

Continuous Professional Development Module for Nurses

PARTICIPANT HANDBOOK



**Government of Nepal
Ministry of Health and Population
Department of Health Services
Nursing and Social Security Division
Teku
2077 (2020)**

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Ministry of Health and Population

Department of Health Services

Nursing and Social Security Division

Tel : 01-4262063

Fax : 01-4252483

Email : nursing2075@gmail.com

Continuous Professional Development Module for Nurses

REFERENCE MANUAL



**Government of Nepal
Ministry of Health and Population
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Teku
2077 (2020)**



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Department of Health Services

4-261712
4-261436
Fax: 4-262268

..... Division



Pachali, Teku
Kathmandu, Nepal

Ref No.:



FOREWORD

National Health Policy, 2076 , strategy number 6.8.6 states that higher education, in-service training and continuous professional training will be encouraged and scaled up to capacitate the health workers. Similarly, as mentioned in Nepal Health Sector Strategy (2072-2077) outcome number two, standardizing pre and in-service for health workers will improve quality of care at point of point of delivery. Therefore, in line with national health policy and NHSS, Nursing and Social Security Division has prepared and implemented this CPD module to enhance the knowledge and skill of nurses throughout the country.

Health system demands evidence based health practices to ensure the client health and safety. Along with these initiations, every health workers including nurses needs to update their knowledge and skills. Globally, many countries have started CPD and has been linked to license re-registration of nurses and other health workers too. I believe that this CPD module is very relevant to the need of nurses and will be an impetus for the capacity building of nurses working throughout the country.

I would like to thank Director and all the dedicated team of Nursing and Social Security Division and all the members of technical working and task force group to bring this wonderful book.

.....
D.R. Singh

Dr. Dipendra Raman Singh
Director General
Department of Health Services



Government of Nepal
Ministry of Health and Population
Department of Health Services
Nursing and Social Security..... Division

4-261712
4-261436
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FOREWORD

Nursing and Social Security Division, Department of Health services, has concern on quality improvement in health care services. Being professionally competent and providing quality care has been important in this century. Nurses, who are the backbone of health system are always in the care of patient round the clock and are in the need of professional competency. The professional competency is achieved by updating the knowledge and skills and being relevant with the current situation.

The concept of Continuous Professional Development (CPD) Educational module has been developed for the nurses who have devoted their life for this profession. The objective of this module is to update the knowledge and skills of nurses working in hospitals, academia, community and other setting as well. The modules can be selected as per the need of the participants. I believe that this CPD module will update the knowledge and skills of academicians to provide quality pre-service education and for the clinical nurses to provide updated quality nursing services. I expect that the implementation of this module will assist the nurses achieving new position in their career from where they can lead, influence, coach and mentor others.

There are many heads and hands involved to prepare and deliver this CPD module. These includes the series of activities like forming task force, scheduling meetings, preparing a draft module and finalizing the draft from the workshop, implementing in hospital and sending it to provinces too. This CPD module has thirteen different modules which include the common and important nursing procedures performed in the hospitals. Every module is equally important in daily professional life. However it also include Basic Life support module which is a mandatory module for relicensing in many of the international councils as well. This module has been prepared in such a way that it can be implemented in modular basis or training basis according to the convenience and need of the participants.

I want to extend my sincere thanks to my dedicated, enthusiastic and smart team (Ms. Bala Rai and her team) of our division, all the members of task force team and technical working group, all participants of Bheri Hospital and National Trauma Center for their generous effort to bring up to this level. Last but not least thanks goes to Dr Dipendra Raman Singh, Director General, Department of Health Services for his continuous support and dedication to us. The success of CPD is evaluated by health consumer through acquisition of quality services and hopes to achieve this success.


.....
Roshani Laxmi Tuitui
Director
Nursing and Social Security Division



Government of Nepal
Ministry of Health and Population
Department of Health Services

4-261712
4-261436
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ACKNOWLEDGEMENT

This Continuous Professional Development (CPD) Educational Package has been developed for continuous update of knowledge and skills of nurses working at various settings. This CPD Educational Package consists of 13 modules consisting of most common procedures applicable in general hospitals. I must greatly extend my acknowledgement to all the helping hands who have provided their valuable time in bringing out this document.

First and foremost, my sincere thanks to the task force members for investing their time in series of meeting and discussions to prepare the foundation of Continuous Professional Development Module. My sincere gratitude to the technical working committee members for their continuous and untiring effort to finalize this module. Similarly, I am very much thankful to the members of steering committee for guiding us and providing a positive environment to finalize this module.

This module would not have been accomplished without the support of our team of Nursing and Social Security Division. All of the team members of nursing capacity building section have put an effort to materialize the concept of CPD module for strengthening and capacitating nurses working throughout the country.

Lastly, I would like to thank the consultant team for editing the modules and providing us the final copy of the CPD module.

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Bala Rai

Section Chief
Nursing Capacity Building Section

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Introduction

The concept of Continuous Professional Development (CPD) can broadly trace its roots to the decades following World War II, when institutional bodies identified a need for structured further learning post formal qualification. Up until this point it had largely been assumed that qualified professionals would identify and initiate their knowledge enhancement requirements on a casual or voluntary basis. However, in an increasingly controversial and technologically advancing business and professional environment, the need became apparent for a more disciplined and structured approach to further learning. Over the past two decades this commitment to CPD has spread beyond those affiliated to institutional bodies and is now embraced throughout all sectors.

Maintaining competence in the medical profession is not an easy matter. The knowledge and skills learned during basic training decline in each persistent year. This happens more rapidly for practitioners located away from cities and medical centers. Best practices in health care are always evolving. There is always more to learn. So, nurse needs to develop skill set to make sure they are delivering the best care possible. CPD helps nurses keep updated with their training so they can deliver the best care to the patients.

Continuous Professional Development (CPD) stands for a holistic approach taken by professionals to enhance their skills, knowledge and capabilities.

Key features of CPD

- Is a documented process
- Self-directed
- Focus on learning from experience
- Include both formal and informal learning

In UK (United Kingdom), nurses are required to demonstrate their CPD in order to renew their registration. They must undertake a minimum of 35 hours of CPD in a three-year period, and link this to the professional code for nurses and midwives .Delhi Nursing Council in India requires nurses to renew their registration once every five years with the achievement of 30 credit hours per year gained by means of attending continuing education programme and workshops (Delhi Nursing Council, 2016) . In Nepal, nurses can continue to practice without any post registration training or any CPD and there is no any requirement (CPD) to re-register. Recently the Nepal Nursing Council (NNC) called for the need for CPD in nursing to improve quality of care in Nepal.

Expected results

- Update knowledge and skills based on evidences
- Delivery of quality care
- Safeguard the public, employer, professionals and professional career
- Ensure the capabilities of nurses are kept in pace with the correct standards of others in the same field
- Ensures that the nurses maintain and enhance the knowledge and skills needed to deliver a professional service to the patients

Course Design

This module is designed to be highly interactive with the use of varieties of teaching learning methodologies. Brainstorming, illustrative lecture, discussion, demonstration, checklists are used to respond to different learning styles and facilitate maximum learning for the learners. The facilitator

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guideline includes session guide for the facilitator, power point for presentations and video clips are used for creative thinking, mannequin for simulation and detailed subject related resource for the facilitator. This CPD educational module is developed in modular format and has 13 different modules which can be used according to the need of the learner or as per the relevancy to the service provider. These modules are developed focusing on nurses working in general hospitals. So the module incorporated the common areas of general hospitals.

How to use

This CPD module can be used on the basis of institutional needs and can be planned by the nursing director/nursing chief according to the requirement mentioned in the guideline.

Parts of CPD educational module package

- **Reference Manual:** This manual is useful for participants, facilitator as well as others. Necessary elements and important fact based information needed for the participants during the course are included in this manual.
- **Facilitator's Guide:** The facilitator's guide consists of course syllabus, learning instructions for exercise, pre-test/post-test questionnaire with answer sheet, objective, guideline of CPD module package, methodology and time schedule to meet the defined learning objectives.
- **Participant Handbook:** This manual is useful for the participants. It has module objectives and checklists, role play scenario and instructions for the participants to perform the procedure.

Continuous Professional Development objectives

By the end of the course, participants will be able to perform the following activities:

1. Describe preoperative, intra-operative and postoperative nursing care and its essential elements.
2. Explain about pain management.
3. Perform suctioning of different sites (oral, endotracheal, etc.).
4. Describe care of unconscious patient and its nursing management.
5. Describe CVP monitoring and care.
6. Perform the basic life support.
7. Explain about Standard precautions and Isolation precautions.
8. Demonstrate hand hygiene and steps of donning and doffing personnel protective equipment.
9. Deliver oxygen therapy using proper technique.
10. Transfuse blood safely.
11. Provide nursing care to the patient's with chest tube drain in-situ.
12. Explain about prevention of problems caused by immobility.
13. Demonstrate different range of motion exercise.
14. Describe ethical and legal aspects of nursing.

Teaching/Learning Methodology

The following methods will be utilized and recommended to carry out the teaching and learning activities of this CPD educational module.

1. Illustrative Lecture: Facilitator delivers the content verbally among the participants using different audio visual aids.
2. Brain Storming: This can be done randomly among the participants or in divided groups. A question or a problem is given and then everyone is asked to share their knowledge and experience regarding the topic. At the end of the brain storm the list is reviewed and discussed.
3. Interactive Lecture: Facilitator use power point slides, white board for the lecture.

Introduction

4. Demonstration: Facilitator demonstrates any skills or procedure mentioned in the module in the skill lab using the procedure checklist. The group can be divided into few sub groups for demonstration led by a facilitator in each group.
5. Re demonstration: Among the total participant, according to the need of the content in the module all of them will re-demonstrate the procedure or few of the selected participants will re demonstrate the procedure.
6. Role Play: The participant group will be divided into sub groups or few of the participants will be selected by the facilitator or voluntary participation can also be encouraged. The sub groups or individual will be given a scenario (mentioned in the annex part) for the role play and time will be allocated for preparation. Perform the role play and allow time for discussion and provide feedback to the participants.

Training Materials

- Reference manual
- Mannequins
- Video clips
- Power Point slides,
- Projector
- Real articles
- Flip Charts

Participants Selection Criteria

The participants for this course are the nursing staffs working in general hospitals.

No. of participants – 20-25 participants

Facilitator Selection Criteria

Facilitator would be those persons who are the subject matter experts and have been involved in preparation of CPD educational module. Persons who have taken Training of Trainers (ToT) in relevant CPD module can also be the facilitator as per need.

No. of facilitators: 2-8 facilitators as per the need and content of the module.

CPD educational Module duration

This CPD educational module has 13 different modules. The duration of each module is different. The minimum duration of a module is 2 hours and maximum is 4 hours.

Module-1

Peri-operative Nursing Care

Duration: 4 hours

Module Objectives

Primary Objective: At the end of the module, participants will be able to describe preoperative, intra-operative and postoperative nursing care and its essential elements.

Enabling Objectives: At the end of the module, participants will be able to:

- Define peri-operative nursing
- List the purposes of preoperative nursing care.
- Explain about essential elements of preoperative nursing care in surgical patients.
- Describe the intra-operative care and its elements.
- Describe role and responsibilities of OT nurse, Scrub nurse and circulating nurse.
- Describe about care in the post-anesthesia care unit (PACU) or recovery room.
- Describe about care in the surgical unit.

Checklists used for peri-operative nursing care

Preoperative care checklist

Name of the patient:

Age/Sex:

Ward:

Diagnosis:

IP No:

Unit/ward:

Bed No:

Date:

Date and time of Operation:

Name of Surgeon/Unit:

Type of anesthesia:

Name of anaesthesiologist/Unit:

NPO Since:

Urine voided time:

Vital Signs:

Temperature:

Blood Pressure:

SpO₂:

Respiratory Rate:

Name of Operation:

Pulse:

Weight:

Peri-operative Nursing Care

S.N.	Criteria	Yes	No	N/A	Remarks	
1.	DOCUMENTATION	a. Written informed consent signed				
		b. OT Charge paid				
		c. History and physical examination documents				
		d. Medicine cardex				
		e. Pre-anesthetic checkup (PAC) form				
		f. History of allergies noted				
2.	PHYSICAL PREPARATION	a. Bath/Sponge done				
		b. OT gown worn				
		c. Removal of jewelry/artificial teeth/contact lens/hearing aids/prosthesis				
		d. Personal clothing and underwear removed				
		e. Polish/artificial nails removed				
		f. Operative site marked				
		g. Surgical part preparation done				
		h. Hair clipping done				
		i. Preoperative teaching done				
		j. Premedication done				
		k. Necessary drugs and articles arranged				
3.	INVESTIGATION	a. Lab test (Biochemistry, Hematology, BT CT, Blood grouping)				
		b. Serology (HIV, HBs Ag, HCV)				
		c. Radiology:				
		• X-ray				No.
		• CT scans				No.
		• MRI				No.
		d. Ultrasonography Reports (USG)				
		e. ECG/Echocardiography Reports				
f. Other Investigations						
	g. Blood products arranged					

Name and signature of ward nurse

Name and signature of OT nurse.....

Date/ Time

Peri-operative Nursing Care

Modified Alderte Score

Name of the patient: Age/Sex:..... Date:
 IP No: Ward: Unit:.....

VITAL SIGNS/SOURCE		SCORE	TIME	ADM.	15"	30"	45"	60"	DISCHARGE
	Systolic BP \pm 20% of pre-anesthetic level	2							
Circulation	BP \pm 20-49%	1							
	BP \pm 50%	0							
Consciousness	Fully awake	2							
	Arousable on calling	1							
	Not responding	0							
O2 saturation	Able to maintain O ₂ sat >92% on room air	2							
	Needs O ₂ inhalation to maintain O ₂ sat >90%	1							
	O ₂ sat <90% even with o ₂ supplement	0							
Respiration	Able to deep breathe & cough freely	2							
	Dyspnea or limited breathing apneic	1							
	No spontaneous effort	0							
Activity	Able to move 4 extremities	1							
	Able to move 2 extremities	2							
	No movement	0							
Total									

Diagnosis: Operation:.....

Time of discharge: Name and signature of duty nurse:

Note: Aldrete score should be more than 8 before discharge from Post Anesthesia Care Unit.

Surgical Safety Checklist

Hospital Name:

Date:

Before induction of Anaesthesia	Before skin incision	Before patient leaves operating room
SIGN IN	TIME OUT	SIGN OUT
Patient has confirmed <input type="checkbox"/> Identity <input type="checkbox"/> Site <input type="checkbox"/> Procedure <input type="checkbox"/> Consent	<input type="checkbox"/> Confirmed all team members have introduced themselves by name and role.	Nurse verbally confirms with the team <input type="checkbox"/> The name of the procedure recorded <input type="checkbox"/> Completion of instruments, sponges and needle counts are correct (or not applicable) <input type="checkbox"/> Specimen labelling (Including patient name)
Is the site marked? <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	<input type="checkbox"/> Confirmed the patient name, procedure and where the incision will be made?	<input type="checkbox"/> Whether there are any equipment problems to be addressed
Anaesthesia safety check completed <input type="checkbox"/> Yes	Anticipated critical events Surgeon reviews: <input type="checkbox"/> What are the critical or unexpected steps? <input type="checkbox"/> How long will be the case? <input type="checkbox"/> What is the anticipated blood loss? Anaesthesia team reviews: <input type="checkbox"/> Are there any patient specific concerns? Nursing team reviews: <input type="checkbox"/> Has sterility (including indicator results) been confirmed? <input type="checkbox"/> Are there equipment issues or any concerns?	<input type="checkbox"/> Surgeon, anaesthesia professional and nurse review the key concerns for recovery and management of this patient.
Is the Pulse oximeter on patient and functioning? <input type="checkbox"/> Yes		
Does patient have 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	Has antibiotic prophylaxis been given within the last 60 minutes? <input type="checkbox"/> Yes <input type="checkbox"/> Not available Is essential imaging displayed? <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	

Signature of anaesthesiologist
Date and Time

Signature of OT staff
Date and Time

Pre-test Questionnaire

1. What is Surgical Safety Checklist (SSC) ?

- a) A tool to reduce the risk of preventable complications during the perioperative period
- b) A list of equipment that will be required during the surgery
- c) A tool to ensure that all staff in the practice are prepared for an emergency situation
- d) A document listing all the roles of staff members in the operating theatre

2. Informed consent is a legal mandate but it also helps the patient to prepare:

- a) Physically
- b) Psychologically
- c) Culturally
- d) Spiritually

3. Usually “NPO after midnight” is followed because anaesthesia depress gastrointestinal functioning and there is a danger the patient would during the administration of a general anaesthesia.

- a) Arrive to the phase of excitement
- b) Arrive to medullary depression
- c) Increase gastric secretions
- d) Vomit and aspirate

4. Advocating for patient’s rights for privacy, for other team members, and for her/himself is an important quality of the OT nurse that falls under which quality ?

- a) Stamina
- b) Respect
- c) Emotional stability
- d) Team spirit

5. Which of the following should be given highest priority when receiving patient in the OT ?

- a) Assess level of consciousness
- b) Verify patient identification and informed consent
- c) Assess vital signs
- d) Check for jewelry, gown, manicure and dentures

6. The objectives for the care in recovery room is to provide care until the patient has recovered from the effect of anesthesia, is oriented, has stable vital signs and:

- a) Shows no signs of surgical site infection.
- b) Shows signs of pain level 8 out of 10
- c) Shows no evidence of mental confusion.
- d) Shows no evidence of haemorrhage.

7. Which maneuver is used for restoring airway patency:

- a) Head tilt, jaw lift, chin thrust
- b) Head tilt, chin lift, jaw thrust
- c) Jaw thrust, head lift, chin tilt
- d) Chin lift, jaw tilt, head thrust

8. Early ambulation has many following positive outcomes except:

- a) Reduces the respiratory complications, such as atelectasis, hypostatic pneumonia.
- b) Promotes venous return.
- c) Reduces postoperative abdominal distention by increasing abdominal wall tone.
- d) Reduces postoperative pain.

9. A postoperative client asks the nurse why it is so important to deep-breathe and cough after surgery. When formulating a response, the nurse incorporates the understanding that retained pulmonary secretions in a postoperative client can lead to which condition ?

- a) Pneumonia
- b) Hypoxemia
- c) Fluid imbalance
- d) Pulmonary embolism

10. The nurse assesses a client's surgical incision for signs of infection. Which finding by the nurse would be interpreted as a normal finding at the surgical site ?

- a) Red, hard skin
- b) Serous drainage
- c) Purulent drainage
- d) Warm, tender skin

Module-2 Pain Management

Module objective

Primary Objectives: At the end of the module, participants will be able to explain about pain management.

Enabling Objectives: At the end of the module, participants will be able to:

- Define Pain.
- Discuss about WHO (World Health Organisation) ladder of pain management.
- Explain about various non-pharmacological methods of pain management.

Pain Assessment Form

Patient's name..... Diagnosis:

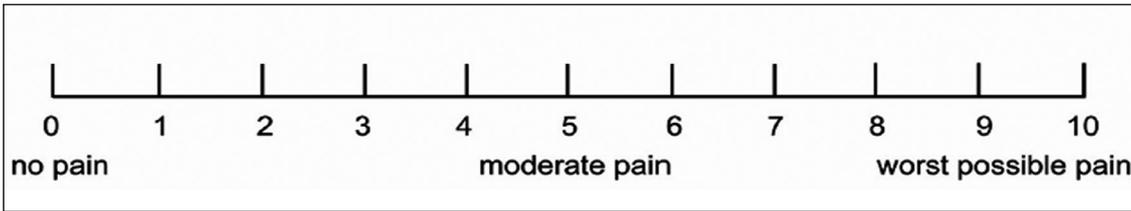
Date.....

Age/Sex..... IP number Bed no.....

1. Location: Mark drawing
2. Intensity: Rate the pain. Scale used: (1) Numerical (2) Facial and (3) FLACC scale
 - a. Mild pain
 - b. Moderate pain
 - c. Severe pain
3. In this pain constant ? Yes, No, If not, how often does it occur?
4. Quality: (for example: ache, deep, sharp, hot, cold, like sensitive skin, itchy).....
5. Onset, duration, variations.....
6. Manner of expressing pain (crying, biting, showing anger etc.).....
7. What relieves pain?
8. What causes or increases the pain?
9. Effects of pain:
 - a. Sleep disturbance
 - b. Emotions (anger, sadness, crying)
 - c. Physical activity
 - d. Concentration
 - e. Others.....
10. Plan of management

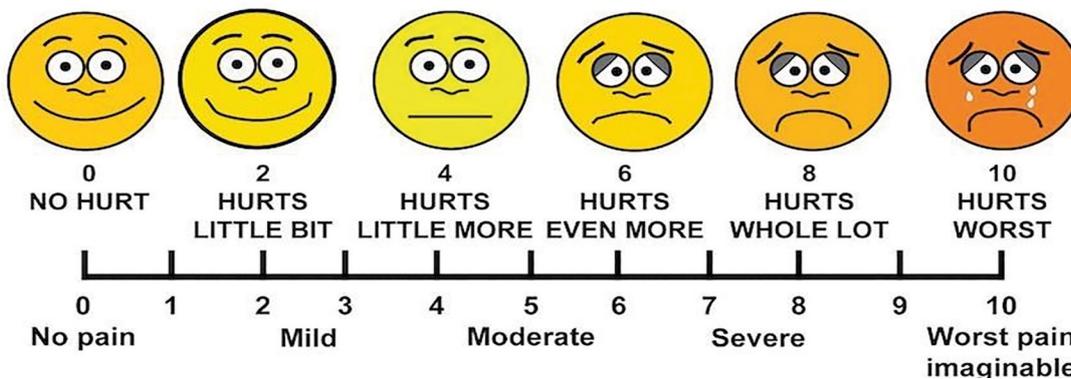
Tools of Pain Assessment

Verbal Rating (Numeric rating) Scale



Visual Analogue Scale (VAS)

PAIN MEASUREMENT SCALE



FLACC Scale: For children

Categories	Scoring		
	0	1	2
Face	No particular expression or smile; disinterested	Occasional grimace or frown, withdrawn	Frequent to constant frown, clenched jaw, quivering chin
Legs	No position or relaxed	Uneasy, restless, shifting back and forth, tense	Arched, rigid, or jerking
Activity	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid, or jerking
Cry	No crying (awake or asleep)	Moans or whimpers, occasional complaint	Crying steadily, screams or sobs, frequent complaints
Consolability	Content, relaxed	Reassured by occasional touching, hugging, or talking to distractible	Difficult to console or comfort

Pain Management

Behavioral pain Scale (BPS) for Unconscious patient

Categories	Scoring			
	1	2	3	4
Facial expression	Relaxed	Partially tightened (brow lowering)	Fully tightened(eyelid closing)	Grimacing
Upper limb movement	No movement	Partially bent	Fully bent with finger flexion	Permanently extracted
Compliance with mechanical ventilation	Tolerating movement	Coughing with tolerating ventilation for most of the time	Fighting ventilator	Unable to control ventilation

BPS score ranges from 3 (no pain) to 12 (maximum pain)

Pre-test Questionnaire

1. Pathological pain is also called

- a) Nociceptive pain
- b) Inflammatory pain
- c) Neuropathic pain
- d) Physiological pain

2. Place the examples of drugs in the order of usage according to the World Health Organization (WHO) analgesic ladder. a. Morphine, hydromorphone, acetaminophen and lorazepam b. NSAIDs and corticosteroids c. Codeine, oxycodone and diphenhydramine

- a) a, b,c
- b) c,a,b
- c) c,a,b
- d) b,c,a

3. Types of pain according to mechanism is

- a) Acute and chronic pain
- b) Nociceptive and neuropathic pain
- c) Cancer and non-cancer pain
- d) Visceral and superficial pain

4. Gold standard method for measuring pain is

- a) Self-report
- b) Behavioral assessment
- c) Physiological changes assessment
- d) Numeric assessment

5. The following drug would be preferred when treating acute mild pain in a 30 year old man with no significant medical history and no medications

- a) Tramadol.
- b) Acetaminophen
- c) Propoxyphene
- d) Morphine

6. In applying the principles of pain treatment, what is the first consideration?

- a) Treatment is based on client goals
- b) A multidisciplinary approach is needed
- c) The client must be believed about perceptions of own pain
- d) Drug side effects must be prevented and managed

7. Regarding pain all the following descriptors are applicable except

- a) Always subjective.
- b) Always associated with actual tissue damage
- c) A sensory and emotional experience
- d) A primary reason patients seek medical advice.

8. Which of the following client is most likely to receive opioids for extended periods of time ?

- a) A client with fibromyalgia
- b) A client with phantom limb pain
- c) A client with progressive pancreatic cancer
- d) A client with trigeminal neuralgia

9. In caring for a young child with pain, which assessment tool is the most useful?

- a) Simple description pain intensity scale
- b) 0-10 numeric pain scale
- c) Face pain-rating scale
- d) McGill-melzack pain questionnaire

10. Which route of administration is preferred if immediate analgesia and rapid titration are necessary ?

- a) Intraspinal
- b) Patient controlled analgesia
- c) Sublingual
- d) Intravenous

Module-3 Suctioning

Duration: 2 hours

Module objectives

Primary Objective: At the end of the module, participants will be able to performed suctioning of different sites.

Enabling Objectives: At the end of the module, participants will be able to

- Describe the suctioning
- List the indication and contraindication of suctioning
- Perform suctioning of oropharyngeal, nasopharyngeal, endotracheal and tracheostomy.

Checklist for oropharyngeal and nasopharyngeal suctioning

S.N.	Procedures /Interventions	Yes	No	Remarks
1	Assess patient for need to suctioning e.g. lung sound, secretions, RR.			
2	Explain to patient and family how the procedure and encourage patient to cough if appropriate.			
3	Position patient in semi-Fowler’s position with head turned to the side.			
4	Wash hand, gathers equipments/supplies, and applies gloves. Apply mask if a body fluid splash is likely to occur.			
5	Fill bowl with water to clear connection tubing in between suction.			
6	Attach one end of connection tubing to the suction machine and the other end to the suction tubing.			
7	Turn on suction to the required level. Follow agency policy for suction level.			
8	Test the function of suction apparatus by suctioning up a small amount of water.			
9	If oxygen mask is present, remove it but nasal cannula may be left.			
10	Place towel or water proof pad across the patient chest.			
11	Insert catheter to mouth or nasal cavity move catheter in cavity until suction are cleared, encourage patient to cough during procedure.			
12	Reassess and repeat oral suctioning if required.			
13	Reassess respiratory status and O2 saturation for improvements. Call for help if any abnormal signs and symptoms appear.			
14	Replace the mask or oxygen device.			
15	Rinse the catheter with water until the secretion is cleared from suction tubing.			
16	Remove towel, position the patient in comfortable position and provide oral hygiene if required.			
17	Clean up supplies, remove gloves, and wash hands.			
18	Document the procedure, finding and condition of patient according to agency/hospital policy.			

Suctioning

Check list for tracheostomy and endotracheal suctioning

S.N.	Procedures /Interventions	Yes	No	Remarks
1	Assess patient for need to suctioning e.g. lung sound, secretions, RR.			
2	Explain to patient and family how the procedure and encourage patient to cough if appropriate.			
3	Position patient in semi-Fowler's position with head turned to the side if not contraindicated.			
4	Wash hand, and observe other appropriate infection control procedure.			
5	Flush the suction catheter with normal saline and lubricate with water soluble gel.			
6	Attach the resuscitation apparatus to the oxygen source and adjust the oxygen flow to 100% flush.			
7	Turn on the suction and set the pressure in accordance.			
8	Put sterile gloves, mask and gown as necessary.			
9	Hyperoxygenate the patient.			
10	Remove the resuscitation device and put it on proper place.			
11	Quickly but gently insert the catheter without applying suction.			
12	Apply intermittent suction for 5 to 10 seconds by placing the non dominant thumb over the thumb port.			
13	Rotate the catheter by rolling it between your thumb and forefinger while slowly withdrawing it.			
14	Withdraw the catheter completely and release the suction.			
15	Reassess the client's oxygenation status and repeat suctioning.			
16	Dispose of equipment and ensure availability for the next suction.			
17	Assist the client to a comfortable safe position that aids breathing.			
18	Document the procedure, finding and condition of patient according to agency/hospital policy.			

Suctioning

Checklist for closed suctioning

S.N.	Procedures /Interventions	Yes	No	Remarks
1	Assess patient for need to suctioning e.g. lung sound, secretions, RR.			
2	Explain to patient and family how the procedure and encourage patient to cough if appropriate.			
3	Position patient in semi-Fowler's position with head turned to the side.			
4	Wash hand, gathers equipments/supplies, and applies gloves. Apply mask if a body fluid splash is likely to occur.			
5	Fill bowl with water to clear connection tubing in between suction.			
6	Attach one end of connection tubing to the suction machine and the other end to the suction tubing.			
7	Turn on suction to the required level. Follow agency policy for suction level.			
8	Test the function of suction apparatus by suctioning up a small amount of water.			
9	If oxygen mask is present, remove it but nasal cannula may be left.			
10	Place towel or water proof pad across the patient chest.			
11	Insert catheter to mouth or nasal cavity move catheter in cavity until suction are cleared, encourage patient to cough during procedure.			
12	Reassess and repeat oral suctioning if required.			
13	Reassess respiratory status and O2 saturation for improvements. Call for help if any abnormal signs and symptoms appear.			
14	Replace the mask or oxygen device.			
15	Rinse the catheter with water until the secretion is cleared from suction tubing.			
16	Remove towel, position the patient in comfortable position and provide oral hygiene if required.			
17	Clean up supplies, remove gloves, and wash hands.			
18	Document the procedure, finding and condition of patient according to agency/hospital policy.			

Pretest Questionnaire

- 1. Maximum duration of endotracheal and tracheostomy suction is approximately**
 - a) 40 seconds
 - b) 30 seconds
 - c) 10 seconds
 - d) 5 seconds

- 2. During suction procedure the suction should be applied**
 - a) When withdrawing the suction catheter
 - b) When inserting the suction catheter
 - c) Either during insertion or withdrawal, depending on when the patient coughs
 - d) Only if the patient coughs

- 3. The recommended pressure setting of suction unit for adult patient is**
 - a) 130 mmHg
 - b) 140 mmHg
 - c) 120 mmHg
 - d) 150 mmHg

- 4. Which of the following is a contraindication for inserting a nasopharyngeal airway ?**
 - a) The patient is able to tolerate an oropharyngeal airway.
 - b) The patient has a fractured base of skull.
 - c) The patient has hypoxaemia.
 - d) The patient has a chest infection.

- 5. Which of the following are possible indications for performing suction?**
 - a) Normal air entry on auscultation.
 - b) The patient has an effective cough.
 - c) Reduced oxygen saturation levels.
 - d) Normal respiratory rate.

- 6. A patient with a tracheostomy needs to be suctioned. What would you do first before suctioning the patient?**
 - a) Hyperoxygenate the patient before suctioning
 - b) Disconnect pulse oximetry
 - c) Have the patient bear down
 - d) Assist the patient into Sim's position

- 7. Possible hazards of suctioning are all, except**
 - a) Aspiration
 - b) Bronchospasm
 - c) Cardiac arrest
 - d) Respiratory arrest

8. Deep suctioning of the trachea may cause which of the following complications ?

- a) Bradycardia
- b) Tachycardia
- c) Subcutaneous emphysema
- d) Hypotension

9. How frequently should the ET suction catheter be changed ?

- a) After each suctioning
- b) After 12 hrs
- c) After 24 hrs
- d) After 48 hrs

10. During suctioning the suction catheter has to be rotated at ?

- a) 90
- b) 120
- c) 180
- d) 360

Module-4

Care of Unconscious Patient

Duration: 2 hours

Module Objectives

Primary Objective: At the end of the module, participants will be able to describe nursing care of unconscious patient

Enabling Objectives: At the end of the module, participants will be able to:

- Define unconsciousness.
- Explain about the assessment tool used in care of the unconscious patient.
- Describe about nursing management of care of the unconscious patient.
- Develop competency regarding the use of checklist in care of the unconscious patient.

Checklist for Care of Unconscious patient:

Name of patient:

Age/Sex:

IP No.:

Ward:

Unit:

Bed No:

Diagnosis:

S.N.	Task	Yes	No	NA
1.	Assessment <ul style="list-style-type: none"> • Vital Signs Every Three hourly • Cardio vascular Assessment • Intake • Output(Urine, Drain, Stool) • ABG • ICP Monitor • Record Glasgow coma scale every 3 hourly • Braden Scale • Gastro-intestinal /Genitourinary assessment • Pain 			
2.	Care <ul style="list-style-type: none"> • Maintain clear airway and assess breath sound • Precaution for injury • Hygiene care • Preserve corneal integrity • Maintains Body temperature • Fluid Balance • Feeding • Appropriate sensory stimulation • Early detection and prevention of complication (bedsore, contracture, • Maintain documentations any findings in nursing record • Family counseling • Chest physiotherapy • Documents all medical and nursing procedure accurately 			

Name and signature of ward nurse

Date/ Time

Care of Unconscious Patient

GCS of adult

Feature	Response	Score
Best eye response	Open spontaneously	4
	Open to verbal command	3
	Open to pain	2
	No eye opening	1
Best verbal response	Oriented	5
	Confused	4
	Inappropriate words	3
	Incomprehensible sounds	2
	No verbal response	1
Best motor response	Obeys commands	6
	Localizing pain	5
	Withdrawal from pain	4
	Flexion to pain	3
	Extension to pain	2
	No motor response	1

Interpretation

Severe : GCS 3-8

Moderate : GCS 9-12

Mild : GCS 13-15

Pediatric Glasgow coma scale

Pupil	Right Left	size		
		reaction		
		size		
		reaction		
			Score	
Eyes opens	Spontaneous		4	
	to speech		3	
	to pain		2	
	no response		1	
Best motor response	Obeys commands		6	
	Localizes		5	
	Withdraws		4	
	Flexes		3	
	Extends		2	
	No response		1	
Best response to auditory and visual stimulus	≤ 2years	Score	< 2years	Score
	Orientation	5	Smiles, Listens, Follows	5
	Confused	4	Cries, consolable	4
	Inappropriate words	3	Inappropriate persistent cry	3
	Incomprehensible words	2	Agitated, restless	2
	None	1	No response	1
	Endotracheal tube	T		

Pre-test Questionnaire

1. Lack of awareness of one's environment and the inability to respond to external stimuli is

- a) Consciousness
- b) Unconsciousness
- c) Alert state
- d) A wakeful state

2. Which is the main assessment tool used in unconscious patient ?

- a) Glasgow Coma Scale
- b) Braden risk Assessment Tool
- c) Motor assessment scale
- d) Rating scale

3. Barden risk assessment scale is used for

- a) Cognitive function
- b) Oral mucosa
- c) Skin integrity
- d) Motor response

4. What is the minimum score of Glasgow Coma Scale ?

- a) 3
- b) 7
- c) 10
- d) 15

5. Glasgow coma scale is classified as severe if the score is

- a) ≤ 8
- b) ≤ 10
- c) ≤ 12
- d) ≤ 14

6. What is first most important assessment for the nurse to assess the unconscious patient ?

- a) Health history
- b) Airway patency
- c) Neurologic status
- d) Status of bodily functions

7. Maintaining Fluid Balance and Managing Nutritional Needs in unconscious patients, liquid diet can start

- a) Within 72 hours
- b) Within 48 hours
- c) Within 24 hours
- d) Within 12 hours

8. To maintain patent airway in unconscious patient, the degree of head elevation is

- a) 30 to 45 degree
- b) 15 to 30 degree
- c) 45 to 90 degree
- d) More than 90 degree

9. Which one is correct step protecting the client/ patient from injury ?

- a) Do not keep the Padded side rails on bed sides.
- b) Unrestraint the patient.
- c) Avoid talking with the client in-between the procedures.
- d) Speak positively to enhance the self esteem and confidence of the patient.

10. Why is CT scanning the crucial early investigation for stroke ?

- a) It is quicker than a full neurological examination
- b) It indicates what kind of disability a patient might have
- c) It distinguishes ischaemic stroke from haemorrhage or other intracranial pathologies
- d) It is easier and cheaper than MRI

Module-5

Central Venous Pressure (CVP) Monitoring and Care of Central Lines

Duration: 2 hours

Module Objective

Primary Objective: At the end of the module, participants will be able to explain about Central Venous Pressure (CVP) monitoring and care of central lines.

Enabling Objectives: At the end of the module, participants will be able to:

- Explain about different site of central line insertion.
- List different types of CVP catheter.
- State the indication and purposes of CVP insertion, monitoring and care.
- Describe the CVP Insertion Technique.
- Enumerate the complications of Central lines.
- Demonstrate the monitoring of Central Venous Pressure.
- Explain the role of nurses in Central Line Bundle maintenance.

Checklist for Central Venous Pressure Monitoring and Care

Central Venous Pressure (CVP) Line Insertion Check List

Name of patient:

Age/Sex:

Ward:

I.P. No.:

Diagnosis:

CVP site:

Date and time of insertion:

Before the Procedure

S.N.	Procedures	Yes	No	Remarks
1	Obtain informed consent			
2	Patient's infection risk assessed.			
3	Perform Hand hygiene			

Central Venous Pressure (CVP) Monitoring and Care of Central Lines

3	<p>Articles required</p> <ul style="list-style-type: none"> • CVP catheter of appropriate size • PM Kit • Pressure bag • Normal saline • Mersilk2-0 • Three way connectors • Sterile gloves 6.5,7.0 • Surgical blade • Chlorhexidine (Savlon) • Syringe 10cc,5cc • 2% Lignocaine • Pressure bag • 0.9% Normal Saline 500 ml • Adhesive tape • Scissors • Set the monitor for CVP monitoring. <p>ICU PACK(includes)</p> <ul style="list-style-type: none"> • Sterile gown • Eye towel • Whole body drape • Sterile Mackintosh • Hand towel <p>ICU SET(includes)</p> <ul style="list-style-type: none"> • Tray containing • Bowl • Kidney tray • Scissor • Sponge holder • Artery forcep • Thumb forcep • Scalpel handle • Needle holder • Gauze 			
4	Site assessed and marked			
5	Properly position to prevent air embolism			
6	Skin prep performed with alcohol based Chlorhexidine solution			
7	Skin prepared is allowed to dry prior to puncture			
8	Use sterile technique to drape from head to toe			
9	Use local anesthetic and/or sedation			
10	Catheter pre-flushed and all lumens clamped			

Name and signature of ward nurse

Date/ Time

Central Venous Pressure (CVP) Monitoring and Care of Central Lines

During the Procedure

S.N.	Procedures	Yes	No	Remarks
1	Proper Scrubbing (Hand hygiene)			
2	Operator and Assistant wore PPE			
3	Place full body drape over patient			
4	Proper arrangement of articles in sequential order			
5	Prime the CVP ports with Normal Saline.			
6	Use of Chlorhexidine for skin preparation			
7	Sterile field maintained throughout Procedure			
8	Clamp any ports not used during insertion			
9	Aspirate blood from each lumen (to avoid air embolism and ensure intravascular placement)			
10	Secure catheter with suture			
11	Apply bio-occlusive dressing.			
12	Monitor and reassure the patient			

Post Procedure

S.N	Procedures	Yes	No	Remarks
1	Proper discard of used articles			
2	Keep patient in comfortable position, Zeroing at appropriate level done			
3	Confirmation of CVP Placement(x-ray ,backflow)			
4	Blood cleaned from site Sterile dressing applied (gauze, transparent dressing)			
5	Recording and Reporting			

Central Venous Pressure (CVP) Monitoring and Care of Central Lines

Checklist for Central Line Bundle Maintenance

S.N.	Procedures	Yes	No	Remarks
1	Explain procedure to patient			
2	Check <ul style="list-style-type: none"> • Pressure in bag (250-300) • Proper assessment of waveform in monitor • Keep transducer in phlebostatic area (4th intercostal space at mid axillary line) 			
3	Evaluate insertion site for <ul style="list-style-type: none"> • Infection • Swelling • Drainage • Kinking • Leakage • Missing sutures • Displacement 			
4	Assess condition of bio-occlusive dressing if required change <ul style="list-style-type: none"> • Ensure catheter cap placed in all the lumen • Check function of all the lumen(backflow) • Flush tubing after any use(medication,blood draw) • Use of alcohol swab before use of CVP lumen for any intervention • Use of sterile technique while dressing 			
5	Documentation <ul style="list-style-type: none"> • Date of tubing changes. • Date of dressing. • Saline change. • Date of insertion and removal 			

Central Venous Pressure (CVP) Monitoring and Care of Central Lines

S.N.	Procedures	Yes	No	Remarks
1	Equipment needed <ul style="list-style-type: none"> • Sterile gloves • Dressing set • Suture removal kit (scissor, blade, forceps) • Chlorhexidine skin prep applicator • Sterile container if sending tip for C&S • Adhesive tapes • Waste container 			
2	Verify order to remove central line.			
3	Gather all necessary equipments.			
4	Open sterile towel and dressing set.			
5	Explain procedure to patient.			
6	Position the patient in supine position without pillow (to prevent air embolism).			
7	Wash hands			
8	Don sterile gloves using aseptic technique.			
9	Cleanse dressing with alcohol pad to release transparent dressing			
10	Carefully remove the old dressing (Moisten securing device with alcohol if needed to release (do not force removal).			
11	Dispose off old dressings.			
12	Remove gloves and wash hands			
13	Don sterile gloves - aseptic technique			
13	Assess insertion site for signs of infection.			
14	Clean around the insertion site with swab to remove blood or residue			
15	Cut and remove the sutures			
16	Ask patient to do valsalva maneuver i.e hold breathe. If patient is on mechanical ventilator, remove catheter during expiration.			
17	Remove catheter with steady and gentle motion. If resistance is met, hold the removal process and notify the physician.			
18	Hold pressure on site a for 5-15 minutes to promote hemostasis			
19	Inspect the catheter and confirm that it is intact.			
20	Once hemostasis is confirmed apply sterile dressing.			
21	Study suggest no any added benefit of routinely sending catheter tip for culture. So no need to send the catheter tip for culture as routine procedure.			
22	Documentation: Date and time of removal; Description of the procedure			
23	Change dressing and assess site for signs of infections every 24 hours until it is healed			
24	Continue assessment of patients for complications			

Name and signature of ward nurse

Date/ Time

Pretest-Questionnaire

1. Which of the following measures preload?

- a. Central Venous Pressure (CVP)
- b. Systemic Vascular Resistance (SVR)
- c. Right Atrial Pressure (RAP)
- d. Pulmonary Artery Wedge Pressure (PAWP)

2. The bedside nurse reports that the patient's CVP is currently 2 cm H₂O and SBP is 70's. These readings suggest

- a. Hypervolemic state
- b. Hypovolemic state
- c. Hypertension
- d. Hypotension

3. The normal CVP measurement range is

- a. 4 to 8 cm H₂O
- b. 6-10 cm H₂O
- c. 8-12 cm H₂O
- d. 2-10 cm H₂O

4. The tip of CVP catheter is usually placed at

- a. Right Atrium and Superior Vena Cava Junction
- b. Right Atrium and Inferior Vena Cava junction
- c. Right ventricle apex
- d. Between the Right Atrium and Right Ventricle

5. The CVP is typically elevated in

- a. Hypovolaemia
- b. Congestive cardiac failure
- c. Cardiac tamponade
- d. Raised ICP

6. When reviewing the results on bloods drawn from a CVC with a Heparinized flush line, which sample may be inaccurate ?

- a) Full blood count.
- b) Urea and electrolytes
- c) Glucose.
- d) Coagulation studies.

7. The subclavian vein lies under the _____ close to the _____ artery.

- a) Under the clavicle close to the subclavian artery.
- b) Under the clavicle close to the axillary artery.
- c) Under the common iliac vein close to the axillary artery.
- d) Under the clavicle close to the popliteal artery

8. What type of dressing should be applied and how long should it remain in place after the removal of a central venous catheter ?

- a) Apply an occlusive dressing, which should be removed after 24 hours.
- b) Apply a gauze dressing, which should be left in place for 72 hours.
- c) Apply an occlusive dressing, which should be left in place for 72 hours.
- d) Leave open to air once the bleeding has stopped

9. Invasive monitoring consists of:

- a) Blood pressure cuff
- b) Arterial and/or pulmonary artery catheter
- c) EKG leads
- d) Mechanical ventilation

10. Examination of a patient in a supine position reveals distended jugular veins from the base of the neck to the angle of the jaw. This finding indicates:

- a) Decreased venous return.
- b) Increased central venous pressure.
- c) Increased pulmonary artery capillary pressure.
- d) Left-sided heart failure.

Module-6

Basic Life Support

Duration: 4 hours

Module Objectives

Primary Objectives: At the end of the module, the participants will be able to perform the basic life support.

Enabling Objectives: At the end of the module, participants will be able to:

- Explain about Basic life support.
- Discuss about the chain of survival.
- Explain sequence of Cardio-Pulmonary Resuscitation (CPR).
- Demonstrate step by step procedure of Basic Life Support in: adult, child & infant.

Checke list fof Adult Basic Life Support

Date:

Direction to use: (✓) all that apply

S.N.	Steps	Yes	No	Remarks
1	Verify scene safety			
2	Check for responsiveness, Shout for help if not responsive			
3	Activate emergency response system (102)via mobile / Code no.			
4	Get defibrillator/emergency equipment if alone.(If someone else directs someone to get them)			
5	Assess for breathing and pulse (carotid) simultaneously within 10 sec			
6	If normal breathing with pulse: Monitor until EMS arrives			
7	If no normal breathing but has pulse <ul style="list-style-type: none"> • Provide rescue breathing :1breath every 5-6 sec • Assess for pulse and breathing after 2 min • If no pulse begin CPR 30:2 (100-120 /min) 			
8	If no breathing/ only gasping and no pulse : <ul style="list-style-type: none"> • Begin CPR • Use AED/Defibrillator immediately if arrives • Check rhythm • If shockable rhythm ,give one shock and resume CPR for 2min • If non-shockable , continue CPR and watch for rhythm in every 2 min 			
9	Continue CPR until EMS arrives or patients starts to move (Switch the role in every 2 min)			
10	Documentation of all events.			

Name and signature of ward nurse

Date/ Time

Basic Life Support

Check List of Pediatric Basic Life Support

Date:

Direction to use: (✓) all that apply

S.N.	Steps to be followed	Yes	No	Remarks
1	Verify scene safety			
2	Check for responsiveness: If not responsive, shout for help			
4	Activate ERS (Emergency Response System -102)			
5	Assess for breathing and pulse within 10 second			
6	If normal breathing with pulse: <ul style="list-style-type: none"> • Monitor until ERS arrives • Activate ERS if not activated yet 			
7	If no normal breathing but has pulse : <ul style="list-style-type: none"> • Provide rescue breathing: 1 breathe every 3-5 sec. • Assess pulse and breathing after 2 min • If no pulse, begin CPR 			
8	If no breathing/ gasping and no pulse : <i>Witnessed collapse:</i> <ul style="list-style-type: none"> • Activate ERS and get AED/defibrillator • Then begin CPR , 30:2 if single rescuer, 15:2 if two rescuer <i>Un-witnessed collapse:</i> <ul style="list-style-type: none"> • Begin CPR for 2 min (100-120 /min) • Then Activate ERS. 			
9	Analyze rhythm as AED/ defibrillator arrives			
10	Shockable rhythm <ul style="list-style-type: none"> • Give 1 shock & resume CPR immediately for 2 minutes • Continue until ALS providers arrives or patients starts to move 			
11	Non-shockable rhythm <ul style="list-style-type: none"> • Resume CPR immediately for 2 minutes • Re- assess every 2 minutes Continue until ALS providers arrives or patients starts to move (Switch the role in every 2 min)			
12	Documentation of all events			

Name and signature of ward nurse

Date/ Time

Pre-test Questionnaire

- 1. A 53 years male suddenly collapses and becomes unresponsive in front of you, What would be the first step to begin ?**
 - a) Open the airway and give 2 breaths
 - b) Check for responsiveness
 - c) Ensure scene safety
 - d) Begin Chest Compressions

- 2. What is the ratio of chest compression to breaths when providing CPR to adults ?**
 - a) 10 compression to 2 breaths
 - b) 15 compression to 2 breaths
 - c) 30 compression to 2 breaths
 - d) 100 compression to 2 breaths

- 3. How deep should chest compressions be for an adult victim ?**
 - a) At least 1 inch (2.5 cm) deep.
 - b) At least 2 inches (5 cm) deep.
 - c) At least 5 inches (7.5 cm) deep.
 - d) At least 7 inches (10 cm) deep.

- 4. What are the rate and depth for chest compression on an adult ?**
 - a) 60-80 compression per minute and depth of about 2.5 cm
 - b) 80-100 compression per minute and depth of about 4 cm
 - c) 120-140 compression per minute and depth of about 6.4 cm
 - d) 100-120 compression per minute and depth of at least 5 cm

- 5. If you suspect that an unresponsive victim has head or neck trauma, what is the preferred method for opening the airway ?**
 - a) Head tilt – chin lift
 - b) Jaw thrust
 - c) Head tilt – neck lift
 - d) Avoid opening the airway

- 6. What is the correct compression to ventilation ratio for a single rescuer of a 3 year old child?**
 - a) 15 compression to 1 breathe
 - b) 15 compression to 2 breathe
 - c) 20 compression to 1 breathe
 - d) 30 compression to 2 breathe

- 7. What is the correct chest compression depth for a child ?**
- a) At least one fourth the depth of chest or about 2.5 cm
 - b) At least one third the depth of chest or about 4 cm
 - c) At least one third the depth of chest or about 5 cm
 - d) At least one half the depth of chest or about 7.6 cm
- 8. Which victim would need only rescue breathing?**
- a) Agonal gasping with no pulse
 - b) Breathing with a weak pulse
 - c) No breathing and a pulse
 - d) No breathing and no pulse
- 9. Which action can rescuers perform to potentially reduce the risk of gastric inflation ?**
- a) Delivering each breath over 1 second
 - b) Giving rapid, shallow breaths
 - c) Using a bag-mask device for delivering ventilation
 - d) Using the mouth-to-mouth breathing technique
- 10. How often should rescue breaths be given to adults when a pulse is present?**
- a) 1 breath every 2 to 3 seconds
 - b) 1 breath every 3 to 5 seconds
 - c) 1 breath every 5 to 6 seconds
 - d) 1 breath every 8 to 10 seconds

Module-7 Infection Prevention and Control

Duration: 4 hours

Module Objectives

Primary Objective: At the end of the module, participants will be able to describe Standard precautions and Isolation precautions.

Enabling Objectives: At the end of the module, participants will be able to:

- Introduce standard precaution.
- Explain the components of Standard precautions.
- Demonstrate the steps of hand hygiene.
- Demonstrate the steps of donning and doffing of Personal Protective Equipment (PPE).
- Explain about different types of Isolation Precautions.

Checklists for Infection Prevention

Checklist for Hand Hygiene

Hospital Name:

Date:

Ward:

S.N.	Steps	Yes	No
1.	Remove jewellery (rings, bracelets) and watch before washing hand and ensure that the nails are clipped short		
2.	Roll the sleeves up to the elbow		
3.	Wet the hands and wrists, keeping hands and wrists lower than the elbows (permit the water to flow to the fingertips, avoiding arm contamination)		
4.	Apply enough soap to cover all hand surfaces		
5.	Follow six steps of hand washing		
	<ul style="list-style-type: none"> • Rub hands palm to palm 		
	<ul style="list-style-type: none"> • Right palm over left dorsum with interlaced fingers and vice versa 		
	<ul style="list-style-type: none"> • Palm to palm with fingers interlaced 		
	<ul style="list-style-type: none"> • Backs of fingers to opposing palms with fingers interlocked 		
	<ul style="list-style-type: none"> • Rotational rubbing of left thumb clasped in right palm and vice versa 		
	<ul style="list-style-type: none"> • Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa 		
6.	Rinse hands with water		
7.	Dry hands thoroughly		

Name and signature of ward nurse

Date/ Time

Moments of Hand Hygiene

S.N.	Steps	Before		After	
		Yes	No	Yes	No
1.	On arrival for duty, Leaving ward, Going for meal Performing procedure				
2.	Cleaning equipments				
3.	Completing patient assessment and bed making				
4.	Using toilet				
5.	Contact with blood and body fluid				
6.	Contact with every infectious patient				

Checklist for Wearing Sterile Gloves

Hospital Name:

Date:

Ward:

S.N.	Steps	Rating		
		Y	N	NA
1	Scrub hands thoroughly with soap and water. Dry them completely			
2	Open the glove packet carefully without touching the gloves or the inside surface of the packaging material (The cuffed gloves should be with the palms up)			
3	Pick up the first glove by the cuff, touching only the inside portion of the cuff (the inside is the side that will be touching your skin when the glove is on).			
4	While holding the cuff, slip your other hand into the glove (Pointing the fingers of the glove toward the floor will keep the fingers open). Be careful not to touch anything, and hold the gloves above your waist level.			
5	Pick up second glove by sliding fingers of the gloved hand under the cuff of the second glove. Be careful not to contaminate gloved hand with ungloved hand as the second glove is being put on			
6	Put second glove on ungloved hand by maintaining a steady pull through the cuff. Roll back cuffs (unfold them). Adjust the glove fingers until the gloves fit comfortably			
7	Once sterile gloves are on, hold your hands up and away from your body and always above your waist.			

Infection Prevention and Control

8	After a procedure, rinse gloves in chlorine solution while still on hands, including disposables			
9	After the procedure, always wash gloved hands to remove the blood stains and secretions and rinse gloves in chlorine solution while still on hands, including disposables			
10	Turn gloves inside out as you take them off and put into 0.5% chlorine solution. Wash your hands again with soap and water			

Name and signature of ward nurse

Date/ Time

Checklist for Donning PPE

Hospital Name:

Date:

Ward:

S.N	Steps	Yes	No	NA
1	Preparation <ul style="list-style-type: none"> • Remove extra items • Secure long hair off of face and neck 			
2	Hand hygiene <ul style="list-style-type: none"> • Perform hand hygiene using alcohol based hand rub. If hand looks or feel dirty, use soap and water 			
3	Gown <ul style="list-style-type: none"> • Insert arms through sleeves • Ensure gown covers from neck to knees to wrist • Tie at the back of neck • Tie at the back of waist 			
4	Procedure/Surgical mask <ul style="list-style-type: none"> • Secure ties or elastic bands around head or ears so that the mask stays in place • Mold the nose bridge band to your nose. Fit should be snug to face and continue to wrap under the chin 			
5	Eye protection or face shield <ul style="list-style-type: none"> • Place eye protection over the eyes. If using a face shield, place band around the head with foam perpendicular to the forehead • Adjust to fit 			
6	Gloves <ul style="list-style-type: none"> • Pull cuffs of gloves over the cuffs to the gown 			

Name and signature of ward nurse

Date/ Time

Infection Prevention and Control

Checklist for doffing PPE

Hospital Name: _____

Date: _____

Ward: _____

S.N	Steps	Yes	No	NA
Inside room				
1.	Gloves <ul style="list-style-type: none"> • Grasp outside edge of glove near the wrist and peel away from the hand, turning the glove inside out. Hold removed glove in opposite hand • Slide an ungloved finger or thumb under the wrist of the remaining glove. • Peel the glove off and over the first (removed) glove making a bag for both gloves • Put gloves in the garbage 			
2.	Hand hygiene <ul style="list-style-type: none"> • Perform hand hygiene using alcohol based hand rub. If hands look or feel dirty, use soap and water • Exit room (If door is closed when leaving patient room, ensure to perform hand hygiene again prior to removal of eye protection) 			
3.	Gown <ul style="list-style-type: none"> • Carefully unfasten ties(neck tie first) • Grasp the outside of the gown at the back of the shoulders and pull the gown down over the arms • Gently turn the gown inside out during removal • Place in the hamper in the patient room or if disposable, put in the garbage 			
4.	Hand hygiene <ul style="list-style-type: none"> • Perform hand hygiene using alcohol based hand rub. If hands look or feel dirty, use soap and water. • Exit room (If door is closed when leaving patient room, ensure to perform hand hygiene again prior to removal of eye protection) 			
Outside room				
5.	Eye protection or face shield <ul style="list-style-type: none"> • Handle only by headband or ear pieces • Carefully pull away from face • Place reusable items in appropriate area for cleaning. Put disposable items into the garbage 			
6.	Surgical mask <ul style="list-style-type: none"> • Bend forward slightly and carefully remove the mask from your face by touching only the ties or elastic bands (start with bottom tie and then remove the top tie) 			
7.	Hand hygiene <ul style="list-style-type: none"> • Perform hand hygiene using alcohol based hand rub. If hand look or feel dirty, use soap and water 			

Name and signature of ward nurse

Date/ Time _____

Pre-test Questionnaire

1. What are standard precautions ?

- a) Precautions that is used for infectious patients
- b) Precautions that is used for the care of all patients
- c) Precautions that is used for the flu patients
- d) Precautions that is used only in the tertiary hospital setting.

2. The most important practice in reducing the transmission of infectious agents which cause Hospital acquired infection (HAI) is

- a) Carrying out hand hygiene only before performing aseptic technique
- b) Performing hand hygiene when they are visibly soiled
- c) Carrying out hand hygiene frequently using the correct technique
- d) Wearing surgical gloves while providing nursing care

3. When using alcohol-based hand rub, you should:

- Apply the hand rub and wave hands until dry
- Apply a sufficient quantity of hand rub and rub hands for at least 20 seconds
- Apply the hand rub and rub palms together for 10 seconds
- Apply hand rub when you see infection control staff on the unit

4. The correct order to remove PPE is

- a) Apron first, gloves second, mask and finally eye protection if worn
- b) Eye protection, then mask if worn, then apron and finally gloves
- c) Gloves first, apron second, mask and finally eye protection if worn
- d) It doesn't matter in what order they are removed

5. Complete killing or removal of all types of micro-organisms, i.e. bacteria, viruses, fungi and mycobacteria is called;

- a) Disinfection
- b) Sterilization
- c) Cleaning
- d) Antisepsis

6. Touching infectious lesion or sexual intercourse is an example of:

- a) Direct contact
- b) Indirect Contact
- c) Droplet transmission
- d) vector-borne
- e) Nosocomial

7. Nurses should wash their hands:

- a) Before and after caring for each client
- b) Blood and body fluid transmission
- c) Prevent the spread of infection
- d) Routinely in the care of all clients

8. The first moment in the “Five Moments for Hand Hygiene” occurs when ?

- a) After patient contact/on leaving the point of care
- b) Before you put on personal protective equipment (i.e. gloves/aprons)
- c) As near to the patient as possible within the patient zone
- d) Before you start to gather the equipment that you need to take to the patient’s bedside

9. Gloves and aprons:

- a) Are single use items and must be worn for one task/episode of care only
- b) Should not be changed regularly as this isn’t cost effective or a good use of resources
- c) Can be worn outside of the patient’s isolation/side room
- d) Must be worn together as you can’t do any task without wearing both.

10. The prevention and control of healthcare associated infection is whose responsibility ?

- a) The responsibility of the Chief Executive and the executive Team
- b) The responsibility of the Infection Prevention and Control Team
- c) The ward manager’s responsibility - he or she has 24 hour responsibility for the ward
- d) Every individual working in any healthcare setting

Module-8 Oxygen Therapy

Duration: 2 hours

Module Objective

Primary Objectives: At the end of this module the participant will be able to provide oxygen therapy with correct technique.

Enabling Objectives: By the end of the module, participants will be able to:

- Define oxygen therapy.
- State the purpose of oxygen therapy.
- State the indications of oxygen therapy.
- List the contraindication of oxygen therapy.
- Recall the complications of oxygen therapy.
- State the safety precautions of oxygen therapy.
- Recall the oxygen delivery devices.
- Arrange the articles required for oxygen therapy.
- Perform the procedure of oxygen therapy.
- Demonstrate the various of oxygen therapy devices.
- Explain the nursing considerations of oxygen therapy.

Checklist for Oxygen Therapy

S. N.	Steps	Yes	No	Remarks
1	Determine need for oxygen therapy in patient			
2	Explain the procedure to the patient.			
3	Perform patient assessment and record findings <ul style="list-style-type: none"> • Heart rate , respiratory rate , cyanosis (+/-),abnormal respiration • vital signs including oxygen saturation (SpO₂) • level of consciousness • lab values (Po₂ ,Pao₂/Fio₂ ratio) 			
4	Verify the type of order for O ₂ therapy/ nature of O ₂ therapy.			
5	Wash hands or use alcohol base hand sanitizer.			
6	Set up oxygen equipment and humidifier.			
7	Check the condition of O ₂ pipe and flow meter.			
8	Attach tubing and nasal cannula/ oxygen mask to humidifier.			
9	Assist the patient on semi-fowler's position which permits easier chest expansion and breathing.(Head up to 30-45 degree)			

Oxygen Therapy

10	Ensure proper functioning by checking for bubbles in humidifier or feeling O ₂ at the outlet including the level of water in humidification chamber.			
11	Clean the nostril with swab stick, if the nostrils are blocked with secretions.			
12	Regulate flow meter to prescribed level (to deliver deserved Fio ₂). Reassure the level of water un humidification or not).			
13	O ₂ by nasal cannula/nasal prongs /nasal probe <ul style="list-style-type: none"> • Check nasal cannula by dipping in a bowl of water and note the O₂ coming out of cannula • Place the tips of cannula to the patient's nares and adjust straps around ear for snug fit • Put gauze pads over the ear and inspect skin behind the ear periodically for irritation/breakdown • Reconfirm the desire flow of oxygen in flow meter as prescribed 			
14	O ₂ by oxygen mask: Simple mask / rebreathe mask/ non rebreathe mask <ul style="list-style-type: none"> • Identify which mask has been prescribed. • Guide the mask to the patient face and apply it from nose downward. • Fit the metal piece of mask to confirm to the shape of nose • Apply padding behind ears as well as scalp and secure elastic band around the patient's head. • Reconfirm the desire flow of oxygen in flow meter as prescribed 			
15	Ensure that safety precautions are followed. <ul style="list-style-type: none"> • Cylinder safety • Patient safety • Fire safety 			
16	Inspect the patient and equipment frequently for flow rate, clinical condition, level of water in humidifier.			
17	Wash hands and replace the equipments.			
18	Documentation <ul style="list-style-type: none"> • Time of start and stop • Flow rate and • Observations made on the patient 			

Name and signature of ward nurse

Date/ Time

Pre-test Questionnaire

1. **The normal amount of oxygen in the blood must be in the range of**
 - a) 60-70 mm of Hg
 - b) 70-80 mm of Hg
 - c) 80-90 mm of Hg
 - d) 90-100 mm of Hg

2. **What is the purpose of oxygen therapy ?**
 - a) To increase respiratory rate and work of breathing
 - b) To increase oxygen saturation in tissues where saturation levels are low
 - c) To increase hypoxaemia and anoxaemia
 - d) To increase the work of myocardium

3. **When a person is not receiving supplemental oxygen, how much of the air the person breathe is made up of oxygen ?**
 - a) 100%
 - b) 51%
 - c) 33%
 - d) 21%

4. **Which of the following is high flow system for oxygen therapy ?**
 - a) Partial Rebreather Mask
 - b) Non-Rebreather Mask
 - c) Venturi Mask
 - d) Simple face mask

5. **A simple face mask can deliver oxygen concentration of**
 - a) 24-44%
 - b) 35-60%
 - c) 70-80%
 - d) 90-100%

6. **Which of the following device is used for delivery of oxygen in neonates and infants who can breathe on their own but still need extra oxygen ?**
 - a) Nasal cannula
 - b) Oxygen hood box
 - c) Simple face mask
 - d) AMBU bag

7. **What is the complication of oxygen therapy ?**
 - a) Retinopathy
 - b) Shock
 - c) Anemia
 - d) Acute respiratory failure

- 8. A device that moistens the air in the oxygen delivery system is called**
- a) Vaporizer
 - b) Regulator
 - c) Humidifier
 - d) Pressurizer
- 9. Nurse is caring for a client who is having difficulty in breathing. The client is lying in bed and is already receiving oxygen therapy via nasal cannula. Which of the following interventions is the nurses priority ?**
- a) Increase the oxygen flow
 - b) Assist the client to Fowler's position
 - c) Promote removal of pulmonary secretions
 - d) Attain a specimen for arterial blood gases
- 10. What is the first thing that should be done when administering oxygen ?**
- a) Attach the delivery device
 - b) Fill the reservoir bag
 - c) Open the main valve
 - d) Explain the need for oxygen therapy

Module-9 Aerosol Therapy

Duration: 2 hours

Module Objectives

Primary Objective: At the end of the module, participants will be able to demonstrate the correct technique of administering aerosol therapy.

Enabling Objectives: At the end of the module, participants will be able to:

- Define aerosol therapy.
- Identify the factors affecting aerosol drug deposition.
- State the indications of aerosol therapy.
- Identify the advantages and disadvantages of aerosol therapy.
- List the hazards of aerosol therapy to the patients and bystanders.
- Recognize the various types of aerosol generators.
- Demonstrate the use of pressurized metered dose inhalers (pMDI) device with and without the spacer.

Checklist for Aerosol Therapy

Checklist for Administering Medication via a Pressurized Metered Dose Inhaler (PMDI)

S. N.	Steps	Yes	No	Remarks
Without spacer device				
1	Shake the canister well			
2	Remove the mouthpiece cover from the pMDI canister			
3	Hold the canister upright			
4	Have the patient exhale normally			
5	Have patient place the mouthpiece into mouth, grasping securely with teeth and closed lips			
6	With initiation of inhalation, actuate the canister once and breathe in slowly and deeply through the mouth			
7	Instruct patient to hold his or her breath for 10 seconds, or as long as possible, and then to exhale slowly			
8	Wait for 60 seconds or more, before next actuation			
9	After the prescribed amount of drug has been administered, have patient remove the canister from the mouth and replace the cap			
10	Have the patient gargle and rinse with tap water after using an pMDI, as necessary			
11	Remove the canister and rinse the container with tap water and air dry it			

Aerosol Therapy

With spacer device				
1	Assemble the spacer device			
2	Shake the inhaler and spacer device well			
3	Remove the mouthpiece cover from the pMDI canister and the spacer. Attach the MDI to the spacer.			
4	Hold the canister upright			
5	Have the patient exhale normally			
6	Have patient place the mouthpiece of the spacer into mouth, grasping securely with teeth and closed lips			
7	Patient should actuate the canister, releasing one puff, then inhale slowly and deeply through the mouth			
8	Instruct patient to hold his or her breath for 10 seconds, or as long as possible, and then to exhale slowly through pursed lips			
9	Allow 15 - 30 seconds between puffs			
10	After the prescribed amount of puffs has been administered, have patient remove the MDI from the spacer and replace the caps on both			
11	Have the patient gargle and rinse with tap water after using an MDI, as necessary			
12	Disassemble the spacer device for cleaning			
13	Soak the valve holding chamber or spacer with clean water and gently shake both pieces back and forth			
14	Shake out to remove excess water and air dry			

Checklist for Administering Medication via a Dry Powder Inhaler (DPI)

S. N.	Steps	Yes	No	Remarks
	<i>Rotahaler</i>			
1	Hold the rotahaler vertically and position the two halves of the rotahaler such that the fin is not directly below the rotacap hole			
2	Remove the rotacap from its bottle and insert it into the rotacap hole with its transparent end facing downwards			
3	Have the patient hold the mouthpiece firmly with one hand and rotate the base			
4	Instruct the patient to breathe out fully and place the mouthpiece of the rotahaler between their teeth			
5	Ask to close their lips tightly around it and tilt head slightly backward and breathe in through mouthpiece rapidly and deeply			
6	Instruct to hold breath for 10 sec or as long as comfortable and breathe out normally. In case powder remains, repeat step 4			
7	Open the rotahaler and dispose the empty capsule			

Aerosol Therapy

	Revolizer			
8	Hold the revolizer at the base with one hand and pull back the mouthpiece open			
9	Remove a rotacap from its bottle and insert a rotacap into the rotacap chamber with the transparent end facing down close the mouthpiece firmly			
10	Have the patient breathe out fully, through the mouth and place the mouthpiece of the revolizer between the teeth			
11	Have the patient close lips tightly around the revolizer, sit or stand upright, keep head straight and breathe in through the mouth rapidly and deeply			
12	Instruct patient to hold the breath for 10 sec or as long as comfortable and breathe out normally. In case powder remains, repeat step 4			
13	After every use, open the mouthpiece (till both the arrows meet) and discard the empty rotacap. Close the mouthpiece and store the revolizer in the convenient carry pouch			

Checklist for Administering Medication via a Small Volume Nebulizer (SVN)

S. N.	Steps	Yes	No	Remarks
1	Remove the nebulizer cup from the device and open it. Place premeasured unit-dose medication in the bottom section of the cup			
2	Place the patient in an upright position			
3	Screw the top portion of the nebulizer cup back in place and attach the cup to the nebulizer. Attach one end of tubing to the stem on the bottom of the nebulizer cuff and the other end to the air compressor or oxygen source			
4	Turn on the air compressor or oxygen. Check that a fine medication mist is produced by opening the valve			
5	Fit the nebulizer mask to the patient or have the patient place mouthpiece into mouth and grasp securely with teeth and lips			
6	Instruct patient to breathe normally with occasional deep breaths the mouth. Hold each breath for a slight pause, before exhaling			
7	Keep the nebulizer vertical during treatment			
8	Continue this inhalation technique until all medication in the nebulizer cup has been aerosolized			
9	Have the patient gargle and rinse with tap water after using the nebulizer, as necessary			
10	Remove the tubing from the compressor			
11	Rinse the nebulizer cup and mouthpiece with warm running water or distilled water			
12	Shake off excess water and air dry			

Pre-test Questionnaire

1. Factors that influence aerosol deposition in lungs includes

- a) Particle size of drug
- b) Blood pressure of patient
- c) Time drug is given
- d) Temperature

2. After steroid inhalation, the nurse should inform the client

- a) Not to put anything by mouth for 10 minutes
- b) Rinse the mouth
- c) Hold breath for 2 to 3 minutes
- d) Breathe out through mouth

3. The rotahaler should be cleaned with

- a) 0.5% chlorine solution
- b) Tap water
- c) Boiling water
- d) Spirit solution

4. Priming is required in aerosol delivery through

- a) pMDI
- b) DPI
- c) Ultrasonic nebulizers
- d) Jet nebulizers

5. Advantage of spacer device includes

- a) Reduce risk of infection associated with pMDI
- b) Simplifies coordination of pMDI actuation
- c) Drug concentration can be modified
- d) Patient can breathe casually over few minutes

6. A device that adds invisible molecular water to gas

- a) Humidifier
- b) Aerosol Delivery Device
- c) Condensation
- d) Nebulizer

7. The ideal gas flow rate for jet nebulizers is

- a) 2-4 L/min
- b) 4-6L/min
- c) 6-8L/min
- d) 8-10L/min

8. The ideal position of the patient during nebulization is

- a) Supine position
- b) Dorsal recumbent position
- c) High fowlers position
- d) Trendelenburg position

9. Nebulizer cup and mask used for the same patient should be cleaned

- a) After each use
- b) After using for 24 hours
- c) Once a week
- d) Should not be reused

10. The following is not a common problem with all inhalers;

- a) Candida infection
- b) Throat irritation and soreness
- c) Insufficient inspiratory strength to adequately inhale the drug
- d) Difficulty using in elderly patients

Module-10 Blood Transfusion

Duration: 2 hours

Module Objective

Primary Objectives: At the end of the module, the participants will be able to describe the process of blood transfusion.

Enabling Objectives: At the end of the module, participants will be able to:

- Define Blood transfusion.
- Enumerate the purpose of blood transfusion.
- List the indications of blood transfusion.
- Enumerate contraindications of blood transfusion.
- Explain the types of blood and blood product and its storage temperature, transportation temperature & transfusion temperature and transfusion rate.
- List the articles needed for blood transfusion.
- Explain the special consideration or precautions during blood transfusion.
- Explain the nursing management before, during and after blood transfusion

Checklist and forms used for Blood Transfusion

Consent Form for blood Transfusion

Consent form

मन्जुरीनामा

मिति:

म मेरो बिरामी..... लाई यस अस्पतालमा उपचार गराउने क्रममा रगत चढाउन मन्जुर छु । रगत चढाउने प्रक्रियामा आउन सक्ने सम्पूर्ण जोखिम बारे मलाई जानकारी गराइएको छ । यस क्रममा केही भइ परी आएमा त्यस्को जिम्मेवारी स्वयं वहन गर्नेछु । साथै यस अस्पतालको कुनै पनि कर्मचारीलाई दोष दिने छैन भनी सहीछाप गर्दछु ।

दाँया	बाँया

औंठा छाप

नाम :

सही :

ठेगाना :

बिरामीसँगको नाता :

मिति :

Blood Transfusion

Check List For Blood and Blood Product Transfusion

Date:

Direction to use: (✓) all that apply

S.N.	Steps	Yes	No	Remarks
Pre-procedure (Pre transfusion)				
1	Ensure patient & prescription for transfusion			
2	Explain the purpose & procedure.			
3	Informed written consent			
4	H/O allergy to blood& blood product			
5	Obtain baseline Vital Signs : TPR,BP,SPO2			
6	Assemble necessary articles &required medicines			
7	Verify by two nurses/ medical persons			
8	Maintain the temperature of blood & blood products.			
During transfusion				
9	Reassure patient ,reconfirm blood & its product			
10	Maintain strict aseptic technique			
11	Patent IV access both hands			
12	Start infusion slowly then as recommended			
13	Remain with patient for first 15 minute, keep patient warm			
14	Monitor Vital signs & SPO ₂ :15 min after starting then ½ hourly			
In case of reaction				
15	Stop transfusion immediately & notify the physician.			
16	Remain with patient, take Vital Signs for every 5 minute.			
17	Carry out medication as per prescription			
18	Collect specimen as per protocol			
19	Frequent monitoring of V/S,G.C &Documentation			
Post transfusion procedure and teaching				
20	Ensure proper disposal			
21	Obtain V/S after 15 min than 30 min, 60 min & routine			
22	Sent post transfusion investigation			
23	Inform delay transfusion reaction &follow up visit			
24	Disinfection & replacement of equipment & documentation			
25	Provide health education as per patient's condition			

Pre-test questionnaire

- 1. Which nursing intervention takes highest priority when caring for a newly admitted client who's receiving a blood transfusion ?**
 - a) Warming the blood prior transfusion.
 - b) Informing the client that the transfusion usually takes 4 to 6 hours.
 - c) Documenting blood administration in the client chart.
 - d) Instructing the client to report any itching, chest pain, or dyspnea.
- 2. Nurse Bala has received a blood unit from the blood bank and has rechecked the blood bag properly with nurse Amrita. Prior the facilitation of the blood transfusion, nurse Bala priority check will be....**
 - a) Intake and output
 - b) NPO standing order
 - c) Vital signs
 - d) Skin turgor
- 3. A client is brought to the emergency department having experienced blood loss due to a deep puncture wound. A 3 unit Fresh-frozen plasma (FFP) is ordered. The nurse determines that the reason behind this order is to:**
 - a) Provide clotting factors and volume expansion.
 - b) Increase hemoglobin, hematocrit, and neutrophil levels.
 - c) Treat platelet dysfunction.
 - d) Treat thrombocytopenia
- 4. Nurse is caring for a client with severe blood loss who is prescribed with multiple transfusion of blood. Nurse obtains which most essential piece of equipment to prevent the risk of cardiac dysrhythmias ?**
 - a) Cardiac monitor
 - b) Blood warmer.
 - c) ECG machine.
 - d) Infusion pump
- 5. A client is receiving a first-time blood transfusion of packed RBC. How long should the nurse stay and monitor the client to ensure a transfusion reaction will not happen ?**
 - a) 15 minutes
 - b) 30 minutes
 - c) 45 minutes
 - d) 60 minutes
- 6. Nurse is administering a 2 unit packed RBC's on a client with a low hemoglobin. The nurse will prepare which of the following in order to transfuse the blood ?**
 - a) Microfusion set
 - b) Polyvinyl Pro Burette Set
 - c) Intravenous set
 - d) Tubing with an in-line filter.

- 7. To verify the age of blood cells in a blood, the nurse will check which of the following ?**
- a) Blood type
 - b) Blood group
 - c) Blood identification number
 - d) Blood expiration date
- 8. A client has an order to receive a one unit of packed RBC's. The nurse make sure which of the following intravenous solutions to hang with the blood product at the client's bedside ?**
- a) 0.9% sodium chloride.
 - b) 5% dextrose in 0.9% sodium chloride.
 - c) Balanced Multiple Maintenance Solution with 5% Dextrose.
 - d) 5% dextrose in 0.45% sodium chloride.
- 9. Nurse is caring for a client with an ongoing transfusion of packed RBC's when suddenly the client is having difficulty of breathing, skin is flushed and having chills. Which action should nurse take first ?**
- a) Administer oxygen.
 - b) Place the client on droplight.
 - c) Check the client's temperature.
 - d) Stop the transfusion
- 10. After terminating the transfusion during a reaction, which action should the nurse immediately be taken next ?**
- a) Run a solution of 5% dextrose in water.
 - b) Run normal saline at a keep-vein-open rate.
 - c) Remove the IV line.
 - d) Fast drip 200ml normal saline.

Module-11

Care of Patient with Chest Tube Drainage

Duration: 2 hours

Module Objective

Primary Objective: At the end of the module, participants will be able to provide care to the patient with chest tube drainage.

Enabling Objectives: At the end of the module, participants will be able to:

- Introduce Chest tube drain.
- Describe indication and contraindication of chest tube drain.
- Explain the purpose of chest tube insertion.
- Explain the responsibilities of nurses during pre-insertion, insertion and post insertion of chest tube.
- Explain the complication of chest tube drain.
- Describe the techniques of taking sample from chest tube drainage.
- Describe the nursing responsibilities during chest tube removal.

Checklist for Care of Patient with Chest Tube drain Insitu

Checklist for Chest Tube Drain Care

Name of Patient :

Age/Sex :

Ward

IP No. :

Doctor Unit :

Bed No. :

Diagnosis :

Date :

Date of Insertion :

Direction to use: check (√) Yes or No

S.N.	Procedure Steps	Yes	No	Remarks
1	<ul style="list-style-type: none"> • Ensure the right patient. • Reassure the patient • Obtain informed written consent • Ensure the patency of IV line 			
2	Gather all the necessary articles and equipments			
3	Perform hand hygiene			
4	Prepare emergency cart with emergency medicine and equipments.			
5	Obtain and prepare the prescribed drainage system. a. Disposable water-seal system without suction. <ul style="list-style-type: none"> • Remove the cover on the water-seal chamber fill the chamber with sterile water or normal saline to the 2.5cm mark, or as indicated. 			
6	Position the patient according to the indicated Insertion site.			
7	Use Personal protective equipment			

Care of Patient with Chest Tube Drainage

8	Provide support to the patient while the physician prepares the sterile field, anesthetizes the patient, and Inserts and sutures the chest tube.			
9	Attach chest tube it to drainage system using a connector.			
10	Wrap sterile gauze around the chest tube insertion site using sterile technique.			
11	Secure the dressing in place with adhesive tape making sure to cover the dressing completely.			
12	Write date, time, and initials on the dressing.			
13	Adjust the suction source in prescribed level if ordered.			
14	Care of patient <ul style="list-style-type: none"> • Auscultate lungs field, monitor saturation and breathing pattern. • Keep patient in comfortable position i.e. fowler’s position • Check for bubbling in water sealed chamber during coughing and expiration. • Monitor vital signs • Perform post tube insertion chest X-ray 			
15	Care of wound <ul style="list-style-type: none"> • Observe the wound site for soakage, bleeding, inflammation and tube dislodgement. • Check skin integrity for redness, inflammation and loose suture. 			
16	Care of tubing <ul style="list-style-type: none"> • Well fixed with adhesive tape • Makes sure that the drainage tubing lies with no Kinks from the chest tube to the drainage chamber. • Check for swing or clot in tube/ check for patency • Check for dependent loops • Patient teaching in care of tubing. • Avoid clamping, milking, stripping the chest tube except when replacing the chest tube drainage bottle. 			
17	Ambulation <ul style="list-style-type: none"> • Encourage the patient for ambulation and frequent position change. • Do not clamp tube during ambulation. • Maintain chest tube drain below chest level 			
18	Place two rubber-tipped clamps at the patient’s bedside for special situations			
19	Keep a spare disposable drainage system at the patient’s bedside			

Care of Patient with Chest Tube Drainage

20	<p>Chest tube removal</p> <ul style="list-style-type: none"> • Check for improved respiration. • Symmetrical rise and fall of chest. • Bilateral equal breath sound. • Decreased chest tube drainage. • Absence of bubbling in water seal chamber during expiration and coughing. • Improved chest X-ray • Inform patient before chest tube removal • Pre medication for pain management. 			
21	<p>Post chest tube removal</p> <ul style="list-style-type: none"> • Assemble all the required equipments. • Clamp the tubing • Immediately apply sterile dressing over the drain site • Chest X-ray post drain removal • Proper disposal and replacement of used articles. 			
22	<ul style="list-style-type: none"> • Provide chest physiotherapy. • Encourage deep breathing and cough exercise. • Encourage incentive spirometry. 			
23	Proper documentation			

Name and signature of ward nurse

Attending Doctor signature

Date/ Time

Pretest-questionnaire

- 1. How much amount of fluid exists between the parietal pleura and the visceral pleura ?**
 - a. 20 ml
 - b. 30ml
 - c. 25ml
 - d. 35ml
- 2. Which is not the indication for chest tube drain insertion ?**
 - a. Chylothorax
 - b. Pleural effusions
 - c. Pericardial effusion
 - d. Cholelithiasis
- 3. What is the contra-indications of chest tube drain ?**
 - a. Chylothorax
 - b. Pleural effusions
 - c. Pericardial effusion
 - d. Coagulopathies
- 4. What is the insertion site for pneumothorax ?**
 - a. 3rd intercostals space
 - b. 4th intercostals space
 - c. 5th intercostals space
 - d. 6th intercostals space
- 5. What is the indication for chest tube removal ?**
 - a. Chest x-ray showing lung re-expansion
 - b. Presence of an air leak
 - c. Presence of drainage
 - d. Evidence of respiratory compromise
- 6. A patient with a chest tube has no fluctuation of water in the water seal chamber. What could be the cause of this ?**
 - a. This is an expected finding.
 - b. The lung may have re-expanded or there is a kink in the system.
 - c. The system is broken and needs to be replaced.
 - d. There is an air leak in the tubing.
- 7. While helping a patient with a chest tube reposition in the bed, the chest tube becomes dislodged. What is your immediate nursing intervention ?**
 - a. Stay with the patient and monitor their vital signs while another nurse notifies the physician.
 - b. Place a sterile dressing over the site and tape it on three sides and notify the physician.
 - c. Attempt to re-insert the tube.
 - d. Keep the site open to air and notify the physician.

Care of Patient with Chest Tube Drainage

8. **A patient is receiving positive pressure mechanical ventilation and has a chest tube. When assessing the water seal chamber what do you expect to find ?**
 - a. The water in the chamber will increase during inspiration and decrease during expiration.
 - b. There will be continuous bubbling noted in the chamber.
 - c. The water in the chamber will decrease during inspiration and increase during expiration.
 - d. The water in the chamber will not move.

9. **You are providing care to a patient with a chest tube. On assessment of the drainage system, you note continuous bubbling in the water seal chamber and oscillation. Which of the following is the CORRECT nursing intervention for this type of finding ?**
 - a. Reposition the patient because the tubing is kinked.
 - b. Continue to monitor the drainage system.
 - c. Increase the suction to the drainage system until the bubbling stops.
 - d. Check the drainage system for an air leak.

10. **You're assessing a patient who is post-opt from a chest tube insertion. On assessment, you note there is 50 cc of serosanguinous fluid in the drainage chamber, fluctuation of water in the water seal chamber when the patient breathes in and out, and bubbling in the suction control chamber. Which of the following is the most appropriate nursing intervention ?**
 - a. Document your findings as normal.
 - b. Assess for an air leak due to bubbling noted in the suction chamber.
 - c. Notify the physician about the drainage.
 - d. Milk the tubing to ensure patency of the tubes

Module-12

Problems Caused by Immobility and their Prevention

Duration: 4 hours

Module Objective

Primary Objective: At the end of the module, the participants will be able to identify the problems caused by immobility and the ways of preventing them.

Enabling Objectives: At the end of the module, participants will be able to

- Define immobility.
- Explain the risk factors for immobility.
- Explain about the complications caused by immobility.
- Explain effects of immobility on different body systems.
- Assess the problems caused by immobility on different body systems.
- Explain preventive measures for problems caused by immobility.
- Demonstrate the different bed mobility activities.
- Demonstrate the different Range of Motion Exercises.
- Demonstrate the different positioning.
- Demonstrate the different stretching and strengthening exercises.
- Demonstrate the different strengthening exercise.
- Demonstrate the chest physiotherapy techniques.
- Demonstrate the use of assistive devices: wheelchair, weight bearing on tilt table.

Banner Mobility Assessment Test (BMAT)

B.M.A.T. - Banner Mobility Assessment Tool for Nurses

Test	Task	Response	Choose Most Appropriate Equipment/Device(s)	Fail =	Pass
Assessment Level 1 Assessment of: -Cognition -Trunk strength -Seated balance	Sit and Shake: From a semi-reclined position, ask patient to sit upright and rotate* to a seated position at the side of the bed; <i>may use the bedrail.</i> Note patient's ability to maintain bedside position. Ask patient to reach out and grab your hand and shake making sure patient reaches across his/her midline. Note: Consider your patients cognitive ability, including orientation and CAM assessment if applicable.	Sit: Patient is able to follow commands, has some trunk strength; caregivers may be able to try weight-bearing if patient is able to maintain seated balance greater than two minutes (without caregiver assistance). Shake: Patient has significant upper body strength, awareness of body in space, and grasp strength.	MOBILITY LEVEL 1 - Use total lift with sling and/or repositioning sheet and/or straps. - Use lateral transfer devices such as roll board, friction reducing (slide sheets/tube), or air assisted device. NOTE: If patient has 'strict bed rest' or bilateral 'non-weight bearing' restrictions, do not proceed with the assessment; patient is MOBILITY LEVEL 1.	MOBILITY LEVEL 1	Passed Assessment Level 1 = Proceed with Assessment Level 2.
Assessment Level 2 Assessment of : -Lower extremity strength -Stability	Stretch and Point: With patient in seated position at the side of the bed, have patient place both feet on the floor (or stool) with knees no higher than hips. Ask patient to stretch one leg and straighten the knee, then bend the ankle/flex and point the toes. If appropriate, repeat with the other leg.	Patient exhibits lower extremity stability, strength and control. May test only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).	MOBILITY LEVEL 2 - Use total lift for patient unable to weight-bear on at least one leg. - Use sit-to-stand lift for patient who can weight-bear on at least one leg.	MOBILITY LEVEL 2	Passed Assessment Level 2 = Proceed with Assessment Level 3.
Assessment Level 3 Assessment of: -Lower extremity strength for standing	Stand: Ask patient to elevate off the bed or chair (seated to standing) using an assistive device (cane, bedrail). Patient should be able to raise buttocks off bed and hold for a count of five. May repeat once. Note: Consider your patients cognitive ability, including orientation and CAM assessment if applicable.	Patient exhibits upper and lower extremity stability and strength. May test with weight-bearing on only one leg and proceed accordingly (e.g., stroke patient, patient in cast). If any assistive device (cane, walker, crutches) is needed, patient is Mobility Level 3.	MOBILITY LEVEL 3 - Use non-powered raising/stand aid; <i>default to powered sit-to-stand lift if no stand aid available.</i> - Use total lift with ambulation accessories. - Use assistive device (cane, walker, crutches). NOTE: Patient passes Assessment Level 3 but requires assistive device to ambulate or cognitive assessment indicates poor safety awareness; patient is MOBILITY LEVEL 3.	MOBILITY LEVEL 3	Passed Assessment Level 3 AND no assistive device needed = Proceed with Assessment Level 4. Consult with Physical Therapist when needed and appropriate.
Assessment Level 4 Assessment of: -Standing balance -Gait	Walk: Ask patient to march in place at bedside. Then ask patient to advance step and return each foot. Patient should display stability while performing tasks. Assess for stability and safety awareness.	Patient exhibits steady gait and good balance while marching, and when stepping forwards and backwards. Patient can maneuver necessary turns for in-room mobility. Patient exhibits safety awareness.	MOBILITY LEVEL 3 If patient shows signs of unsteady gait or fails Assessment Level 4, refer back to MOBILITY LEVEL 3; patient is MOBILITY LEVEL 3.	MOBILITY LEVEL 4 MODIFIED INDEPENDENCE Passed = No assistance needed to ambulate; use your best clinical judgment to determine need for supervision during ambulation.	Passed Assessment Level 4 = Proceed with Assessment Level 4.

Always default to the safest lifting/transfer method (e.g., total lift) if there is any doubt in the patient's ability to perform the task.

Originated: 2011; revised: 2/27/12, 3/02/12, 3/07/12, 3/19/12, 4/19/12, 5/01/12, 5/03/12, 05/20/2013

Pre-test Questionnaire

1. **Which would be the earliest assessment that would indicate permanent damage to tissues because of compression of soft tissue between a bony prominence and a mattress ?**
 - a. Nonblanchable erythema
 - b. Circumoral cyanosis
 - c. Tissue necrosis
 - d. Skin abrasion

2. **Which site is the greatest risk for skin breakdown when the patient is lying in a lateral position ?**
 - a. Occipital.
 - b. Ischial tuberosity
 - c. Greater trochanter
 - d. Scapulae

3. **Which sites are at the greatest risk for skin breakdown when the patient is sitting in a wheelchair ?**
 - a. Bilateral scapulae
 - b. Ischial tuberosities
 - c. Trochanters
 - d. Malleoli

4. **Which is the primary reason why immobilized people develop contractures ?**
 - a. Muscles that flex, adduct, and internally rotate are stronger than weaker opposing muscles
 - b. Muscle mass and strength decline at a rate of 5 to 10 percent per week
 - c. Muscular contractures occur because of excessive muscle flaccidity
 - d. Muscle catabolism exceeds muscle anabolism

5. **Which health problem would place a patient at the greatest risk for complications associated with immobility ?**
 - a. Quadriplegia
 - b. Incontinence
 - c. Hemiparesis
 - d. Confusion

6. **Which causes the MOST concern when a person is in the supine position ?**
 - a. Sacral pressure
 - b. Urinary tract infection
 - c. Venous pooling
 - d. Increased cardiac workload

7. **Logrolling when positioning a patient is most important when the patient has had**
 - a. A long leg cast applied
 - b. Abdominal surgery
 - c. Spinal cord trauma
 - d. Cerebral vascular accident

8. **Which medical treatment is specific for a patient with a stage IV pressure ulcer with eschar ?**
 - a. Heat lamp treatment three times a day
 - b. Application of a topical antibiotic
 - c. Cleansing irrigations every shift
 - d. Debridement of the wound

9. **Which complication of immobility would be of most concern ?**
 - a. Dehydration
 - b. Incontinence
 - c. Contractures
 - d. Hypertension

10. **Which stage pressure ulcer would just have partial thickness skin loss involving epidermis and dermis ?**
 - a. Stage I
 - b. Stage II
 - c. Stage III
 - d. Stage IV

Module-13

Ethical and Legal Aspects of Nursing

Duration: 4 hours

Module Objective

Primary Objective: At the end of the module, the participants will be able to describe ethical and legal aspects of nursing

Enabling Objectives: At the end of the module, participants will be able to:

- Define ethics.
- Describe ethical principles.
- Explain ethical responsibilities of nurses.
- Define legal terminologies.
- List the examples of negligence, malpractice, and unprofessional conduct.
- Describe professional liabilities in nursing.
- Explain legal responsibilities of nurses.

Checklists for Ethical and Legal Aspects of Nursing

Rating scale for evaluating nurse's performance from ethical and legal point of view

The nurse working in the unit will be evaluated for his/her performance from legal and ethical aspects on the basis of following guideline.

Never = 1, Rarely = 2, Sometimes = 3, Often = 4, Always = 5

SN	Criteria	1	2	3	4	5	Remarks
1.	Maintain good rapport with patient and family a) Greet and introduce self. b) Provide orientation regarding specific units and procedure. c) Obtains informed consent before doing any procedure.						
2.	Carrying out prescribed orders a) Carry out physician prescription appropriately and accurately b) Check any orders that a client questions and verify with physician c) Verify prescription with physician if patient's condition has changed d) Question and record verbal orders to avoid miscommunication. Nurse should record time, date, physician's name and the orders. e) Refuse to carry out physician prescription that the nurses know to be harmful to the client f) Question standing orders, if confused or unfamiliar						

Ethical and Legal Aspects of Nursing

3	<p>Maintain standard while providing nursing care</p> <ul style="list-style-type: none"> a) Assess the patient’s condition accurately. b) Find out and document actual and potential health problems of assigned patients. c) Set realistic goals to solve the identified problems d) Plan and implement the nursing interventions based on scientific rational e) Evaluate the patient’s condition accurately in between and at the end of the care. f) Reassess the patient to identify new problems and gain new insight to previous problem. 						
4.	<p>Maintain patient’s dignity</p> <ul style="list-style-type: none"> a) Explain and obtains consent before each procedure. b) Involve patient/family members in treatment decision making. c) Respect patient’s cultural beliefs. d) Expose only necessary body part for any interventions e) Do not share patient’s information with unrelated personnel. 						
5.	<p>Maintain safety and security of the patient</p> <ul style="list-style-type: none"> a) Identify the patient before initiating any interventions. b) Function within the scope of practice and job description c) Protect client from preventable injuries such as falls, burn d) Protect patient from nosocomial infection by following standard precaution. e) Restrain as per need by using appropriate method the patient f) Delegate tasks to persons with the knowledge and skill to carry them out 						
6.	Follow hospital protocols and other standard concerning to health care						
7.	Follow 10 rights while administering drugs to the patients.						

Ethical and Legal Aspects of Nursing

8.	<p>Maintain accurate record and report</p> <ul style="list-style-type: none"> a) Vital signs, patient's problems (subjective and objective findings) b) Nursing procedures (procedure name; when performed; who performed; how performed; client tolerated; adverse reactions, outcome, findings etc) c) Sudden deteriorate in patient's condition, immediate actions and outcome d) Obstacles/barriers faced during care such as inadequate human resources, cultural practices, administrative problems, inadequate supplies and equipment 						
9.	<p>Maintain up to date record of controlled drugs</p> <ul style="list-style-type: none"> a) Keep the drugs safely in locked cabinet. b) Prevent the abuse of drug by self and colleagues. c) Report loss and breakage of drug on time 						
10.	<p>Handles the medico-legal cases properly</p> <ul style="list-style-type: none"> a) Maintain the record of medicolegal cases. b) Notify hospital police and authority during admission, discharge, absconded and transfer of medicolegal cases. 						
11	Collaborates with other health professionals as needed						
12	Advocates for patient and family						
13	Bargain collectively for important issues						
14	Report crimes, torts and unsafe practices to concerned authority						

Role play: Participants are provided a situation, or encourage creating situation where they can use ethical and legal knowledge by role play, group discussion or question answer. The competency is assessed by checklist.

- Preparation 3 minute
- Role play = 7 minute
- Discussion = 10 minute

Situation No. 1

Patient: Acute appendicitis

Situation: Pre-operative interventions

- Patient 1
- Doctor 2= surgeon 1, anesthesiologist 1
- Nurse 2
- Ward attendant 1
- Family member 2
- Observer = remaining member

Instruction for participants of simulation

- Communication (therapeutic), respect, counseling, teaching, instruction
- Informed consent
- Safety, comfort, privacy
- Confidentiality
- Documentation
- Following prescription, organizational policy

Practice: (negligence, abandonment, unprofessional behavior)

- Preparation 3 minute
- Action/role play- 7 minute

Discussion – 10 minute

- Feelings of observer
- Feelings of each participants
- What are the major unprofessional conduct, malpractice?
- What would be the correct behavior?
- Self evaluate own behavior in ethical and legal point of view.

Situation No. 2

Birth center

- Patient: Primigravid mother in first stage of labor
- Nurse 2
- Helper 1
- Husband 1
- Family member 1
- Observer

Supervisor/facilitator: Observe behavior of the participants in following areas:

- Communication with mother, spouse, family member, health team members
- Monitoring of the fetal and maternal condition
- Safety, comfort
- Privacy
- Confidentiality
- Documentation: partograph, birth certificate, other documentation
- Continue information about the progress of labor and condition of mother and baby
- Disclosure of the baby's sex
- Following organizational policy

Discussion

1. Feelings of observer
2. Feelings of each participant
3. What is the major unprofessional conduct, malpractice?
4. What would be the correct behavior?
5. Self evaluate own behavior in ethical and legal point of view.

Situation No. 3

A 28 years lady diagnosed as mental retardation living in a rehabilitation center for the last 3 years. She has been diagnosed as having moderate type of mental retardation. Her family members come to visit her very occasionally in the center. She is also hyperactive and sometimes she goes outside without anyone's permission and she has lost the way back to the center sometimes before 9 months ago. She has the history of regular periods, but all of sudden her period was stopped and the caretakers of the center took her for check up, she was found pregnant. Now the care takers of the center are in a very confusing and dilemma situation and worried about what to do? Whether let the pregnancy be continued or abort the pregnancy.

How would you consider this situation keeping in mind the human rights as well as the outcome of the pregnancy or do you suggest to abort Discuss

Situation No.4

A 35 years old mother working as a school teacher living in one of the city of Kathmandu valley. She has one son who is 9 years old, but the child has some problems like difficulty in speech, not able to take care of his elimination needs, hyperactive, symptoms of headbanging etc. Now the mother want to have next pregnancy and came to the clinic for further consultation.

So as a nurse what will you assess in this situation ?

What would be the ethical issue in this condition ?

What suggestion will you provide ?

Pretest-Questionnaire

- 1. The moral principles that guide a person's behavior is**
 - a) Moral
 - b) Ethics
 - c) Law
 - d) Tort

- 2. Informed consent is a method that promotes**
 - a) Autonomy
 - b) Veracity
 - c) Advocacy
 - d) Justice

- 3. Avoids risk of harm during the performance of nursing actions is an example of --**
 - a) Justice
 - b) Standard
 - c) Beneficence
 - d) Nonmaleficence

- 4. Triage of the patient promote the principle of**
 - a) Fidelity
 - b) Justice
 - c) Veracity
 - d) Beneficence

- 5. Nurses support principles of -----by health education and counseling**
 - a) Veracity
 - b) Fidelity
 - c) Maleficence
 - d) Beneficence

- 6. A confused patient is left alone without side rails up, and the bed in a high position, the patient falls and breaks a hand. The duty nurse is liable for**
 - a) Assault
 - b) Battery
 - c) Negligence
 - d) Patient right

- 7. Obtaining informed consent is the responsibility of the:**
 - a) Patient
 - b) Doctor
 - c) Nurse
 - d) Primary care provider

8. A health care issue often becomes an ethical dilemma because

- a) Client's legal rights coexist with a health professional's obligation.
- b) Decisions must be made quickly, often under stressful conditions.
- c) Decisions must be made based on value systems.
- d) The choices involved do not appear to be clearly right or wrong.

9. A client who had a "Do Not Resuscitate" order passed away. After verifying there is no pulse or respirations, the nurse should next

- a) Have family members say goodbye to the deceased.
- b) Call the transplant team to retrieve vital organs
- c) Remove all tubes and equipment (unless organ donation is to take place), clean the body, and position appropriately.
- d) Call the funeral director to come and get the body.

10. What is the best practice for a nurse to avoid law suites ?

- a) Practice with the scope of your expertise
- b) Always put the patients' rights and welfare first
- c) Observe proper documentation
- d) All of the above

Pretest/Post test questionnaire

Multiple choice questionnaire. Please circle the correct answers.

1. **Usually “NPO after midnight” is followed because anaesthesia depress gastrointestinal functioning and there is a danger the patient would during the administration of a general anaesthesia.**
 - a. Arrive to the phase of excitement
 - b. Arrive to medullary depression
 - c. Increase gastric secretions
 - d. Vomit and aspirate

2. **Which of the following should be given highest priority when receiving patient in the OT ?**
 - a. Assess level of consciousness
 - b. Verify patient identification and informed consent
 - c. Assess vital signs
 - d. Check for jewelry, gown, manicure and dentures

3. **During suction procedure the suction should be applied**
 - a. when withdrawing the suction catheter
 - b. when inserting the suction catheter
 - c. Either during insertion or withdrawal, depending on when the patient coughs
 - d. Only if the patient coughs

4. **The recommended pressure setting of suction unit for adult patient is**
 - a. 130 mmHg
 - b. 140 mmHg
 - c. 120 mmHg
 - d. 150 mmHg

5. **Which of the following is a contraindication for inserting a nasopharyngeal airway ?**
 - a. The patient is able to tolerate an oropharyngeal airway.
 - b. The patient has a fractured base of skull.
 - c. The patient has hypoxaemia.
 - d. The patient has a chest infection.

6. **The normal CVP measurement range is**
 - a. 4 to 8 cm H₂O
 - b. 6-10 cm H₂O
 - c. 8-12 cm H₂O
 - d. 2-10 cm H₂O

7. **The tip of CVP catheter is usually placed at**
 - a. RA and SVC Junction
 - b. RA and IVC junction
 - c. RV apex

d. Between the RA and RV

8. The CVP is typically elevated in

- a. Hypovolaemia
- b. Congestive cardiac failure
- c. Cardiac tamponade
- d. Raised ICP

9. How deep should chest compressions be for an adult victim ?

- a. At least 1 inch (2.5 cm) deep.
- b. At least 2 inches (5 cm) deep.
- c. At least 5 inches (7.5 cm) deep.
- d. At least 7 inches (10 cm) deep.

10. What are the rate and depth for chest compression on an adult ?

- a. 60-80 compression per minute and depth of about 2.5 cm
- b. 80-100 compression per minute and depth of about 4 cm
- c. 120-140 compression per minute and depth of about 6.4 cm
- d. 100-120 compression per minute and depth of at least 5 cm

11. If you suspect that an unresponsive victim has head or neck trauma, what is the preferred method for opening the airway ?

- a. Head tilt – chin lift
- b. Jaw thrust
- c. Head tilt – neck lift
- d. Avoid opening the airway

12. Which of the following is high flow system for oxygen therapy ?

- a. Partial Rebreather Mask
- b. Non-Rebreather Mask
- c. Venturi Mask
- d. Simple face mask

13. Which of the following device is used for delivery of oxygen in neonates and infants who can breathe on their own but still need extra oxygen ?

- a. Nasal cannula
- b. Oxygen hood box
- c. Simple face mask
- d. AMBU bag

14. What is the complication of oxygen therapy ?

- a. Retinopathy
- b. Shock
- c. Anemia
- d. Acute respiratory failure

- 15. After steroid inhalation, the nurse should inform the client**
- not to put anything by mouth for 10 minutes
 - rinse the mouth
 - hold breath for 2 to 3 minutes
 - breathe out through mouth
- 16. The rotahaler should be cleaned with**
- 0.5% chlorine solution
 - tap water
 - boiling water
 - spirit solution
- 17. Which nursing intervention takes highest priority when caring for a newly admitted client who's receiving a blood transfusion ?**
- Warming the blood prior transfusion.
 - Informing the client that the transfusion usually takes 4 to 6 hours.
 - Documenting blood administration in the client chart.
 - Instructing the client to report any itching, chest pain, or dyspnea.
- 18. Clamping a chest tube is contraindicated during**
- Replacing the chest drainage system,
 - Ambulating or transporting patient
 - Assessing for an air leak
 - Removal of chest tube
- 19. The end of chest tube is submerged in sterile normal saline. The tube should be approximately..... below the water level**
- 1.5 cm
 - 2.5cm
 - 5cm
 - 7.5cm
- 20. Nurse1 has received a blood unit from the blood bank and has rechecked the blood bag properly with nurse 2. Prior the facilitation of the blood transfusion, nurse 1 priority check which of the following ?**
- Intake and output.
 - NPO standing order.
 - Vital signs.
 - Skin turgor.
- 21. A client is brought to the emergency department having experienced blood loss due to a deep puncture wound. A 3 unit Fresh-frozen plasma (FFP) is ordered. The nurse determines that the reason behind this order is to**
- Provide clotting factors and volume expansion.
 - Increase hemoglobin, hematocrit, and neutrophil levels.
 - Treat platelet dysfunction.
 - Treat thrombocytopenia.

- 22. What is the insertion site for pneumothorax ?**
- a. 3rd intercostals space
 - b. 4th intercostals space
 - c. 5th intercostals space
 - d. 6th intercostals space
- 23. What is the indication for chest tube removal ?**
- a. Chest x-ray showing lung re-expansion
 - b. Presence of an air leak
 - c. Presence of drainage
 - d. Evidence of respiratory compromise
- 24. Which would be the earliest assessment that would indicate permanent damage to tissues because of compression of soft tissue between a bony prominence and a mattress ?**
- a. Nonblanchable erythema
 - b. Circumoral cyanosis
 - c. Tissue necrosis
 - d. Skin abrasion
- 25. To prevent complications of immobility, what would be the most effective activity on the first post operative day for a patient who has had abdominal surgery ?**
- a. Turn, cough, and deep breathe every 30 min while awake
 - b. Ambulate patient to chair in the hall
 - c. Passive ROM 4 times a day
 - d. Immobility is not a concern the first postoperative day
- 26. Nurses support principles of -----by health education and counseling.**
- a. Veracity
 - b. Fidelity
 - c. Maleficence
 - d. Beneficence
- 27. A confused patient is left alone without side rails up, and the bed in a high position, the patient falls and breaks a hand. The duty nurse is liable for**
- a. Assault
 - b. Battery
 - c. Negligence
 - d. Patient right
- 28. Which is the main assessment tool used in unconscious patient ?**
- a. Glasgow Coma Scale
 - b. Braden risk Assessment Tool
 - c. Motor assessment scale
 - d. Rating scale

29. Barden risk assessment scale for

- a. Cognitive function
- b. Oral mucosa
- c. Skin integrity
- d. Motor response

30. What is most important for the nurse to first assess unconscious the patient's ?

- a. health history
- b. airway patency
- c. neurologic status
- d. status of bodily functions

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List of Contributors

Ms. Roshani Laxmi TuiTui, Director, Nursing and Social Security Division
Prof. Pramila Dewan, Registrar, National Academy of Medical Sciences
Prof. Goma Devi Niraula Shrestha , Nursing Director, Bir Hospital
Prof. Takma K.C, Maharajgunj Nursing Campus
Prof. Chandrakala Sharma, Maharajgunj Nursing Campus
Associate Prof. Lalita Rai, Maharajgunj Nursing Campus
Dr. Ravi Ram Shrestha, Anesthesiologist, Bir Hospital
Dr. Pradeep Vaidya, Anesthesiologist, Bir Hospital
Dr. Prajwal Shrestha, Pulmonologist BirHospital
Dr. Subash Prasad Acharya, Anesthesiologist, Tribhuvan University Teaching Hospital
Ms. Hira Niraula, Hospital Nursing Administrator, Bir Hospital
Ms. Kabita Pandey, Hospital Nursing Administrator, Nursing and Social Security Division
Ms. Sochana Sapkota, Hospital Nursing Administrator, National Trauma Center
Ms. Sangita Shrestha, Hospital Nursing Administrator, Bir Hospital Nursing Campus
Ms. Bala Rai, Hospital Nursing Administrator, Nursing and Social Security Division
Ms. Tulza K.C., Associate Professor, Maharajgunj Nursing Campus
Ms. Bimala Panthi, Associate Professor, Patan Academy of Health Sciences
Ms. Bhagawati Kalikoty, Associate Professor, Maharajgunj Nursing Campus
Ms. Bimala Adhikari, Associate Professor, Patan Academy of Health Sciences
Ms. Tilrupa Bhattarai Assistant Professor, Maharajgunj Nursing Campus
Ms. Sarita Shrestha, Nursing Officer, Bir Hospital
Ms. Laxmi Joshi, Nursing Officer, Bir Hospital
Ms. Yasoda Baral, Nursing Officer, Nursing and Social Security Division
Ms. Uma Kumari Rijal, Nursing Officer, Curative Division
Ms. Amrita Pahadi, Community Nursing Officer, Nursing and Social Security Division
Ms. Anuja Adhikari, Nursing Officer, National Trauma Center
Ms. Helika Shrestha, Nursing Officer, National Trauma Center
Ms. AkritiShree Dahal, Nursing Officer, Bir Hospital Nursing Campus
Ms. Sabita Karki Nursing Officer, Bir Hospital Nursing Campus
Ms. Bharati Sharma, Nursing Officer, Bir Hospital Nursing Campus
Ms. Samjhana Shrestha, Nursing officer, Mental Hospital
Ms. Sapana B.K., Nursing Officer, National Trauma Center
Mr. Pravin K. Yadav, Physiotherapist, National Trauma Center
Ms. Kalpana Pokhrel, Nursing Officer, Nursing and Social Security Division
Ms. Krishna Subedi, Nursing Chief, Man Mohan Memorial Teaching Hospital
Ms. Mina Gurung, Nursing Chief, Nepal Orthopedic Hospital
Ms. Sita Kunwar, Associate Professor, Om Health Nursing campus
Ms. Junar Bhattarai, Associate Professor, Om Health Campus
Ms. Sumita Pathak, Associate Professor, Kathmandu Model Hospital School of Nursing
Ms. Nita Dangol, Senior Nursing Supervisor, Shahid Gangalal National Heart Center
Ms. Pratibadan Dangol, Nursing Supervisor, Shahid Gangalal National Heart Center
Ms. Sulekha Shrestha, Nursing Supervisor, Dhulikhel Hospital
Ms. Kopila Luitel, Nursing Supervisor, Shahid Gangalal National Heart Center
Ms. Laxmi Shrestha , Nursing Supervisor, Bhaktapur Cancer Hospital

Abbreviations

Ms. Yamuma Basnet, Hospital Nursing Inspector, National Trauma Center
Ms. Prema Khagi, NICU In charge, Tribhuvan University Teaching Hospital
Ms. Uma Khanal , ICU Incharge, Manmohan Cardio Thoracic and Vascular Center
Ms. Gayatri K. Paudel, ICU Incharge, Dhulikhel Hospital
Ms. Purna Laxmi Shrestha, ICU Incharge, Monmohan Cardio Thoracic and Vascular center
Ms.Roji Shakya, OPD Incharge, Shahid Gangalal National Heart Center
Ms. Rajyalaxmi Bhele, OT Incharge, Shahid Gangalal National Heart Center
Ms. Binita Tamrakar, Nursing Officer, Shahid Gangalal National Heart Center
Ms. Kaveri Thapa Nursing Incharge, Nepal Mediciti Hospital
Ms. Ushna Shrestha, Nursing Incharge, Shahid Gangalal National Heart Center
Ms. Deoki Saru, Nursing Incharge, Shahid Gangalal National Heart Center
Ms. Bedana Maharjan, Nursing officer, Dhulikhel Hospital
Ms. Jwala Subedi, OT/CSSD Incharge, Om Hospital and Research Center
Ms. Neelam Devkota, Infection Control Nurse, Om Hospital and Research Center

