			
9	Forced-air warming devices, warm water circulating devices and conductive devices are not some of the devices for warming surgical patients			

10	The method for temperature monitoring should not be chosen based on the criteria for a procedure			
11	To ensure accurate information, the perioperative team takes the patient's temperature at 15- minute intervals using different measuring devices at different sites.			
Part 2	Preoperative hypothermia prevention			
1	Patients with a temperature below 36.0°C undergoing anesthesia & those having a high risk of cardiovascular complications are at higher risk for inadvertent perioperative hypothermia			
2	It is not necessary to measure patients' temperature in the hour before departing the ward since it will be measured at the theatre.			
3	Except in urgent circumstances, preoperative patients with temperatures of less than 36.0°C should be warmed for 30 minutes using active warming methods.			
4	Special attention should be given to the comfort of surgical patients having difficulties expressing themselves			
5	The method for warming surgical patients should be chosen based on the planned surgical procedure, positioning of the patient, Intravenous access site, and warming equipment constraints.			
Part 3	Intraoperative hypothermia prevention			
1	Critical incidence reporting is not necessary for patients coming into the theatre with a temperature of less than 36.0°C.			
2	Induction of anesthesia should not begin unless the patient's temperature is 36.0°C or above (unless there is a need to expedite surgery because of clinical urgency).			
3	The theatre's room temperature should be at least 21°C which can be adjusted to allow better working once active warming is initiated.			
4	All irrigation fluids used intraoperative should be warmed in a thermostatically controlled cabinet to a temperature of 38°C to 40°C.			
5	Fluid warming devices should be used to warm Intravenous fluids (500mls or more) & blood products to 37°C			
6	Regardless of the temperatures of patients before leaving the ward or emergency department, they should be warmed using active warming method once in the theatre			

7	The surgical patient should be well covered throughout surgery to conserve heat and only be exposed during surgical preparation.			
Part 4	Post-operative hypothermia prevention			
1	During the postoperative period, hypothermic patients should be warmed using active warming method until they become warm before transferring them to the ward.			
2	Patients should be provided with at least 1 cotton sheet, 2 blankets, or a duvet during the postoperative phase			
3	Whiles in the theatre, the patients' temperature should be measured every 15 minutes and every 30 minutes while in the recovery room.			
4	The temperature of post-operative patients should be recorded on arrival to the ward and be taken and documented as part of a routine four hourly observations.			

III- Questions related to practice of hypothermia prevention in perioperative patients.

Please select and Put (✓) in the box below for each *question*.

Hypothermia prevention practices	Never/0	Sometimes/1	Always/2
1. Do you measure temperature as soon as patient arrival?			
2. Do you measure temperature regularly according to guidelines recommendation (for preoperative patient every 1hr, intraoperative every 30', recovery every 15' and post-operative every 4hrs)?			
3. Do you warm intravenous, blood products, and irrigation fluids using warming devices before administering to patients?			
4. Do you cover the mattress plastic sheet with dry linen before patient admission?			
5. Do you use forced-air warming devices, warm water circulating devices, and conductive devices for warming surgical patients?			
6. Do you communicate your assessment findings on factors that could lead to perioperative hypothermia to all members of the perioperative team?			

7. Do you advise patients to inform you when they feel cold during their hospitalization?			
8. Do you develop and implement the care plan for perioperative hypothermia prevention?			
9. Do you document the site for temperature measurement in the patients' file?			
10. Do you maintain ambient room temperature according to the guideline?			
11. Do you assess patients for their risk for perioperative hypothermia?			
12. Do you assess for signs and symptoms of hypothermia?			
13. Do you advise patients to stay warm prior to surgery?			
14. Do you include thermoregulation interventions and patient-related care to thermoregulation in your hand-over report			