Nursing Handbook

NURSING EXCELLENCE

1st Edition

Chapter: - 07

Standard: - 48

Objective Element: - 216

U. N MEHTA Institute of Cardiology and Research Centre, Ahmedabad, Gujarat

Nursing Excellence Chapters:-

1.	Nursing Resource Management (NRM)
2.	Nursing Care of Patient (NCP)
3.	Management of Medications (MOM)
4.	Education, Communication and Guidance (ECG)
5.	Infection Control practices (ICP)
6.	Empowerment and Governance (EG)
7.	Nursing Quality Indicators (NQI)

CHAPTER-1 Nursing Resource Management (NRM)

1. **Nurse to patient Ratio within a hospital: -**
    - Nurse & Patient Ratio for critical care areas:
        - 1:1 for ventilated patients
        - 1:2 for non-ventilated patients
    - Nurse & Patient Ratio for high dependency areas is 1:3
    - Nurse & Patient Ratio for Non- critical care areas is 1:6 .

2. **What is Credentialing & Privileging?**

    Answer:
    - **Credentialing:** Process of obtaining, verifying and assessing the qualification of a healthcare provider
    - **Privileging:** Process of authorizing all medical professionals to admit and treat patients as per their qualifications and skills.
    - **Review of Privileges: -** Every year, privileges granted will be renewed &/or it will be renewed whenever department is changed.
    - Credential & Privileging Committee is responsible for this.

3. **Topics covered in annual & induction training?**

    Answer:

H.E.A.R.T (Human Empowering & Employment Awareness Resource Training) Induction training includes:

Sr. No	Name of Topic
1	Introduction of Hospital - UNMICRC
2	Human Resource (HR) Management Training
3	Soft Skill Training & Patient's Rights & Education
4	Basic Life Support Training & Patient Care Training
5	Bio-Medical Waste Management
6	Training of Facility Management & Safety
7	Orientation of Quality Management - NABH, NMC, JCI, MIS NABH, Emergency NABH, NABL & Kayakalp
8	Emergency Preparedness & Disaster Management
9	Infection Prevention & Control Programme
10	Ergonomics at Workplace & Dietary Habits
11	To know about Hospital (Hospital Round)
12	Computer Training & HMIS Training
13	Departmental Training

H.E.A.R.T Indication training: - All the employees must have to undergo two days H.E.A.R.T Induction training program at the time of joining.

H.E.A.R.T (Human Empowering & Employment Awareness Resource Training)Annual training includes

Day-1 Topics

Sr. No	Name of Topic
1	Introduction & General Instructions of UNMICRC
2	Human Resource (HR) Management Training
3	Health Care Communication
4	Orientation of Quality Management - NABH, NMC, JCI & Kayakalp ,NABL
5	Training of Facility Management & Safety
6	Orientation of NABL & Primary Sample Collection Manual
7	Bio-Medical Waste Management & Infection Prevention & Control Programme
8	Emergency Preparedness & Disaster Management
9	Basic Life Support Training & Patient Care Training
10	Ergonomics at Workplace & Dietary Habits
11	Computer Training
12	HMIS Training
13	Need Based Departmental Training

Day-2 Topics

Sr. No	Name of Topic
1	BLS & ACLS
2	PALS & NALS
3	Critical Care Patient Handling
4	MRD Documentation & Patient's Rights & Education
5	Nursing Care Procedures
6	Bio Medical Equipment Handling
7	Orientation of Medical Imagine Services (MIS) NABH
8	Orientation of Emergency NABH

H.E.A.R.T Annual training: - All the employees of the Institute must have to undergo two days certified H.E.A.R.T program annually.

4. **<u>Which type of training nurses are received within an institute?</u>**
    - Hospital Induction Training
    - Nursing Induction training (15 days training to new joinee nursing staff)
    - Annual training (H.E.A.R.T programme)
    - Skill lab training
    - Gyan Hridayam Training
    - CNE (Last Saturday of every month)
    - Departmental Need based training

5. How employee health need is being addressed at your hospital?

Answer:

- Pre-Employment Health Checkup
- Regular Annual Employment Health Checkup
- Pre and post exposure prophylactic vaccination against Hepatitis.
- Employees who are working in diet- Canteen and Linen-Laundry department: tetanus vaccine as and when required.
- Training on Occupational Hazards, codes and other safety measures.
- PPEs for safety
- Health Insurance Coverage
- Adequate and appropriate facilities for hand hygiene in all patient care area such as liquid hand wash, large wash basin with elbow operated taps, tissue paper/ hand dry, hand rubs etc.
- The hospital defines the conditions where isolation, barrier nursing or both isolation and barrier nursing is required. The organization provides barrier nursing facilities such as clothing, mask, gloves etc.
- For Driver – Audiometry and visual Test.
- For Employees working in Medical Air Compressor unit /Vacuum Compressor Unit/HVAC Plan (High Noise Areas) – Audiometry test.
- For Employees working in Radiation areas-
- Thyroid Profile as and when required.
- Institute provides TLD badges and lead apron and appropriate glass wear.
- Regular test of TLD and lab apron are being performed.

6. Describe stages of performance appraisal.

Answer:

- Stage 1 - At this stage, concerned employee will rate his / her performance during the year and handover the form to the immediate supervisor. (note: stage 1 is not applicable for junior level staff)
- Stage 2 - Immediate supervisor will rate the performance of the employee based on self-rating by the employee and objective assessment by the supervisor.
- Stage 3 - At this stage the reviewing authority will review the rating given by the immediate supervisor and finalize the rating.

Institute shall use 5 points rating scale as suggested latter in this section.

Rating	Descriptions	Points
Performance rating 'A'	Performance exceptional and consistently high level	5
Performance rating 'B'	Performance superior and consistently exceeds overall performance requirements.	4
Performance rating 'C'	Performance is satisfactory meets most parameters of performance requirements. Weakness offset by strong points.	3
Performance rating 'D'	Performance is below satisfactory, however displays progress towards an enhanced performance	2 or less

7. <u>Other than performance appraisal how do we appreciate our employee?</u>

Answer:

All the employees are assessed by the institute on various individual qualities (parameters) and regardless of their designation or seniority, qualified employees are being awarded with:

1. Star of the week
2. Star of the month

8. <u>Mention 5 employees' rights and 5 responsibilities.</u>

Answer:

Employee rights:

1. Right to be treated equally
2. Right to receive salary on periodic basis
3. Right to have leave as per policy
4. Right to have safe and secure working environment
5. Right to be treated with respect and dignity
6. Right to complaint
7. Right to have privacy and confidentiality of information

Employee responsibilities:

1. To treat others equally
2. To complete assigned work sincerely.
3. To follow rules and regulation of hospital
4. Not to damage or misuse hospital property
5. Not to participate in Fraud or corruption and notify the authority about the same if anyone is involved in such thing.
6. To treat others with respect and dignity and not to harass any one.
7. Not to disclose hospitals' confidential matter to anybody.

9. **What is your job description? Have you received your JD?**

Answer:

- A Job description is a list that a person might use for general task or functions and responsibilities of a position. It may often include to whom position report, specification in job and salary range.
- It is received by the staff when he/she join the institute and when his/her job profile/department change.

10. **How employee grievances are addressed?**

Answer:

1. Employee can directly raise complaint to their immediate HOD
2. Employee can also use Complaint Box
3. Employee can directly raise their complaint into Grievance Redressal Committee by contacting coordinator of the committee.
4. Employee can raise their complaint in feedback form

11. **How does your competency level is checked?**

Answer:

- Annually through Performance appraisal.
- Assistant Matrons also assess the nursing staff competency as per pre-defined competency matrix form on yearly basis.

12. **Enlist international patient safety goals:**

Answer:

IPSG 1: Identify Patients Correctly
IPSG 2: Improve Effective Communication
IPSG 3: Improve the Safety of High Alert Medications
IPSG 4: Eliminate Wrong site, Wrong patient, Wrong procedure surgery
IPSG 5: Reduce the Risk of Health Care Associated Infection

13. **How to identify a patient correctly?**

Answer:

We identify patients by 2 identifiers:

1. Patient Name
2. Unique ID No.

14. **What are the different color codes used for identification bands and what do they signify?**

Answer:

There are several color codes used for ID bands:

- **White:** Adult inpatients.
- **Pink:** Pediatric inpatients.
- **Fluorescent Green:** Outpatients (OPD).
- **Maroon:** Patients with allergies (worn in addition to the standard band).
- **Purple:** Indoor vulnerable patients (worn in addition to the standard band, excluding neonates and children under 12). Additional color codes are used in the Emergency Department for triage based on the Emergency Severity Index (ESI) and for Mass Casualty situations, indicating priority levels and categories.

15. <u>When to identify a patient?</u>

Answer:

1. Before administering medications, blood, or blood products
2. Before taking blood and other specimens for clinical testing
3. Before providing treatments and procedures
4. Before performing any activity on the patient

CHAPTER-2 Nursing Care of Patient (NCP)

16. <u>What is ESI Triage?</u>

Category		Description
Priority 1	**Resuscitation**	Patient requires immediate lifesaving intervention
Priority 2	**Emergent**	Patient is in a high risk situation. Example:- Disoriented, in severe pain, vitals are in danger zone, etc.
Priority 3	**Urgent**	If multiple resources (02 or more) are required to stabilize the patient, but vitals are not in the danger zone.
Priority 4	**Less Urgent**	If one recourse is required to stabilize the patient
Priority 5	**Non Urgent**	If patient does not require any resources to be stabilized

- **How are patients categorized during daily operations triage?**

Answer:

During daily operations, adult patients are triaged using the Emergency Severity Index (ESI), and pediatric patients are triaged using the Pediatric Emergency Severity Index (p-ESI). Both systems use a five-level scale with corresponding color-coded identification bands: **Level 1 (Red)** for immediate, life-saving intervention needed (Resuscitation), **Level 2 (Orange)** for high-risk, time-sensitive conditions (Emergent), **Level 3 (Yellow)** for stable conditions requiring multiple resources (Urgent), **Level 4 (Green)** for stable conditions requiring one resource (Less Urgent), and **Level 5 (Blue)** for stable conditions requiring no immediate resources (Non-Urgent).

- **What are the primary triage tools used during a mass casualty event?**

Answer:

During a mass casualty event, the primary triage tool for adult patients (aged 8 years and older) is the Simple Triage and Rapid Treatment (S.T.A.R.T.) tool. For pediatric patients (under 8 years old), the Pediatric version of Simple Triage and Rapid Treatment (JumpSTART) is used. Both START and JumpSTART categorize patients into four priority levels: Red (First Priority - Most Immediate), Yellow (Second Priority - Urgent), Green (Third Priority - Non-Urgent), and Black (Last Priority - Dead).

17. <u>What is the Patient Triage process during disaster?</u>

Colour Code for Triage		
RED	First Priority	Most Immediate
YELLOW	Second Priority	Urgent
GREEN	Third Priority	Non Urgent
BLACK	Last Priority	Dead

- **What is the purpose of the Temporary Holding Area?**

Answer:

The Temporary Holding Area is located near the Emergency Department and has 10 beds. Its purpose is to accommodate patients who are awaiting admission, investigation results, are under clinical observation, or as advised by a doctor. The duration of stay in this area is generally limited to 24 hours, but can be extended by a doctor based on clinical evaluation. Decisions regarding admission, discharge, or transfer from the Temporary Holding Area are made by the treating doctor after evaluating the patient's response to treatment and investigations.

18. Admission criteria in ICCU:- (For Adult patients)

Preadmission screening: - The ICU admission decision based on several models utilizing

- Prioritization model
- Diagnosis model
- Objective parameters model

Prioritization model: -

Priority	**Sign & Symptoms**
Priority-1	• These are critically ill, unstable patients in need of intensive treatment and monitoring that cannot be provided outside of the ICU. • Usually, these treatments include ventilator support, continuous vasoactive drug infusions, requirement of urgent pericardial tapping, Arrhythmias requiring temporary pacemaker insertion etc.
Priority-2	• These patients require intensive cardiac care monitoring and may potentially need immediate intervene. No their limits are generally stipulated for these patients.
Priority-3	• These patients are relatively low risk stable cardiac patient who may require monitoring.

Diagnosis model:-

System	Diagnosis
Cardiac system	• Acute myocardial infarction with complications • LV Dysfunction • Unstable Valvular Heart Diseases • Cardiogenic shock • Arrhythmias requiring close monitoring and intervention • Acute congestive heart failure with respiratory failure and/or requiring hemodynamic support • Unstable angina, particularly with dysrhythmias, hemodynamic instability, or persistent chest pain • Cardiac arrest • Cardiac tamponed or constriction with hemodynamic instability • Dissecting aortic instability • Complete heart block
Pulmonary System	• Acute respiratory failure requiring ventilator support • Pulmonary embolism with hemodynamic instability
Endocrine	• Hypo or hyperkalemia with Arrhythmias • Hyper of Hypoglycemia • Hyper or hypomagnesaemia with hemodynamic compromise or Arrhythmias
CNS	• CV Stroke • Coma
Cardio Vascular Thoracic Surgery	• Post-operative patients requiring hemodynamic monitoring / ventilator support or extensive nursing care • Stuck Valve • Post MI VSR
Miscellaneous	• Septic shock with hemodynamic instability • Hemodynamic monitoring • Clinical conditions requiring ICU level nursing care

Objective parameters model:-

Vital signs/parameters	**Findings**
Electrocardiogram	• Myocardial infarction with or without complex arrhythmias • Sustained ventricular tachycardia or ventricular fibrillation • Complete heart block with hemodynamic instability • Sinus Arrhythmia (Tachycardia / bradycardia)
Echocardiography	• Valve Thrombosis • Cardiac Temponade • Pericardial Effusion
Vital Signs	• Pulse < 40 or > 150 beats/minute • Systolic arterial pressure < 80 mm Hg or 20 mm Hg below the patient's usual pressure
Laboratory Values	• Altered Enzymes: Troponin I, CPK – MB, D-Dimer, LDH • Serum potassium < 2.0 mEq/L or > 7.0 mEq/L (Hypo or Hyperkalemia or sever electrolyte disturbance) • Abnormally low Hemoglobin
Radiography/ Ultrasonography/ Tomography	• Dissecting aortic aneurysm • Pulmonary embolism
Physical Findings (acute onset)	• Anuria • Airway obstruction • Continuous seizures • Cyanosis • Cardiac Tamponed

19. Admission criteria in ICCU:- (For pediatric patients)

Prioritization model	• Cyanotic Spell • Breathlessness • Obstructive Airways • Requirement of Ventilator Support • Decompensated Cardiac Failure • Requirement of Inotropes • Drug dependent CHD • Cardiac Arrhythmias • Septicemia

	• Respiratory Failure • Patient require intensive monitoring
Diagnosis model	• Unstable Cyanotic Congenital Heart Disease • Unstable Acyanotic Congenital Heart Disease • Unstable Rheumatic Heart Diseases • Post-operative patient requiring monitoring / ventilator support • Cardiogenic Shock • Cardiac Temponade • Infective Endocarditis

Objective parameters model	• Pulse :
	  • Neonates <60/min or > 200/min
	  • Infants < 70/min or > 180/min
	  • Older Children < 40/min or > 150/min
	• Blood pressure < 70 mmHg > 150 mmHg
	• Respiratory rate:-
	  • Neonate > 80 breaths /min
	  • Infant > 60 breaths /min
	  • Older Children > 40 breaths /min
	• SPO_2 < 70 %
	• CRT > 3 seconds
	• Cardiac Arrhythmia
	• Serum sodium < 120 Eq / lit < 160 Eq /lit
	• Serum potassium < 2.0 Eq/lit or > 6.0 Eq /lit
	• Any acute acid base disturbance
	• Serum calcium > 12 mg/dl/ < 7 mg/dl
	• Acute onset – Anuria with renal failure
	• Continuous seizures / New onset seizure

20. DISCHARGE/SHIFT/ TRANSFER CRITERIA FOR ICCU:-

The status of patients admitted to an ICU should be revised continuously to identify patients who may no longer need ICU care.

Discharge/Shift/ Transfer criteria from ICCU for adult patients include (but not limited to):-

- Written discharge/transfer order by attending doctor

- Substantial resolution of the problems responsible for admission
- Elimination of need for mechanical ventilation/airway protection
- Stable hemodynamic parameters
- Stable respiratory status (patient extubated with stable arterial blood gases) and airway patency
- Oxygen requirements not more than 60%
- Intravenous inotropic/ vasopressor support and vasodilators are no longer necessary
- Patients on low dose inotropic support may be discharged earlier if ICU bed is required.
- Cardiac dysrhythmias are controlled
- Neurologic stability with control of seizures
- Patients with tracheostomies who no longer require frequent suctioning
- Anticipation of prolonged medical stability

21. <u>Discharge/Shift/Transfer criteria from ICCU for pediatric patients include:-</u>

Parameter	**Recovery Norms**
Hemodynamic parameters	• Pulse rate – normal or controlled • B. P. – normal or controlled
Respiratory Parameter	• Rate - normal or controlled • Patient extubated with stable ABG analysis • Airway patency – good
Cardiac Parameter	• Arrhythmias are controlled • ECG - normal
Neurological Parameter	• Stable GCS scale • Controlled seizure
Others	• Patient with tracheostomy – is no longer requiring • Patient is no longer requiring intensive monitoring

22. What is Early Warning Sign? How it is applicable to the patient?

- **Early Warning Sign: -** It identify a change or deterioration in clinical condition for initiating prompt intervention.

  The early warning signs will be applicable in **non-critical areas** and will vary based on the patient's age:

  - **Inpatient:** Early Warning Signs for patients aged 18 years and above.

- **Inpatient:** Early Warning Signs for Pediatric Patients.
- **Outpatient Department:** Early Warning Signs depicted in pictorial form.

- **The Early Warning Score will determine the frequency of observations for patients aged >18 years:**
  - **Score 0 to 2: -** Do 6 hourly observations
  - **Score 3: -** Do 2 hourly observation
  - **Score ≥ 4: -** Activate Rapid Response Team

23. Early Warning Signs for Pediatric Patients: -

SYSTEM	PARAMETER	AGE 0 to 4 MONTHS	AGE > 4 to 12 MONTHS	AGE > 1 to 4 YEARS	AGE > 4 to 12 YEARS	AGE > 12 to 18 YEARS
Respiratory	RR	>60 /min <30 /min	>55 /min <25 /min	>40 /min <25 /min	>30 /min <10 /min	>25 /min <10 /min
	SPO2	< 90% < 70%	< 90% < 70%	< 90% < 70%	< 90% < 70%	< 90% < 70%
	Distress	Moderate	Moderate	Moderate	Moderate	Moderate
	Oxygen Requirement	>3LIT/MIN	>3LIT/MIN	>3LIT/MIN	>3LIT/MIN	>3LIT/MIN
Cardiovascular	HR	>165 /min <105 / min	>160 /min <105 / min	>140 /min <85 / min	>115 /min <60 / min	>105 /min <50 / min
	SBP	<60 mm/Hg	<70 mm/Hg	<75 mm/Hg	<80 mm/Hg	<90 mm/Hg
	CRT	>3sec	>3sec	>3sec	>3sec	>3sec
	Skin Color	Pale Cyanotic Mottling				
Behaviour		-Lethargic -Reduced Response to pain -Inconsolable cry				

24. <u>Who are the members of Rapid Response Team (RRT)?</u>

Answer:

The Rapid Response Team consists of:

- On duty DM or M.Ch resident / Senior resident /Medical Officer of concerned unit
- ICU DM Resident
- Physician assistant
- On duty nursing staff (Critical Care)
- Departmental sister Incharge
- Departmental MCCs

NOTE: Critical care Physician or Intensivist are asked to respond whenever required. If patient is very sick, he/she will be shifted to ICCU immediately.

25. <u>Timeline for completion of Initial Assessment by Doctor / Nurse?</u>

Answer:

Sr. No.	Assessment	Person authorized and responsible for assessment	Time lines for initiation of assessment
1	Admission History and Physical Initial Assessment (including plan of care with Desired Outcome)	On duty doctor	Within 1 hours of admission
2	Nursing Assessment	Nursing Staff	Within 1 hour of admission
3	Nutritional screening	Nursing Staff/ Dietician	Within 3 hour of admission
4	Verification of initial assessment by Consultant	Treating consultant	Within 24 hours of admission
5	Complete assessment in case of emergency	On duty doctor	Within 15 minutes

26. <u>Timeframe for Re-assessment?</u>

Answer:

S.N	Department	Vitals & Intake/Output Monitoring	Nursing Re-assessment
1	Emergency Department	1 hourly	Every 6 hourly
2	Cardio-thoracic recovery Room (Adult / Paediatric)	1 hourly	Every 6 hourly
3	Medical ICUs	1 hourly	Every 6 hourly
4	Surgical ICUs (Adult / Paediatric)	1 hourly	Every 6 hourly
5	Paediatric ICU	1 hourly	Every 6 hourly
6	Post Cath ICU	Every 2 hourly	Every 6 hourly
7	Medical / Surgical / Paediatric Wards	Every 6 hourly or as per early warning score	Every 6 hourly
8	Casualty: - Depending on patient's condition, it varies from 5 min to at least 1 hour		

- **Monitoring of Restraint Patients:** Adult patients shall be monitored at every 2 hourly and children shall be monitored at every one hourly.

- **Pain Reassessment:** Reassessment of the pain is done daily by the doctor/nursing staff at every 6 hourly and document it in the pain management chart. When the patient complaints the pain, reassessment of pain should be done within two hour or as per doctor's instruction until the intensity of pain rating is 0 or at an acceptable level according to the patient.
  For unconscious patients, patient should be reassessed for pain at every 2 hourly using Behavioural Pain Scale (BPS).

27. <u>What are the criteria for re-assessment?</u>

Answer:

- To determine response to treatment/procedures
- When there is significant change in condition
- When there is change in diagnosis
- When there is change in the level of care
- Minimally at every shift
- Documentation of the reassessment shall be located in 24 Hours Patient Progress note & I.O (Input & Output) & Vitals monitoring chart.
- Reassessments done by doctor as well as nurse.
- Additionally, information for reassessment shall be gathered from patients, families, other healthcare professionals and consultant's input.

28. <u>Which procedures needs to be counter check and signed by senior personnel?</u>

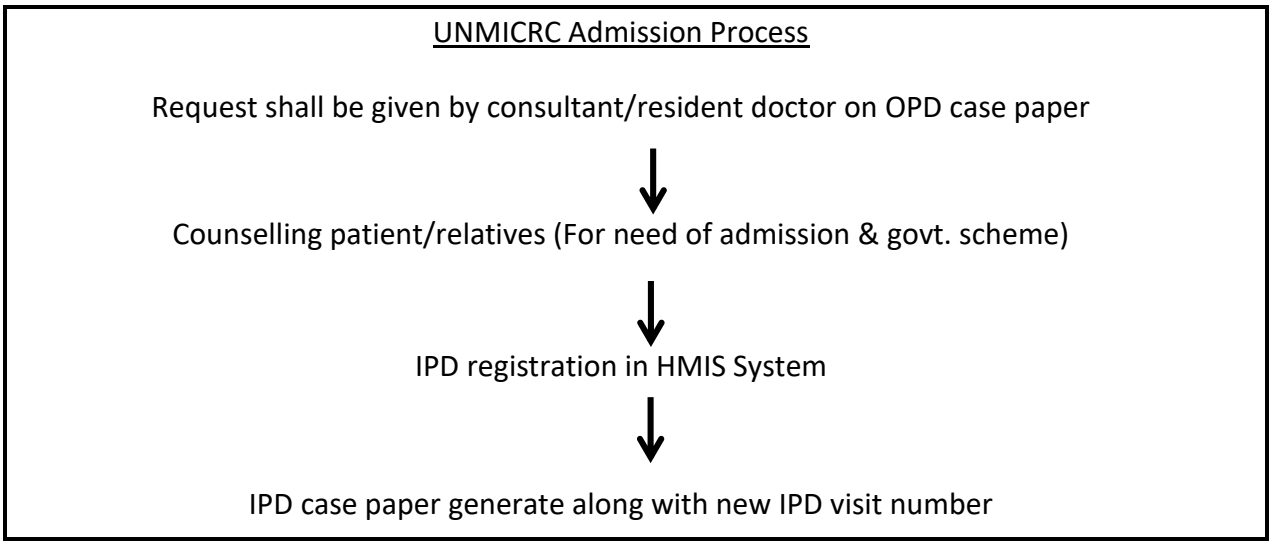
Answer:

- Daily nursing care record (Nursing reassessment, Nursing care plan, Vital chart
- and I/O chart, Nursing handover)
- Transfer in/Transfer out of patients
- Before administration of high risk medications & narcotic medications
- Extravasation Form.
- Patient valuable form
- MRD checklist
- Medication error reporting form
- Clinical incident reporting form
- Indent of expensive medicines/items/chemo drugs.

29. <u>What is the admission procedure?</u>

Answer:

Whenever patient needs to be admitted following steps are followed

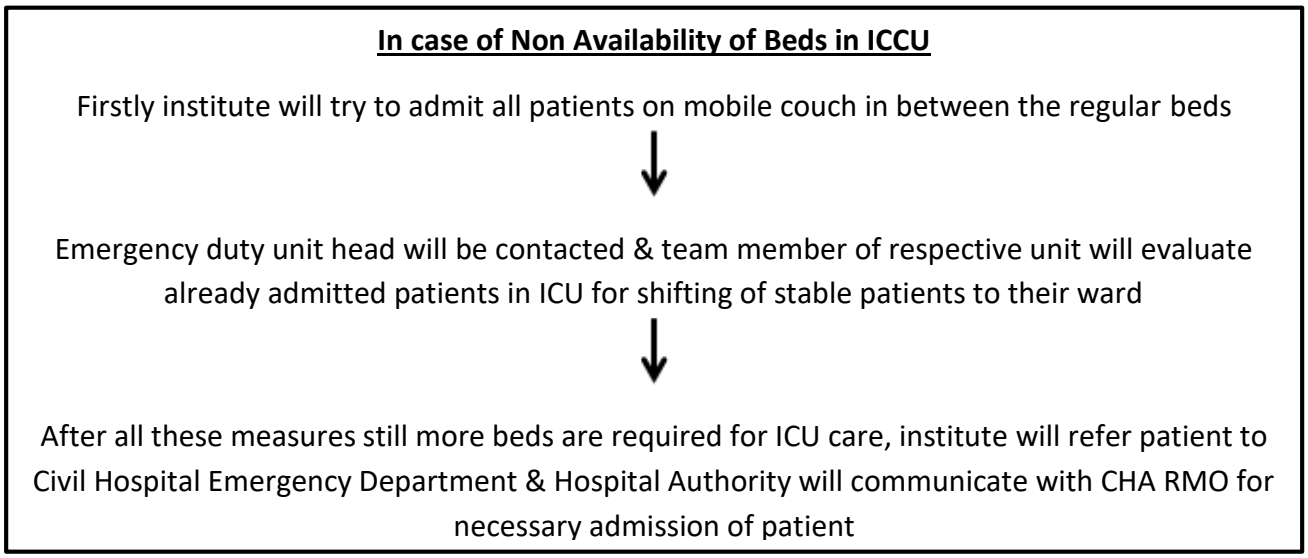


30. What is the procedure in case of non-availability of bed?

Answer:

In case of non-availability of beds:

- On duty MCC & Asst. Matron shall be contacted. With the help of on duty doctor, they shall manage the situation and if required, I/C CMO shall be contacted.
- Coordinators of different departments coordinate and try to create vacancy by transferring the patient to other department. If not possible to create vacancy.
- Doctor will reassess the case and if postponement of admission doesn't carry major risk, patient may be given another date.
- In case of Mass casualty, when there is non-availability of beds, Patients be shifted to civil hospital as we have MOU with Civil Hospital for that.



In case of Non Availability of Beds in General Wards

Patient will be temporarily admitted to other department's general ward where beds are available

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If general beds are not available in entire hospital then patient will be given date & time of admission for further treatment considering stable patient as they require general ward admission.

31. How patients are assigned to nurse?

Answer:

Patients are assigned to nursing staff Acuity based (as per the nurse competency level & designation) during each and every shift.

32. Which are the documentation to be done prior to transfer?

Answer:

- Transfer summary of patient stating medical necessity.
- Nursing documentation.
- Time at which the patient left the patient care unit.
- Vital data before leaving.
- Proper advice given by consultant
- If the patient is transferred outside the hospital; Patient and/or family consent copy of agreeing to transfer, Time of patient reach the destination hospital/Diagnostic center

33. In which conditions nurses can take independent decision regarding discharge and transfer?

Answer:

Nurses are empowered to withhold discharge and transfer of patients based on the below mentioned criteria:

- **Change in breathing**: Noisy breathing, short of breath, unable to speak full sentences, use of accessory muscles, etc.
- **Change in circulation:** Color changes, cold & clammy skin, impaired perfusion, edema, etc.
- **Rigors:** Rigors

- **Hematoma at local site**
- **Change in mental status**: Lethargic, confused, etc.
- **Agitation**: Restless, anxious, etc.
- **Pain**: New pain, increasing pain, etc.
- **No progress:** No progress, abdominal distension, nausea, bleeding, dizzy/fall, etc.
- **Patient indicates:** Not feeling well, feeling of impending trouble, etc.
- **Subjective nurse observation**: Change in behavior, patient doesn't look good, etc.
- **Transfer from OT:**
    - Bleeding
    - Persistent Hypotension
- **Transfer from Cath:**
    - ST elevation in ECG
    - Persistent chest pain
    - Hypotension

Nursing staffs are empowered as per their expertise and skill are as follow:-

- **All nurses can do all nursing procedures like,**
    - Bed making
    - Care of Pressure Area/Personal Hygiene
    - Sample Collection
    - Drug Administration(Oral, I/V, I/M, S/C)
    - Ryle's Tube Feeding
    - Urinary Catheterization
    - I.V cannula
    - Enema
    - Dressing
    - Oxygen Administration
    - Nebulization
    - Taking ECG
    - Removal of catheters
    - Pre-operative and pre-procedure preparation
    - Tracheostomy care
    - Oro-Naso Suction
    - Ventilator Patient Care
    - Multi Para Monitor Operation
    - Syringe Pump Operation
    - Central Line Care

- End of Life Care/Last Office Care
- Nursing management for hypoglycemia/hyperglycemia
- Nursing management for hypothermia/hyperthermia
- Tet Spell Management

- All the Nursing Staffs are empowered to report medication errors.
- All the Nursing staffs are empowered to report safety regarding incidents.
- On each floor (Non Critical area) , nursing staffs are trained & empowered for managing patients care in case of urgency required till Code Blue Team or treating consultant will come. They can give proper position, start O2, and take ECG. Do RBS, make patient's relative calm & not to be panic, perform CPR & activate codes as per requirements.
- Nursing staffs are the members of Code Blue and Code Yellow team.
- All the assistant matrons are empowered to become a member in various committees.

34. <u>What are the precautions to be taken at the time of blood transfusion/IV therapy?</u>

Answer:

Blood and blood products shall be used rationally and only based on the advice of the treating consultant.

- **Informed consent** of patient/patient's relative shall be obtained whenever demand of blood or blood products is prescribed.
- Blood must be available as per given time frame:
- In case of Emergency, Blood and blood products shall be available within 1 hour.
- In case of planned transfusion, Blood and blood products shall be available within 24 hours or as recommended by doctor.
- Staff shall be trained for blood transfusion & family education for blood donation.

All transfusion reactions (minor and major) shall be reported to the blood bank in written and record shall be maintained for the same in the patient's medical record. The Quality Assurance Committee shall review and analyze blood transfusion reactions for preventive and corrective actions and record them accordingly for implementation.

35. <u>Time duration for transfusion of various Blood component?</u>

Blood Components	Time Duration
FFP	20 to 30 mins
Platelets	20 to 30 mins
Cryo	20 to 30 mins

Whole blood	3 to 4 hours

36. <u>The patient must be observed and assessed after transfusion of blood and blood products for the following:</u>

Answer:

- Vital sign
- Signs of circulatory overload
- Urinary output
- Needle site for signs of infiltration, hematoma & dislodgement of needle, etc.
- Any possible transfusion reaction / complication including fever, chills, back pain, dyspnea, hypotension, haemoglobinuria etc.

37. <u>What is the procedure for transfusion in emergency?</u>

Answer**:**

No.	Procedure Steps	Responsibility
1	Identification of purpose of blood transfusion	Consultant/ Resident Doctor
2	Order for blood transfusion specifying the following: ➢ Type of component ➢ No. of units to be administered ➢ Warming of blood / blood components ➢ Premedication, if any ➢ Rate of transfusion especially in case of paediatric patients ➢ Special procedures such as filters, irradiation	Consultant/ Resident Doctor/Medical Officer
3	Filling up of Blood Transfusion Requisition Form and sending it to Blood centre.	Resident Doctor/Medical Officer
4	Identification of patient and collection of blood sample. Labelling of blood sample and sending it to blood centre for cross matching.	Nursing Staff
5	Receipt of blood or blood components and check for Patient's name, Indoor no., Type of blood component, blood group, expiry date of the blood unit and volume of blood component.	Resident Doctor/Medical Officer
6	Blood unit is allowed to stand at room temperature for 30 – 45 minutes before its administration.	Nursing Staff
7	Preparation of all bedside articles &patient for blood transfusion.	Nursing Staff
8	Explaining the patient & relatives about the procedure& taking Informed Consent before the transfusion of Blood and blood components.	Nursing Staff
9	Check IV Cannula for blockage or any complication	Nursing Staff
10	Check vital signs	Nursing Staff
11	Check site of Blood Transfusion	Nursing Staff

12	Use of 18 or 20 gauge Intravenous catheter and standard blood transfusion set for transfusion is recommended	Nursing Staff
13	Medical Officer & Nursing Staff has to verify the patient's name, IP No. on the sticker (attached on the blood bag) &cross match report received from the blood centre in the patient's presence, at the bedside, prior to transfusion.	Resident Doctor/ Medical Officer & Nursing Staff
14	The patient must be closely observed and assessed for: • Vital sign • Rate of flow • Signs of circulatory overload • Urinary output • Needle site for signs of infiltration, haematoma & dislodgement of needle, etc. • Any possible transfusion reaction / complication including fever, chills, back pain, dyspnoea, hypotension, haemoglobinuria • Patency of infusion set • Keep the patient warm & comfortable with a blanket	Resident Doctor/ Medical Officer & Nursing Staff
15	On completion of Blood transfusion, Treating Consultant to be informed for further treatment	Resident Doctor/ Medical Officer & Nursing Staff
16	Following information needs to be recorded in Nursing sheet: • Start Time and completion Time of Blood Transfusion. • Volume of blood administered • Blood unit No., Blood Group & Type of blood administered • Rate of flow • Any reactions observed • Any medications administered	Nursing Staff
17	**Disposal of Blood units:** • **Unused Blood units, whole blood/ PCV (within 30 minutes of issue by Blood centre) are returned to the Blood centre provided cold chain is maintained.** • **Unused Blood units crossing 30 minutes (after issue by Blood centre) shall be discarded in yellow bag as per Bio medical waste management guideline.** • **Partially used Blood units shall be discarded in yellow bag as per Bio medical waste management guideline.** • **Used Blood units shall be discarded in yellow bag as per Bio Medical Waste Management Guidelines.**	Nursing Staff

38. What are the steps to be followed in case of Blood transfusion reaction?

Answer:

In the event of a suspected transfusion reaction, follow the following steps:

1. STOP the transfusion immediately

2. INFORM the House Officer immediately
3. RECHECK all blood labels and patient identification
4. DRAW post transfusion blood sample in a separate tube - plain & EDTA both
5. RECORD the reactions in nursing sheet with time
6. INFORM the Nursing Quality Manager immediately and fill the blood transfusion reaction form and Incident Reporting Form
7. SUBMIT all documents with blood specimen, blood bag & transfusion set to Blood Bank for further investigation of transfusion reaction.

39. <u>What are the safety measures to be taken during blood transfusion?</u>

Answer:

Safety measures for Blood Transfusion

1. Follow strict aseptic technique throughout the procedure
2. Appropriate filter has to be used for transfusion
3. Care is to be taken to prevent introduction of air in the apparatus.
4. No Medications shall be administered simultaneously with blood or blood components via the same IV line.
5. If any IV fluids are to be given immediately before, during or after transfusion, always use physiologic Saline to prevent hemolysis of the blood in the tubing.
6. Blood/Blood products are to be transferred as early as possible once they are issued from blood bank.
7. If blood bag is found broken or leakage is found, blood bag has to be discarded as per biomedical Waste Management guidelines.

40. <u>Turn Around Time of Nursing Service</u>

Sr. No.	Services	Assignment	TAT
1	**Nursing Assessment**	Ward	Within 1 hour
		ICCU	Within 15 mins
2	**Shift to OT/Cath**	Pre-Op Patient	Within 30 mins
3	**Blood transfusion after receiving from blood center**	Check, Warm	After receiving 30 to 45 min it should be started and within 3 to 4 hour it should be completed
4	**Any procedure to be perform**	Removal TLC, U Cath, EJV,ICD, PD Cath, etc.	Within 20 mins
5	**Preparation for any procedure**	TLC, U Cath, Tracheostomy, Tapping, Arterial line, ICD, PD cath,	Within 05 mins

		Femoral Sheath etc.	

41. Standardized timeframe of Medication Administration: -

Medication Administration for Critical Area					
Sr. No	**Services**	**Frequency**	**Timing of Medicine Administration**	**Medicine should be administered within**	**TAT**
1	**Medication Administration**	OD	10:00 AM	9:50 AM to 10:10 AM	10 minutes before or after scheduled dosing time (Window Period 20 Mins)
		BD	10:00 AM & 10:00 PM	9:50 AM to 10:10 AM, 9:50 PM to 10:10 PM	
		TDS	6:00 AM, 2:00 PM, & 10:00 PM	5:50 AM to 6:10 AM, 1:50 PM to 2:10 PM, 9:50 PM to 10:10 PM	
		QDS	6:00 AM, 12:00 PM, 6:00 PM, 12:00 AM	5:50 AM to 6:10 AM, 11:50 AM to 12:10 PM, 5:50 PM to 6:10 PM, 11:50 PM to 12:10 AM	
		HS	10:00 PM	9:50 PM to 10:10 PM	
Medication Administration for Non- Critical Area					
Sr. No.	**Services**	**Frequency**	**Timing of Medicine Administration**	**Medicine should be administered within**	**TAT**
2	**Medication Administration**	OD	10:00 AM	9:30 AM to 10:30 AM	30 minutes before or after scheduled dosing time (Window Period 60 Mins)
		BDS	10:00 AM & 10:00 PM	9:30 AM to 10:30 AM, 9:30 PM to 10:30 PM	
		TDS	6:00 AM, 2:00 PM, & 10:00 PM	5:30 AM to 6:30 AM, 1:30 PM to 2:30 PM, 9:30 PM to 10:30 PM	
		QDS	6:00 AM, 12:00 PM, 6:00 PM, 12:00 AM	5:30 AM to 6:30 AM, 11:30 AM to 12:30 PM, 5:30 PM to 6:30 PM, 11:30 PM to 12:30 AM	

		HS	10:00 PM	9:30 PM to 10:30 PM	
High Risk Medication Administration					
Sr. No.	**Services**	**Frequency**	**Timing of Medicine Administration**	**Medicine should be administered within**	**TAT**
3	**High Risk Medication Administration**	OD	10:00 AM	9:55 AM to 10:05 AM	05 minutes before or after scheduled dosing time (Window Period 10 Mins)
		ODPC	2:00 PM	1:55 PM to 2:05 PM	
		BDS	10:00 AM & 10:00 PM	9:55 AM to 10:05 AM, 9:55 PM to 10:05 PM	
		TDS	6:00 AM, 2:00 PM, & 10:00 PM	5:55 AM to 6:05 AM, 1:55 PM to 2:05 PM, 9:55 PM to 10:05 PM	
		QDS	6:00 AM, 12:00 PM, 6:00 PM, 12:00 AM	5:55 AM to 6:05 AM, 11:55 AM to 12:05 PM, 5:55 PM to 6:05 PM, 11:55 PM to 12:05 AM	
		HS	10:00 PM	9:55 PM to 10:05 PM	
STAT Medication Administration					
1	**Medication Administration**	**STAT**	-	-	Immediately or Within 05 minutes from the time of the order

42. What are the Criteria for determining patient as Vulnerable?

Answer:

Following patients will be considered as vulnerable and need to undergo a risk assessment:-

- All patients aged 60 years (senior citizens) and infants and children (below the age of 12)
- Differently-abled and / or mentally challenged
- Mentally ill
- Comatose
- Critically ill
- Patient under sedation and anesthesia
- Pregnant Woman
- Patients on Dialysis
- Victim of Abuse or neglect

- Semiconscious/Unconscious
- Impaired communication or language barriers
- Immuno compromised patient
- Patient with suicidal tendencies

43. <u>What special care is given to a vulnerable patient?</u>

Answer:

1. Bed should be locked
2. Side rails should be up all the time
3. Floors should be dry (non-slippery)
4. Assist the patient for toileting/ ambulatory needs
5. Purple Identification band to be put for PAIN identification
6. Frequent reassessment to be done
7. Hourly rounds done
8. Raise an incident form if any untoward incident happening

44. <u>How is informed consent handled for vulnerable patients?</u>

In cases involving vulnerable patients, informed consent is obtained from the appropriate legal representative, referred to as the Surrogate Decision Maker. The policy outlines a priority order for identifying the Surrogate Decision Maker, starting with the spouse, followed by adult children, parents, adult brothers or sisters, adult grandchildren, and finally a significant other (close friend) in emergency situations.

45. <u>How are vulnerable patients identified upon arrival at the hospital?</u>

- All patients are screened for vulnerability upon admission, whether they are inpatients or outpatients. For inpatients identified as vulnerable, a purple ID band is applied immediately, with the exception of patients below 12 years old and socioeconomically disadvantaged patients. For outpatients, a vulnerability stamp is applied to their case record file.

46. <u>Time out MUST verify:</u>

Answer:

1. Correct patient
2. Correct side and site (Marked)
3. Agreement to the procedure (Consent)
4. Correct patient position for procedure
5. Presence of implants and/or special equipment

6. Verification of site marking – if required
7. Presence of any reports or images required and displayed

47. <u>What procedure is followed at casualty when any patient comes for emergency services?</u>

Answer:

Emergency Care to be provided:

- 24 *7 for 365 days
- Irrespective patient's cast, creed, religion, paying capacity or behavior of patient.

<u>Steps in Emergency Care:-</u>

1. Initial Assessment as soon as possible and treatment as per requirement -On duty Resident Doctor
2. Guiding patient's relative to complete registration formality - On duty EMCS staff.
3. Informing Civil hospital in case of MLC - On duty Resident Doctor
4. Investigation to be done if required & patient to be shifted to concerned department once he/she gets stable.
5. Concerned department to be informed if Isolation is required.

Initial assessment done at Emergency Department needs to be documented with Time of Assessment and signature of treating doctor.

48. <u>What is the registration process for MLC cases?</u>

Answer:

- **In case of MLC**, entry shall be made in MLC register and shall be signed by consulting doctor, I/c CMO/RMO of the hospital and CMO/RMO of the civil hospital.
- Inform to Police.

49. <u>What should we do in case of death on arrival?</u>

Answer:

- Registration of patient shall be done and entire event shall be recorded in case paper of patient including the CPR event.
- Patient's relatives shall be informed by the on duty doctor and if cause of death not known, entry shall be done in MLC registration and informed the police and dead body is sent to civil hospital for post mortem.
- If cause of death is known, death certificate is issued and body is handed over to patient's relatives.
- Vulnerability assessment is done by nurses at the time of admission and is documented in nursing assessment form.

50. <u>How many emergency Codes are defined?</u>

Answer:

CODE BLUE	CARDIAC ARREST -444
CODE RED	FIRE -555
CODE YELLOW	DISASTER-555
CODE PINK	CHILD ABDUCTION-555
CODE BLACK	BOMB THREAT-555
CODE PURPLE	INTERNAL VIOLENCE-555

51. Mention steps of CPR.

Answer:

Steps for Cardio Pulmonary Resuscitation:

C- Cardiac compression

A – Airway

B – Breathing

D – Defibrillation

52. What is the difference between CPR in adult and paediatric patients?

Adult	Paediatric	Infants
Compression: use both hands	Use one or two hands, depending on the size of the child.	two fingers/thumb at the center of the baby's chest
Depth: At least 2 inches (5 cm) no more than 2.4 in ches	At least 1/3 AP diameter About 2 inches (5 cm)	At least 1/3 AP diameter About 1.5 inches (4 cm)
Ratio: 30:2 Single rescuer or 2 rescuer	(30:2) for single rescuer. 15:2 for two rescuer.	(30:2) for single rescuer. 15:2 for two rescuer.
Rate: 100-120/minute.	100-120/minute.	100-120/minute.

53. What are the complications of Peripheral IV's?

Answer:

- **Local Complications**:
  Infiltration, Phlebitis, Extravasation, Hematoma
- **Systemic:**
  Thrombophlebitis, Blood Stream Infection, Air Embolus

54. What is Central Venous Access Device (CVAD) and types of CVAD?

Answer:

An intravascular access device that terminates in one of the great vessels.

Types

1. Non- tunneled
2. Tunneled

3. Implanted

55. <u>What are the complications related to CVAD's?</u>

Answer:

- Phlebitis
- Infiltration/Extravasation
- Catheter Occlusion
- Venous Thrombosis
- Infection
- Air Embolism
- Malposition
- Fracture

56. <u>Describe main 2 types of pain.</u>

Answer:

Pain can be divided in to two main types:

- Acute Pain: Any pain of less than 6 weeks duration.
- Chronic Pain: Any pain of more than 6 weeks duration

57. <u>To assess the intensity of pain, following scales are being used :</u>

Answer:

1. Wong Baker pain scale - Adults & children > 7 years
2. FLACC scale (Face, Legs, Activity, Cry, Consolability) – Children (3 month to 7 Year)
3. NIPS scale (Neonatal & Infant Pain Scale) - infants < 3 months
4. BPS Scale (Behavioral Pain Scale) – Unconscious patient

58. <u>What are the criteria to use Patient Controlled Analgesia (PCA)?</u>

Answer:

The following are criteria for PCA use:

- Presence of post-operative pain, or intractable pain refractory to less invasive modalities
- Ability of patient to understand and comply with relevant instructions
- Ability of patient to physically operate PCA apparatus
- Free from allergy to proposed analgesic agents

59. <u>What are the non-Pharmacological methods (intervention) for pain management?</u>

Answer:

- Physical agents – Heat, cold, massage, exercise, immobilization, Trans electrical Nerve Stimulation
- Psychological approaches – Relaxation, biofeedback, distraction, education, psychotherapy
- Invasive Intervention
- Destructive procedures

- Surgical – Epidural pumps/ Catheter

60. <u>What is restrain?</u>

Answer:

RESTRAINT is the involuntary use of a physical or mechanical device to limit or prevent movement of the whole or a portion of the patient's body as a means of controlling the patient's physical activities.

61. <u>Types of restraint:</u>

Answer:

- **Mechanical/physical Restraint –** Any device applied to a patient for the purpose of limiting free movement.
- **Chemical Restraint –** A drug used to inhibit a particular behavior or movement.

62. <u>What are the indications for Restraint?</u>

Answer:

- When the patient is physically aggressive or combative
- The behavior involves a proximate risk of harm to the patient or others, or risk of significant destruction of property.
- When less restrictive alternatives have been attempted without success
- When the patient is non-cooperative to the treatment procedure
- To prevent fall
- Patient under withdrawal symptom(alcohol/drugs)
- In case of prisoner patients if instructed by police.

63. <u>What are the criteria for care and monitoring of patient with restrain?</u>

Answer:

Adult patients shall be monitored at every **two hourly** & children shall be monitored at **every one hourly**.

Following factors should be considered:-

- Position: Proper alignment of the restrained limb(s) is maintained.
- Circulation: The affected limb(s) has been checked and device application has been determined not to impair circulation
- Nail bed blanched in less than 3 seconds. Pulse is present above and below restraint.
- Skin Integrity: - Skin integrity has been checked under and around the device(s), and at all bony prominences and no pressure or reddened areas.
- Temperature:- The patient's skin is comfortable to touch. The patient's body temperature is checked as ordered by the Consultant, and the room temperature is maintained as appropriate to the patient's condition.

- Fluid Needs: - Fluids are administered as ordered by the Consultant. If the patient is not on fluid restriction, oral fluids are offered at least every two hours. If the patient is Nil-by-mouth (NBM), oral care is provided at least daily to maintain integrity of oral mucosa.
- Toileting Needs: - Elimination needs are attended to, either by Foleys catheter (only if ordered for other medical necessity) or by offering the bed pan to the patient or assistance to bathroom or bedside commode chair.
- Nutrition Offered:- Nutritional needs are met as ordered by the Consultant. If oral intake is allowed, the patient is offered and assisted with meals and snacks.
- Range of Motion:- Active or passive range of motion in the affected limb(s) is completed either by the patient or the caregiver (Nurse/Attendant). For patients, requiring limb restraints, Range Of Motion is recommended to be checked at least 2 hourly.
- Evaluation for Restraint Reduction or Removal:- Need for the use of restraint(s) is evaluated frequently (at least every two hours) and restraint(s) are discontinued at the earliest possible time.
- Privacy-: The patient is covered either by gown, sheet, or curtain and is protected from public view.
- Device Application:- The device is applied according to the manufacturer's guidelines and in a manner that is secure but not tight. Straps are secured to bed or chair frame, not to side rail or other moveable parts and quick release if possible.
- Primary Nurse initial and full name is recorded at the bottom of the column to indicate the caregiver completing the assessment of care. The full signature, title, and Employee ID shall be recorded at the bottom of the page.

64. <u>What is end of life care?</u>

Answer:

When patient is not dead but is on verge of death and about to die at that time we give end of life care which includes following things.

1. Respect the dignity of patient & Be sensitive and respectful to the patient's and family's wishes
2. Provide palliative care and guide for home health care.
3. Manage psychological, social, and spiritual/religious problems
4. Offer continuity of care and also respect the right to refuse treatment
5. Respect the Consultant's professional responsibility to discontinue some treatments when appropriate, with consideration of both patient and family preferences.

6. If Patient or relative wants to donate the organ after death, guide and assist for the same.

65. <u>Who is covered by the UNMICRC End-of-Life Care policy?</u>

- This policy applies to all patients, both adult and pediatric, who have life-limiting conditions. It also encompasses their families and all healthcare professionals and staff who are involved in providing end-of-life care at UNMICRC.

66. <u>How is the end-of-life phase identified and recognized for a patient?</u>

- Treating doctors are responsible for recognizing the signs that indicate a patient is transitioning to the end-of-life phase. These signs can include a decline in vital signs, reduced consciousness, lack of response to treatments, or significant deterioration in physical function. A cumulative decision regarding the proposed care is then made by the intensivist and other specialists involved in the patient's care.

67. <u>How are decisions made regarding a patient's care during the end-of-life phase?</u>

- Decision-making during the end-of-life phase involves compassionate communication of the prognosis and transition to EOLC to the patient (if possible) and their family. Doctors provide a realistic explanation of the prognosis, treatment goals, and limitations. Shared decision-making is emphasized, involving collaborative planning with patients and families to align care plans with the patient's values and goals. These plans are regularly reviewed and updated. All staff involved in care are informed of the plan, and any differences of opinion among the care team can be referred to the End-of-Life Care Committee for guidance.

68. <u>What kind of support is provided for symptom management and emotional/spiritual needs?</u>

- The EOLC policy ensures patients have access to necessary medications for managing common end-of-life symptoms like pain, breathlessness, and nausea through a multidisciplinary approach and standardized assessment tools. Emotional support is offered to both patients and families through counseling services, with referrals to psychologists as needed. Spiritual care and religious support are also arranged based on the patient's and family's preferences, respecting cultural and religious diversity.

69. .How does communication play a role in End-of-Life Care at UNMICRC?

Transparent and consistent communication is maintained with patients, families, and the healthcare team regarding the patient's condition and changes in the care plan. The ISBAR (Identification, Situation, Background, Assessment, and Recommendation) tool is used for communication among healthcare providers. Regular family counseling sessions are conducted to discuss the patient's status and adjust care plans accordingly.

70. What are the specific considerations for pediatric patients receiving end-of-life care?

- For pediatric patients, end-of-life care is provided in consultation with pediatric specialists, taking into account the emotional needs of both the child and their family. Family-centered support and grief counseling are particularly emphasized, and parents are fully involved in the decision-making process.

71. What happens after a patient's passing under the EOLC policy?

- After a patient passes, family members are informed sensitively and respectfully. Grief counseling is provided, and family members at high risk for complicated bereavement are identified. The deceased body is handled respectfully and in accordance with the family's cultural preferences, allowing family participation if desired. A timely and dignified transfer from the hospital is arranged, with assistance for necessary documentation and logistics. The policy also outlines detailed procedural steps for the physical preparation of the dead body by nursing and utility staff, ensuring respect and adherence to procedures.

72. What is fall?

Answer:

- A fall is defined as a sudden, uncontrolled, unintentional, downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions.

73. When should be patients assessed for their fall risk?

Answer:

- On admission to the hospital
- On any transfer from one unit to another within the facility
- Following any change of status
- Following a fall

- On a regular interval – daily

74. <u>What are the categories of MORSE fall risk assessment?</u>

Answer:

- High Risk = 45 and higher
- Moderate Risk = 25-44
- Low Risk = 0-24

75. <u>In which conditions patient is at risk of fall?</u>

Answer:

Combination of factors such as:

- Unstable gait or balance
- Urinary frequency
- Poly-pharmacy/high risk meds (benzodiazepines, etc).
- Impaired vision
- Poor mobility
- Environmental hazards (e.g. wet floor) account for only a small portion of patient falls

CHAPTER-3 MANGEMENT OF MEDICATION (MOM)

76. <u>Who is the Medication Safety Officer (MSO) of our organization?</u>

Answer:- Dr. Viraj Patel (Clinical Pharmacist)

77. <u>Storage of Medicines: -</u>

- High Risk Medication – Red color
- Narcotics- Blue color
- Look alike- Yellow color
- Sound alike – Green color
- High Concentrated Electrolytes- Pink color

78. <u>What is medication recall?</u>

Answer:

- In case if there is any defect in the quality of the medicines and surgical items. For e.g. Syringe leakage problem, suspended particle in I.V. fluids, suspended impurities noted on reconstitution etc. the nurse will immediately report to the duty pharmacist.

- Upon receipt of a complaint, Pharmacist checks the complaint about the medicines or surgical items.
- The recalled drugs/surgical items are collected and stored in an area labelled for recalled drugs until they are disposed of.
- A record of actions taken in written on the recall record, including the date of the action taken to dispose of the recalled medicine/surgical items.
- Immediately all the wards and departments are informed telephonically by the pharmacist to check their stocks and they are informed as to stop using the particular item.
- The sister-in-charge/Nurse is informed to return the defective medicines or surgical items to pharmacy for replacement and that will be replaced by new batch.
- The same is communicated immediately to the Drug supplying vendor.
- Pharmaco-therapeutic Committee members should be informed about the medication recall.

79. <u>Before administer the medications, what should be verified by nursing staff ?</u>

- Patient identity (Minimum two identifiers are used, i.e. patient name & patient ID number) before administration of drugs.
- Medication Order (Treatment Sheet)
- Appearance of medication (melting, clumping, etc.)
- Expiry date
- Any of the missing/incomplete parameter in medication order or Treatment sheet like Drug Name, Strength, Frequency, Duration, and Route.
- Applicable site of administration shall be verified.
- In case of high risk medication, the double verification is done by nurses and it must be documented.
- Care must be taken to avoid catheter and tubing mis-connections during medication administrations.
- Stay with the patient until all medication is taken by patient except for medications requiring continuous infusion.
- Discard the syringe & needle as per the BMW protocol.
- When appropriate I.V medications, fluid boluses, and blood products may be given manually or by gravity flow.
- In case of verbal ordering medication, staff should follow the procedure for the verbal orders.
- Medication administration documentation is done in a uniform location (treatment sheet).

80. <u>What measures should we take to avoid catheter and tubing mis-connections?</u>

- The organization ensures that inadvertent administration of a drug through a wrong route is avoided.
- IV extension tubes should not be used for epidurals, irrigation, drains, and central lines or to extend enteric feeding tubes.
- Care must be taken to position functionally dissimilar tubes used in patient care away from one another.
- Staff administering medications could trace all lines from their origin to the connection port to verify attachments before making any connections or reconnections, or administering medications, solutions, or other products.

81. Is institute allowed for self- administration of medication?

- It is the hospitals policy not to allow self-administration of medicine by the patients.
- In case of acute long standing diseases such as Diabetes where the patient is on self-administered medicine etc. this should be brought to the notice of the treating consultant and on his / her reassessment patient's treatment will be modified or carried out by the health care providers.
- If a patient is on long term drug therapy (oral) his / her continuing the drug in the hospital, will be decided by the concerned consultant.

82. What should be monitored in Patients after High Risk medication?

CATEGORY OF MEDICINE	MONITORING REQUIRED
SEDATIVE	• Changes in heartbeat • Agitation • Fever • Shivering • Severe muscle stiffness or twitching • Loss of coordination • Nausea, vomiting, or diarrhea • Weakness or dizziness • Seizures • Hives • Rash • Itching • Difficulty breathing or swallowing • drowsiness
ANESTHETIC	• Allergic reaction • Agitation • Irregular breathing patterns • Uncontrollable rapid eye movements • Unusual or involuntary muscle movements or muscle

	tremor • Seizures • Dysphagia • Pain, swelling or redness at the injection site • Blurred vision • Instability of blood pressure, respiration, and heart rat • Coughing • Dizziness • Drowsiness • Headache • Low blood pressure(children) • Nausea, Vomiting • Pain during injection
ANALGESIC	• Patient's live function, Blood pressure, Respiratory system • Headache • Muscle tightness • Heartburn or indigestion. • Signs of bleeding • Signs of thrombosis **Monitoring during Heparin Therapy** • Monitor APTT and platelets • Monitor for signs of bleeding and for subtle signs of bleeding, including shortness of breath, headache, decrease in blood pressure, weakness, and dizziness.
ANTI COAGULANT	• Hematuria • Hematoma • Hemoglobin decrease of > 2 grams per deciliter (g/dl) total hemoglobin of < 8 g/dL • Platelets less than 100000/mm3, a decrease of 50000/mm3 or a decrease of 50% of baseline. **Monitoring during Warfarin:** • Hemoglobin • PT INR

ANTI ARRYTHMIC	• Heart rate and rhythm • Hypotension • QT prolongation • GI upset, constipation • Serum electrolytes especially potassium, magnesium, and calcium • Serum creatinine as patients with compromised kidney function are at risk for digoxin toxicity.
ANTI DIABETIC	• Monitor blood glucose carefully and respond promptly to results
HYPOKALEMIA	• Abdominal pain Muscle weakness • Bradycardia Respiratory distress • Nausea and vomiting, Diarrhea • ECG changes • Renal function tests • Electrolyte levels for both potassium and magnesium
ANTI-ANXIETY	• Allergic reactions • Swelling of the mouth, face, lips, or tongue • Agitation • Irregular breathing patterns, slow or difficult breathing • Unusual or involuntary muscle movements or muscle tre • Seizures • Pain, swelling, or redness at the injection site • Blood pressure, respirations, and heart rate • Coughing • Dizziness • Drowsiness • Nausea, vomiting

83. <u>What Invasive Procedures need to be frequently monitored by nursing staff?</u>

CATEGORY OF MEDICINE	MONITORING REQUIRED	FREQUENCY OF MONITORING
CATH PROCEDURES	• Local Site:- (Hematoma / Bleeding /Swelling / Redness / Normal) • Vital Sign • Distal Pulse • Monitor the urine output Monitor for any dye allergic reaction	Monitor after 15 Minutes, 1 hour of the cath procedure, and after that it should be continued every 2 hourly up to 24 hours of cath procedure or as per the doctor's advice.
ARTERIAL LINE /	• Dressing	Monitor after 15 Minutes, 1 hour of the invasive procedure, and

CVP LINE	• Local Site • Watch for sign of infection • Watch for vitals • Watch for hematoma and thrombosis. • Monitor for bleeding • Monitor for waveform of arterial line • Monitor for air embolism • Monitor CVP pressure/Arterial Line Pressure • Watch for emphysema Watch for dislodgement	after that it should be continued every 2 hourly or as per the doctor's advice.
IABP	• Local Site • Watch for distal pulse (DP, PT) • Watch for hematoma, Air embolism, infection and bleeding. • Monitor the indicator of helium gas. • Monitor for augmentation pressure. • Watch for urine output and blood pressure. • Check the value of ACT and platelets. • Immobilization of lower extremity. • Watch for dislodgement • Chest X-ray	Monitor after 15 Minutes, 1 hour of the invasive procedure, and after that it should be continued every 2 hourly or as per the doctor's advice.
TEMPORARY PACEMAKER INSERTION	• Local Site • Vital sign (mainly pulse rate) • Check for sensitivity, rate and output setting. • Check for extra pair of battery. • Check for infection and hematoma. • Check for ECG rhythm. • Check for circuit connection. • Watch for hiccups and giddiness. • Immobilization of lower extremity. • Watch for dislodgement	Monitor after 15 Minutes, 1 hour of the invasive procedure, and after that it should be continued every 2 hourly or as per the doctor's advice.
TRACHEOSTOMY	• Check for redness, oozing, bleeding and sign of infection.	Monitor after 15 Minutes, 1 hour of the invasive

	• Every day dressing. • Maintain airway clearance. • Confirm position by X-ray. • Watch for dislodgement. Watch for cuff pressure for Adult Patient	procedure, and after that it should be continued every 2 hourly or as per the doctor's advice.

84. <u>What should be monitored in Patients after invasive procedure?</u>

CATEGORY OF MEDICINE	MONITORING REQUIRED
ARTERIAL LINE/ CVP/ FEMORAL LINE	• Dressing • Local site • Watch for sign of infection • Watch for vitals • Watch for hematoma and thrombosis • Monitor for bleeding • Monitor for waveform of arterial line • Monitor for air embolism • Monitor CVP pressure • Watch for emphysema • Watch for dislodgement
I/V LINE	• Watch for phlebitis, infiltration, extravasation and infection. • Change cannula in 72-96 hours. • Watch for dislodgement • Dressing • Local site
IABP	• Local site • Watch for distal pulse (DP, PT) • Watch for hematoma, Air embolism, infection and bleeding. • Monitor the indicator of helium gas. • Monitor for augmentation pressure. • Watch for urine output and blood pressure. • Check the value of ACT and platelets. • Immobilization of lower extremity. • Watch for dislodgement • Chest X-ray
PACEMAKER	• Local Site • Vital sign (mainly pulse rate)

	• Check for sensitivity, rate and output setting. • Check for extra pair of battery. • Check for infection and hematoma. • Check for ECG rhythm. • Check for circuit connection. • Watch for hiccups and giddiness. • Immobilization of lower extremity. • Watch for dislodgement.
PD CATHETER	• Vital sign (mainly BP) • Check for urine output. • Monitor abdominal girth. • Watch for infection, bleeding and hematoma. • Watch for color of output. • Watch for dislodgement. • Check for any kinking & obstruction.
ICD	• Watch for bleeding and sign of infection. • Watch for column movement • Watch for amount of drainage and color. • Check for X-ray for placement and in case of hemthorax and pneumotho • Monitor for pain at the site of insertion site. • Check for air leak and emphysema. • Watch for dislodgement. • Check for any kinking & obstruction. • Maintain tube below the chest level.
ITUBATION	• Watch for cuff pressure through menometer. (20-25 of H2O) • Head end side elevation to 35 to 45 degree. • Check for placement of tube by assessing bi-lateral lung sound and by X- ray. • Watch for ET blockage. • Check vitals. • Monitor breathing pattern. • Check ABG parameters. • Provide proper oral care. • Maintain airway clearance. • Watch for dislodgement • Check for any kinking & obstruction
TRACHEOSTOMY/	• Check for redness, oozing, bleeding and sign of infection.

SUCTIONING	• Every day dressing. • Maintain airway clearance. • Confirm position by X-ray. • Watch for dislodgement.
RYLE'S TUBE	• Check for placement of tube before feeding. • Check for blockage • Check for aspiration (if 50% of previous feed than withhold). • Check the aspiration color and amount. • Head elevation 30 to 45 degree while while feeding. • Proper fixation/proper position. • Watch for dislodgement. • Check for any kinking &obstruction
URINARY CATHETER	• Check for placement of catheter • Fixation of catheter on thigh. • Watch for color, amount of urine output. • Watch for infection, bleeding and sediments. • Check for any kinking 7 obstruction. • Maintain tube below the chest level • Skin cleanliness • dressing

85. <u>What is the procedure for near expiry medicine?</u>

Answer:

- Near expiry drug or consumables within 3 months of expiry date shall be sent back to pharmacy with return requisition.
- A separate shelf is allocated for short expiry drugs in all pharmacy, so that they can be easily identified and do not mix up with other pharmacy supplies.
- List of Drugs with expiry of next three months are sent to Pharmacy package store. Pharmacy package store summarizes the near expiry list from all stores and send email to the respective vendors. If the vendor agrees with this then medicines are return back, if vendor disagrees then medicines are dispense from pharmacies for indoor patients and near expiry of medicines less than 15 days are not dispense in discharge medicines and remaining medicines are packed in black bag after the expiry date and separated from the main circulation and kept at a designated place under the label "Expiry drugs".

86. <u>What is hospital Formulary?</u>

Answer:

Drug Formulary is the list of medicines and implants products used to treat cardiac patient at UNMICRC.

87. <u>What is the procedure for verbal order?</u>

Answer:

Telephone or Verbal Orders

- Verbal and telephone orders have a higher potential for errors. Verbal or telephone orders are to be accepted only when it is impossible or impractical for the treating consultant to write them.
- Verbal orders never to be given directly to the patient

Process for giving verbal or telephonic orders:

- The treating consultant/ Resident doctor will call up the concerned Medical Officer/ treating nursing staff at concerned department of the hospital.
- The treating consultant/Resident doctor identifies and specifies the patient's name and patient unique identification number for which the verbal order is being taken and communicates the order.
- The receiver will document the order immediately on the progress note/treatment sheet including the date, time and the consultant name. The receiver of the verbal order writes Verbal Order or Telephonic order above the prescription, mention the name and status and signs the order.
- The Receiver should read back the order to the treating consultant including the patient's name, Unique identification number, drug name and spelling of the drug to avoid an error due to sound alike drugs, dosage, pronouncing it in single digits (e.g. 15 mg should be read as one five), route, frequency (e.g. three times daily, not TID)
- The Receiver should also request the indication for the medication to assist in avoiding errors.
- The treating consultant must countersign the order as soon as possible or within 24 hours after communicating the order.

88. List out the medicines that can be given as verbal order.

Sr. No.	Name of Medicine *
1	TAB. / SYP. CETIRIZINE
2	TAB. / SACHET SPORLAC
3	SYRUP / TAB. DOMSTAL (DOMPERIDONE)
4	TAB. AVIL (PHENIRAMINE)
5	TAB. PANTOPRAZOLE
6	TAB. RANITIDINE

Sr. No.	Name of Medicine *
7	TAB./SYP. DIGENE (MAGNESIUM HYDROXIDE + SIMETHICONE + SODIUM CARBOXYMETHYLCELLULOSE + DRIED ALUMINIUM HYDROXIDE GEL)
8	TAB. AMLODIPINE
9	TAB. / INJ. / SYRUP PARACETAMOL
10	DUOLIN / BUDECORT NEBULIZATION
11	TAB. / INJ. EMSET (ONDENSATRON)
12	INJ. HYDROCORTISONE
13	DULCOLAX SUPPOSITORY
14	TAB. / INJ. / SYP. FRUSEMIDE
15	NEOPEPTINE DROP (FOR PAEDIATRIC PATIENT)

89. How medicines are stored?

Answer:

- Medicines are stored as per alphabetical order (A to Z).
- Also maintain all stock with first in first out system (FIFO) or first expiry first out.
- Surgical items are stored in Compact storage system and stock level is maintained as per FSN (Fast moving, Slow moving and Non-moving) system. Minimum level for one and half month and maximum level for two month is maintained considering the usage of last six month.
- Training should be done for nursing professionals regarding the need and sound inventory management practice.

Storage of Sound alike, Look alike Medicine:

- Sound- alike, Look-alike medicines are identified and stored separately.
- The list of sound alike, look alike medicine should be kept and update on regular intervals depending on changes in the formulary.

90. What should we do to improve the safety of High Alert Medication while storage?

Answer:

1. All medications are kept under lock
2. High Alert Medication stickers are placed on the medicines
3. Narcotic Medications are kept under double lock and keys with two different staff.
4. LASA medications are stored separately

91. What are the procedures to be followed to use Narcotic Drug?

Answer:

- All narcotic drugs are kept in double lock & key.
- The prescription form (Form 3E) is filled by the prescribing doctor at patient care areas and are submitted to the central pharmacy store.

- Narcotic drugs usage record is maintained & documented in Narcotic stock book of respective store.
- The used empty vials/ampoules for narcotic drugs are returned from patient care areas to the central store which are duly checked by the pharmacist and record for the same are duly signed by pharmacist in empty vial register. These empty vials are then packed and disposal is done according to BMW disposal guidelines.
- The compiled central register of daily usage from all wards is maintained in pharmacy store. This record is also maintained in Form 3H for daily usage.

92. <u>At which temperature medicines are stored in refrigerator?</u>

Answer:

- The Medicines are stored in refrigerator requires cooling (2 to 8 °C).
- Special refrigerator is required in OT store for storage of BioGlue (Evicel) which capacity is to maintain temperature up to -35 °C.

93. <u>What are the Principles of Safe Medications?</u>

Answer:

1. Right Patient	6. Right Route
2. Right Medication	7. Right to Refuse
3. Right Dose	8. Right Assessment
4. Right Time	9.Right Evaluation
5. Right Education	10.Right Documentation

94. <u>What are the precautions taken for High risk medication?</u>

Answer:

- All look alike and sound alike medicines are considered as high risk medicines which are stored separately to avoid errors and are labelled properly.
- All narcotics are also considered as high risk medicines and are stored in double lock and key.
- There are certain other medicines like insulin, heparin, anticoagulants, etc. are considered as high risk.
- All the high risk medicines must be double verified before dispensing or before administration and the verification shall be done by doctor as well as double verification done by nurse and documented.

95. What is medicine reconciliation?

Answer:

- The purpose is to ensure that the list of medication that a patient is to receive is complete and up to date in relation to past clinical conditions and present care plan.
- The prescribed medicine shall be checked for accuracy at the transition points, such as the time of admission, transfer of the patient from one ward to another, or at the time of discharge.
- There is a system for effective communication during handover regarding reconciliation of medications.
- Detailed drug history of patient's medicines at home need to be taken in OPD, Emergency & at the time of hospitalization.
- Name, Dose, Frequency and duration of the drug & Time of last dose taken need to be clearly documented in the history sheet (as mentioned below). This information needs to be taken into consideration while generating the prescription.
- Similarly, at the time of discharge, clear instructions need to be given regarding which medicines are to be continued and which medicines are to be stopped.
- All prescriptions (OPD, Indoor, Transfer and Discharge) must contain a line that Home Medicines are reviewed and reconciled.

96. What is Adverse Drug Event?

Answer:

Adverse Drug Event can be defined as "Any untoward medical occurrence that may present during treatment with a pharmaceutical product but which does not necessarily have a causal relationship with this treatment."

97. What is adverse drug reaction (ADR)?

Answer:

Adverse Drug Reaction can be defined as "A response to a drug which is unintended and which occurs at doses normally used for prophylaxis, diagnosis, or therapy of disease or for the modification of physiologic function."

98. What to do if an ADR occurred?

Answer:

- Stop administration of the drug.
- Assess the patient.
- Implement adjustments in patient's treatment as ordered.
- If any allergic reaction has occurred in past history of patient should be mentioned.
- Document the description of the Adverse Drug Reaction in Adverse Drug Reaction Form, categorize subsequently, and monitor in the progress record.

99. What are the Levels of ADR?

Answer:

- Level 1: ADR occurred but required no change in treatment.
- Level 2: Drug held, discontinued or changed but no additional treatment required.
- Level 3: Drug held, discontinued or changed and/or additional treatment required.
- Level 4: ADR required patient transfer to ICU
- Level 5: ADR caused permanent harm to patient
- Level 6: ADR directly or indirectly led to patient death.

100. Define near miss and no harm.

Answer:

- **Near Miss**: - It is an unplanned event that did not result in injury, illness, or damage but had the potential to do so.
- **No harm**- No harm is defined as the error is not recognized and the deed is done but fortunately for the healthcare professional, the expected adverse event does not occur.

101. What is sentinel events?

Answer:

A relatively infrequent, unexpected incident, related to system or process deficiencies, which leads to death or **major and enduring loss** of function for a recipient of healthcare services.

(Major and enduring loss of function refers to sensory, motor, physiological, or psychological impairment not present at the time services were sought or begun. The impairment lasts for a minimum period of two weeks and is not related to an underlying condition.)

102. What is medication error?

Answer:

A medication error is defined by any preventable event, that may cause or lead to inappropriate medication use or patient harm or which has the risk of being administered in a manner different from the prescribed norms while the medication is in the control of the Health Care Professional.

103. Enlist types of medication error.

Answer:

- Prescription error
- Transcription error

- Indenting/requisition error
- Dispensing error
- Administration error
- Documentation Error

CHAPTER-4 EDUCATION, COMMUNICATION AND GUIDANCE (ECG)

104. <u>What can we do for effective communication (internal/within hospital)?</u>

Answer:

1. Use of ISBAR (I-Identification, S–Situation, B–Background, A– Assessment, R – Recommendation) while giving the hand over/transfer.
2. Use read back policy while receiving any critical value
3. Use of repeat back while receiving the verbal order

105. <u>What are the 7 Cs of communication?</u>

Answer:

1. Clear
2. Concise
3. Concrete
4. Correct
5. Coherent
6. Complete
7. Courteous

106. <u>In which condition, enhanced communication is required?</u>

Answer:

The list of events where enhanced communication is to be ensured to the patients, families etc. is as follows:-

- Breaking bad news
- Disclosing death
- Handling an aggressive patient/family
- Communication in case of emergency/disasters
- Disclosure of an adverse event
- Managing an angry employee
- Handling patient-staff argument

107. <u>Which situations are considered as unacceptable for Communication?</u>

Answer:

The following situations are considered as unacceptable by the organization and the staff has been trained on the same.

- Offensive language, swearing
- Abusing a patient
- Unwanted or abusive remarks of sexual nature
- Offensive gestures
- Physical/ Verbal Treats
- Bullying or intimidating behaviour
- Attempting Assault's
- Hurting religious or cultural sentiments
- Employees fighting in the corridors
- Disrespect to any religion

108. <u>What are the communication barriers?</u>

- Answer:
- Time constraints
- Environmental issues such as noise and privacy
- Pain and fatigue
- Embarrassment and anxiety
- Use of jargon
- Values and beliefs
- Information overload

109. <u>How can we overcome communication barriers?</u>

Answer:

- Explain the patients & family in an understandable language about the patient disease, condition, complication and regarding treatment.
- The organization identifies the communication barrier and it is sorted by the language interpreters, the person to explain in another way, family member or a friend.
- To speak to a doctor, departmental coordinator or departmental nursing in charge/matron.
- Training is imparted to address the patient's needs with impaired communication
- It is also necessary to identify patients with speech and hearing disability so that they can be appropriately counseled.

110. <u>What are the topics should be included in Patient education?</u>

Answer:

- Education about treatment plan and expected outcome at regular interval including possible complications.

- Hospital shall ensure that Care plan is prepared and modified in consultation with patient and/or family members. The religious, cultural and spiritual views of the patient and/or family shall be taken into consideration while preparing or modifying plan of care.
- Education about the result of diagnostic tests and diagnosis.
- Education about change in condition including improvement, deterioration or occurrence of complications.
- Education about procedure/surgery, its risk, benefits and alternatives.
- Education about Safe and effective use of medication and the potential side effects of the medication.
- Education about food drug interaction
- Education about diet and nutrition
- Education about immunizations
- Education about their specific disease process, complications, prevention strategies and preventing infections including lifestyle modifications (Stress management , physical exercise, cessation of smoking and substance abuse), diet changes, immunization where appropriate through booklets/ videos/leaflets.
- Education about hand washing, other techniques and avoiding overcrowding near the patient to prevent Healthcare associated infection.
- Special educational needs are identified and provide through the patient counselling, use of printed material and videos.
- Patient and relative are clearly explained in understandable language and format about their Care.
- Counselling about condition of critically ill patients, long-stay patients to family members by treating doctor/physiotherapist/nurse.
- Education about organ donation and organ transplant
- Education in End of life care
- Education regarding emergency care
- Education regarding pharmacological and non-pharmacological pain management
- Education about Breast feeding, Kangaroo Mother care (For Paediatric patients)
- Education about Mother Milk Bank
- Education on patient safety (e.g. fall prevention, proper use of medical equipment, etc.)

111. <u>Mention 5 patient rights and 5 patient responsibilities.</u>

Answer:

Patient's Right:-

- Right to be treated without any discrimination

- Right to know about medical care
- Right to know about treatment cost
- Right to refuse the treatment
- Right to have privacy & confidentiality of information
- Right to Complaint
- Right to be treated with dignity and respect
- Right to have second opinion
- Right to have safe and secure environment
- Right to have informed consent

Patient's Responsibility:-

- To give proper information to care givers
- To follow the treatment plan and cooperate with the staff
- To follow the rules and regulation of hospital
- To pay hospital bills in time.
- Not to damage the hospital property
- To take care of belongings
- To provide scheme related documents or insurance related documents if required.

CHAPTER-5 Infection Control practices (ICP)

112. <u>What is a MULTIDOSE VIAL?</u>

- Multidose vials Multiple dose/multi-dose medication vials must be handled in accordance with the manufacturer's instructions to include:
- Place the expiration date on the opened vial. The expiration date is 28 days after the vial is opened or the manufacturer's recommended expiration date (whichever comes first) and discard at time of expiration.
- Cleanse the access diaphragm of multi-dose vials with 70% alcohol (such as alcohol swabs) before inserting a device into the vial.
- Use a sterile device to access a multi-dose vial and avoid touch contamination of the device before penetrating the access diaphragm.
- Discard the multi-dose vial is if user suspects vial sterility has been compromised.
- Vials of saline or water may be used as multi-dose only if they contain a preservative
- Visual inspection of the vial should be accomplished each time medication is withdrawn to determine that the stopper is intact and that no unusual particulate matter is in the vial.
- Check the vial for a. Turbidity b. Discoloration c. Integrity of rubber stopper seal.

- Avoid opening more than one multidose vial of the same medication at the same time.
- Refrigeration of opened multidose vials is product specific (follow the manufacturer recommendation for storage).Routine refrigeration of opened multidose vials is not recommended.
- All multidose vial should be label with opening date.
- Expiry date is counts as 28 days of opening date or expiry by manufacturer whichever is earlier.
- Single use vials i. Single use parenteral drugs do not contain preservatives and should be immediately discarded by the original user after the dose is withdrawn.

113. <u>How to segregate Bio Medical Waste?</u>

Answer:

- **Yellow**– Infectious non plastic (Dressing cotton, bandages, pads, all dressing materials, blood stained clothes, blood stained bed sheets, plaster casts, body parts, used blood bags & blood component bags and specimens etc.)
- **Red** – Infectious Plastic (Gloves, Uro Bags, Iv Sets, Catheters & Feeding Tubes, Drains & ICD)
- **Blue –** Sharp Glass items (Broken Glass, Slides & Cover Glass, Ampoules)
- White puncture proof container- Sharp items (Needle, knife, scalpel, stillet)
- Note:
- When bags are ¾ filled, it should be tied and sent it to bio medical waste storage area in its designated covered trolley with using proper PPE.

114. <u>Describe types of hand hygiene.</u>

Answer:

- **Hand rub**: when hands are not visibly contaminated.
- **Hand Wash**: when hands are visibly contaminated**.**

115. <u>What are the seven steps of Hand washing?</u>

Answer:

- Step 1: Palm to palm
- Step 2: Right palm over left dorsum and left palm over right dorsum (Back of the palms)
- Step 3: Palm to palm with fingers interlaced
- Step 4: Backs of fingers to opposing palms with fingers interlocked
- Step 5: Rotational rubbing of right thumb clasped in left palm and vice versa
- Step 6: Rotational rubbing of finger tips
- Step 7: Rotational rubbing of wrist

Time of duration for Hand washing – 2-3 minutes
Time of duration for Hand Rubbing– 20-30 Seconds

116. <u>When Hand Washing with soap and water should be done?</u>

- while entering work place
- Your hands are visibly soil or dirty
- Hands are visibly contaminated with blood, body fluids, secretions and excretions
- Before and after drinking, eating and food contact
- After using rest room
- Before leaving work place

117. <u>When Hand washing by using alcohol-based hand rub should be done?</u>

- Before having direct contact with patients
- Before entering and leaving isolation room
- Before taking care of susceptible patients
- Before performing any invasive procedures
- Before moving from a contaminated site to clean body site
- Before having contact with body fluids, wounds or broken skin
- Before wearing and after removing gloves
- Between contact with different patients
- After having direct contact with patient skin
- After touching equipment or furniture near the patients

118. <u>What are the 5 moment of Hand Hygiene?</u>

Answer:

1. Before touching patient
2. Before clean/aseptic procedure
3. After Blood/Body fluid exposure risk
4. After touching patient
5. After touching patient surrounding

119. <u>What to do in case of Blood/Mercury Spillage?</u>

Answer:

Blood and Body Fluid Spillage Management

- Wear appropriate PPEs (cap, mask, clean glove, and apron) before spillage management.
- Cover the spillage with absorbent material (tissue paper/wastage cloth).
- Carefully pour freshly prepared 1% sodium hypochlorite on tissue paper.

- Allow 20 minutes exposure time with disinfectant.
- Pickup tissue paper with gloved hand and place in yellow bin.
- Again mop with 1% sodium hypochlorite.
- Removes gloves, mutilate & discard in red bin & wash hands then remove goggle, gown, cap, mask & do hand wash again.

Note: Do not use hypochlorite solution directly, if urine and vomit spillage. First clean with wastage cloth/ tissue paper then disinfect with 1% sodium hypochlorite Acid in this substance may generate chlorine gas.

Mercury Spillage management

- Do not touch mercury with bare hands
- Remove jewellery
- Wear protective gloves
- Get a scotch tape
- A 10 CC syringe without needle and ready 3/4 water containing plastic bottle
- Flash torch on mercury to locate it
- Gather the mercury with card board or Suck the mercury with 10 CC syringe without needle
- Pour the contain of the syringe in plastic bottle containing water
- Seal the bottle with scotch tape and send it to bio medical store

Note:
Mercury should be collected in bottle containing water to prevent vaporization.

120. Do's and Don'ts in handling of Syringes and Needles:

Do's	**Don'ts**
Pass syringes and needles in a tray preferably cut it with Hub cutter at point of use.	Never Pass syringes and needles hand to hand.
Put syringes in 1% hypochlorite solution	Do not bend / or break used needle with hands
Remove cap of needle near the point of use.	Never test the fineness of the needle's tip before use with bare or gloved hand.
Pick up open needle from tray/drum with forceps.	Never pick up open needle by hand.
Destroy syringes by cutting their nozzle	Never recap the needles.

121. <u>Do's and Don'ts followed in case of needle stick injury.</u>

Answer:

Do's

- Remove gloves, if appropriate
- Wash site thoroughly with running water with using antiseptic solution.
- Irrigate thoroughly with water or saline if splashes have gone into the eye or mouth.
- Immediate report to Infection Control Department.

Don't

- Do not panic
- Do not reflexly place finger into mouth
- Do not squeeze blood from wound, this causes trauma and inflammation, increasing risk of transmission
- Do not use bleach, alcohol, betadine, or iodine, which may be caustic trauma

122. <u>How to prevent needle stick injury?</u>

Answer:

Prevention of NSI

- Universal (or standard) precautions
- Hand washing
- Covering cuts and abrasions
- Safe injection practice
- Immunization
- Be Needle Smart
  - Do not recap or re-use
  - Do not bend
  - Do not remove
  - Do not transport

123. <u>What is soiled linen and infected linen?</u>

Answer:

- **Soiled Linen:** - Linen which is used in patients but not contaminated with body fluids or fecal matter is called soiled linen.
- **Infectious Linen**: - Any linen visibly soiled with blood or body fluid of a patient is to be treated as Infectious linen.

124. <u>Procedure for soiled linen and infected linen?</u>

Answer:

- All soiled linen should be packed in plain white plastic bag after soaking in 1% hypochlorite for 30 min.

- All infected linen should be packed in red dotted white plastic bag after soaking in 1% hypochlorite for 30 min.
- Soiled and infected Linen should be dispatched in closed trolley with the label of S.P. (standard precautions) We have created centralized pre wash area at basement new building opposite to Bio Medical Waste Collection Area, so all the soiled linen will be treated with hypochlorite and then only will be sent to Laundry.

125. <u>What is standard precaution?</u>

Answer:

Standard Precautions are the minimum infection prevention practices that apply to all patient care, regardless of suspected or confirmed infection status of the patient, in any setting where health care is delivered.

126. <u>Describe the elements of standard precautions.</u>

Answer:

- Personal hygiene practices, particularly hand hygiene, aim to reduce the risk of contact transmission of infectious agents.
- The use of personal protective equipment.
- Safe Injection & Infusion Practices (i.e., aseptic Technique for parenteral medications).
- Cleaning, disinfection and sterilization of patient care equipment.
- Environment cleaning
- Linen Management
- Practicing respiratory hygiene and cough etiquette reduces risk of transmission of infection.
- Isolation(Barrier Nursing) & Reverse Barrier Nursing
- Appropriate handling and disposal of sharps assists in preventing transmission of blood-borne diseases with pre & post exposure prophylaxis to healthcare workers.
- Spills management(Blood /body fluid & mercury)
- Bio-Medical Waste management

127. <u>What is Barrier Nursing (Isolation)?</u>

Answer:

Source Isolation (Barrier nursing) aims to confine the infectious agent and prevent its spread from one patient to another.

128. <u>What is Reverse Barrier Nursing?</u>

Answer:

Protective Isolation (Reverse barrier nursing) aims to protect an immune-compromised patient who is at high risk of acquiring micro-organisms from either the environment or from other patients, staff or visitors.

129. How to prepare 1% Sodium Hypochlorite solution?

Answer:

Add one part of solution in four part of water.

(800ml water+200 ml disinfectant)

130. What is Cleaning, Disinfection & Sterilization?

Answer:

- CLEANING: Cleaning is the removal of visible soil (e.g., organic and inorganic material) from objects and surfaces and normally is accomplished manually or mechanically using water with detergents or enzymatic products.
- DISINFECTION: Disinfection describes a process that eliminates many or all pathogenic microorganisms, except bacterial spores, on inanimate objects.
- STERILIZATION: Sterilization describes a process that destroys or eliminates all forms of microbial life including bacterial spores.

131. Describe Transmission Based Precautions.

Answer:

- Transmission-based Precautions are designed for patients documented (confirmed) or suspected to be infected or colonized with highly transmissible or epidemiologically important pathogens for which additional precautions beyond Standard Precautions are needed to interrupt transmission in hospital. Transmission-based Precautions are to be used on an empiric, temporary basis until a diagnosis can be made; these empiric, temporary precautions are to be used in addition to Standard Precautions.
- There are three types of Transmission-based Precautions:
- Airborne precautions
- Droplet precautions
- Contact precautions

132. What is Bundle care?

Answer:

Care "bundles" in infection prevention and safety are simple sets of evidence-based practices that, when implemented collectively, improve the reliability of their delivery and improve patient outcomes.

133. What are the recommended measures to reduce Hospital Associated Infection in various bundles?

Answer:

A. CLABSI Bundle

- Hand Hygiene
- Maximal Barrier Precautions
- Chlorhexidine skin preparation
- Optimal Site selection
- Daily review of line necessity
- "Scrub the Hub" with 70% alcohol every time before and after assessing hub

B. CAUTI Bundle

- Daily assessment of catheter need
- Catheter secured to patient
- Hand Hygiene
- Daily meatal hygiene with soap and water
- Drainage bag emptied using a clean container
- Unobstructed flow maintained

C. VAP Bundle

- Head of Bed elevation at 30® to 45®
- Daily sedation vacation and daily assessment of readiness to wean
- Subglotic secretion drainage
- Daily mouth care with chlorhexidine

134. What is HAI? Type of HAIs?

Answer:

HAI (Healthcare Associated Infection):

HAI is strictly and specifically an infection "not present or incubating prior to admission to the hospital, but generally occurring 48 hours after admission."

Types of HAIs as quality indicator

- **CAUTI** –Catheter Associated Urinary Tract Infection
- **VAP**- Ventilator Associated Pneumoniae
- **CLABSI**- Central Lines Associated Blood Stream Infection
- **SSI** –Surgical Site Infection

135. What is safe injection/Infusion practice?

Answer:

Injection safety or safe injection practices are practices intended to prevent transmission of infectious diseases. Patients and healthcare providers must both insist on nothing less than "One Needle, One Syringe, and Only One Time" for each and every injection.

136. What is schedule of HEPATITIS B vaccination?

Answer:

Three dose: 0-1-6

- 0 –Dose
- 1 - Month
- 6- Month

137. What is MSDS? What should we do in case of spillage of hazardous material or exposure to body parts?

Answer:-

- MSDS is Material Safety Data Sheet. Management of hazardous material All the hazardous materials must have "Caution" sticker on them and MSDS for the same must be displayed in the department.
- In case of spillage of these hazardous material, steps mentioned under 'Accidental release measure' to be followed.
- In case any body parts get exposed to these hazardous material, 'First measure steps' mentioned in MSDS to be followed by the person.

CHAPTER-6 Empowerment and Governance (EG)

138. What is the Mission & Vision of your Hospital?

Answer:

Vision: Our vision is to be recognized as World Class facility in quality cardiac care and as a center of excellence in Cardiovascular Research.

Mission: To Offer World Class Quality Care in cardiology at No cost or Concessional cost and to provide free super specialty higher education in Cardiology, Cardiovascular Thoracic Surgery & Cardiac Anesthesia.

139. What is Nursing Mission & Vision?

Answer:

Vision: - To provide highest quality of Cardiac Nursing Care through advance nursing practices.

Mission: - To deliver evidence based, cost effective and safe cardiac nursing care with compassion and empathy.

140. What are the Nursing values?

Answer:

1. Compassion
2. Trustworthiness
3. Humility

4. Accountability
5. Curiosity
6. Caring
7. Integrity
8. Respect
9. Commitment
10. Loyalty
11. Excellence

141. <u>Who is the coordinator of the Nursing Quality Assurance Committee? & frequency of Nursing Quality Assurance Committee meeting?</u>

Answer:-

- Mrs. Raksha Patel is the coordinator of the Nursing Quality Assurance Committee.
- Nursing Quality Assurance Committee meets once in a month or as and when needed.

142. <u>Who is the coordinator of the Nursing Management Committee? & frequency of Nursing Management Committee meeting?</u>

Answer:-

- Mrs. Parlin Deepak is the coordinator of the Nursing Management Committee.
- Nursing Management Committee meets once in a three month or as and when needed.

143. <u>What is nursing empowerment?</u>

Answer:-

Nursing empowerment means the ability to effectively motivate and mobilize self and others to accomplish positive outcomes in nursing practice and work environment.

144. <u>What empowerment are given to the nursing staff at our institute?</u>

Answer:-

Nurses are empowered:

- To withhold discharge and transfer of patients based on patient's condition.
- To do nursing assessment and define nursing care plan.
- To give treatment and assist in various procedures as per their expertise and skill.
- To participate in research activities.
- To report medication errors.
- To report safety regarding incidents.
- To manage patients care in case of urgency required till Code Blue Team or treating consultant will come. All nursing staffs are trained in BLS & ACLS and empowered to initiate CPR timely based on critical condition of the patient.
- To announce various hospital emergency codes based on situations. Nursing staffs are the members of Code Blue and Code Yellow team.
- Senior Nursing personnel are empowered to manage department (routine as well as during an emergency) and maintain logistic items.

- Senior Nursing personnel are empowered to take training and participate in an audits (Like nursing audit, clinical audit, infection control audit etc.)
- All the assistant matrons are empowered to become a members in various committee.

145. <u>What is a process of escalation for nursing staff?</u>

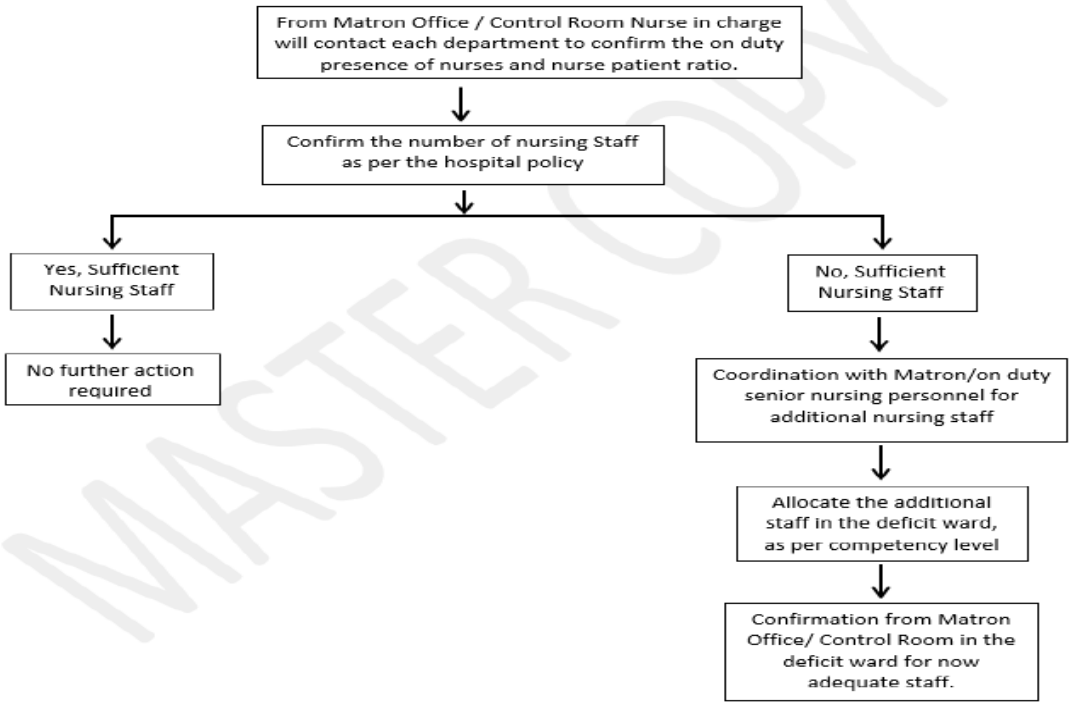
Clinical Escalation:

- The nursing staff identifies changes in a patient's condition or unexpected clinical events.
- They promptly communicate these concerns to the Incharge Nursing staff/Senior Nursing Staff/On duty doctor.
- Incharge Nursing staff/Senior Nursing Staff/On duty doctor reviews the concerns, assesses the patient's condition, and determines the sign of deterioration then if required shall activate a code blue or inform to senior doctor or shift the patient to critical department (if required)
- All clinical nursing escalations must be documented accurately in a nurses note.

Non-Clinical Escalation:

- The nursing staff identifies non-clinical issues that may impact patient safety or facility operations.
- They report these concerns to the Incharge Nursing staff / Senior Nursing Staff / the designated personnel responsible for non-clinical escalations.
- Incharge Nursing staff / Senior Nursing Staff / the designated personnel assesses the severity and urgency of the issue and determines the appropriate course of action.
- If necessary, the issue is escalated to the relevant departments or individuals responsible for addressing non-clinical concerns.
- All non-clinical escalations must be documented.

Nursing Escalation protocol in case of shortfall of nursing staff



CHAPTER-7 NURSING QUALITY INDICATORS (NQI)

146. <u>What is the process for Nursing Audit?</u>

Answer:-

- Selection of topic/Identify problem or issue
- Set the criteria and Standard
- Data collection
- Report preparation
- Implement the Change
- Re audit

147. <u>How the patient and/relative can register the complaints?</u>

Answer:-

Patient and relatives register complaint by following ways:-

- By approaching any member of the healthcare team who is involved in their care.

- By appointing person for grievance redressal procedure
- By providing a contact number to register their compliant.
- By filling up the feedback form and hand it over at concern department.
- By approaching complaint/suggestion box available in departments.
- Regular rounds by hospital authority to patient.
- By contacting hospital control room number.

148. Describe Clinical & Managerial Nursing Quality Indicators.

Answer

Sr. No.			Clinical & Managerial Nursing Quality Indicators
Monitoring includes appropriate patient assessment by Nurses			
1	1	a	Time taken for Initial Assessment of Indoor Patients by Nurses (Non critical areas)
2		b	Time taken for Initial Assessment of Indoor Patients by Nurses (critical areas)
Monitoring includes infection control activities by Nurses			
3	2	a	Catheter Associated Urinary Tract Infection Rate
4		b	Ventilator Associated Pneumonia Rate
5		c	Central Line Associated Blood stream infection rate
6		d	Surgical site infection rate
Monitoring includes risk management			
7	3	a	Percentage of Nursing Staffs provided pre-exposure prophylaxis
Monitoring includes utilization of nurses manpower			
8	4	a	Nurse-patient ratio for ICUs
9		b	Nurse-patient ratio for Wards
Monitoring includes Nurses satisfaction			
10	5	a	Nurse satisfaction index
11		b	Nurse Attrition Rate
12		c	Nurse Absenteeism Rate
Monitoring includes Sentinel Event, Near Misses Event & Blood & Body Fluid Exposure			

13	6	a	Number of sentinel events reported, collected and analyzed within the defined time-frame
14		b	Percentage of Near Misses by nursing staffs from all Incidents reported
15		c	Incidence of blood & body fluid exposure to Nursing Staffs
Monitoring includes patient safety goals by nurses			
16	7	a	Percentage of handovers given by Nurses
17		b	Incidence of Patient Identification errors by Nurses

149. Committee List: -

S.N	Hospital Committees	Committee Co-ordinators
1	Core Committee	Dr. Naitik Patel
2	Quality Improvement committee	Dr. Kalgi Shah
3	Hospital Safety Committee	Mr. Nishanpuri Goswami
4	Infection Prevention and Control Committee	Dr. Harmika Parmar
5	Pharmaco Therapeutic Committee	Swati Savaliya/ Pathik Patel
6	Grievance Redressal Committee	Dr. Ashish Dave
7	Internal Complaint committee	Dr. Khyati Pandya
8	CPR Analysis Committee	Dr. Visarad Trivedi
9	Medical Record Audit Committee	Dr. Khushbu patel
10	Radiation Safety Committee	Dr. Vishal Patel
11	Nursing Quality Assurance Committee	Mrs. Raksha Patel
12	Nursing Management Committee	Mrs. Parlin Deepak
13	Emergency Department Quality Improvement Committee	Dr Meena Parmar
14	Hospital Blood Transfusion Committee	Dr Shital Soni
15	MRI Safety Committee	Dr Dinesh Patel
16	Quality Improvement Committee for NABH Digital Health Standards	Ms. Mita Dhruv

17	Incident Review Committee	Dr. Dushyant Bhatt
18	Management Review Committee	Dr. Payal Tripathi
19	Clinicopathology Committee	Dr. Payal Tripathi
20	Clinicomicrobiology Committee	Dr. Dinesh Khandhadiya
21	Clinicoradiology Committee	Dr. Megha Sheth
22	Condemnation Committee	Dr. Arti Chaudhary
23	Credentialing & Privileging committee	Dr. Ashish Dave
24	Antimicrobial Stewardship Committee	Dr. Harmika Parmar
25	IT Technical Committee	Ms. Mita Dhruv

GENERAL QUESTIONS

150. <u>What is the difference between infiltration, phlebitis and extravasation?</u>

Answer:-

- Phlebitis: the inflammation of the vein
- Infiltration: the unintentional administration of non-vesicant solutions into adjacent tissues.
- Extravasation: the unintentional administration of vesicant solutions into adjacent tissues.

151. <u>Describe Glasgow Coma Scale.</u>

Answer:-

Eye Opening (E)

- 4 = spontaneous
- 3 = to sound
- 2 = to pressure
- 1 = none
- NT = not testable

Verbal Response (V)

- 5 = orientated
- 4 = confused
- 3 = words, but not coherent
- 2 = sounds, but no words
- 1 = none

- NT = not testable

Motor Response (M)

- 6 = obeys command
- 5 = localizing
- 4 = normal flexion
- 3 = abnormal flexion
- 2 = extension
- 1 = none
- NT = not testable

152. General blood investigation and its normal value:

Answer:-

HEMOGLOBIN:	12-16 g/dL (female) , 14-17 g/dL (male)
THROMBOCYTES (PLATELETS):	150-450 x 103 /mm3
WHITE BLOOD CELLS: (TOTAL)	4000-10,000/cmm
PLATELETS COUNT :	1,50,000 - 4,50,000 /cmm
S. CREATININE:	0.6-1.2 mg/dL
D-DIMER:	≤300 ng/mL
GLUCOSE: FASTING:	70-110 mg/dL
2-H POSTPRANDIAL:	< 120 mg/dL
BILIRUBIN	0-0.3 mg/dL (direct) 0.3-1.2 mg/dL (total)
HIGH SENSITIVE TROPONINE I QUANTITATION :	Male :34.2 ng/L Female: 15.6 ng/L Overall: 26 ng/L
CRP-Q:	< or = 5.0 mg/L
CPK-MB:	< 25 U/L
LDH:	125 to 220 U/L
PT:	9.6 to 12.4 Sec
INR:	The Recommended range for INR during most indications for oral anticoagulants is **2 - 3** OR **2.5 - 3.5** for patients with mechanical heart valves.
NA+: (SODIUM)	136 to 145 mEq/L
K+: (POTASSIUM)	3.7 to 5.5 mEq/L
CHLORIDE:	98 to 107 mEq/L
	PH 7.37 - 7.44 **PCO2 35 - 45 MM HG** **PO2 80 - 100 MM HG** **BICARBONATE (HCO3) 22 - 26 MEQ/L**

ARTERIAL BLOOD GASE	**O2 SATURATION >95%**

153. <u>What is the difference between paeditaric & Adult Cardiac Care?</u>

Answer:-

Paediatric care is family oriented and relies on significant parental involvement in decision making; however, adult care is patient-specific and requires autonomous, independent skills of patients.

Paediatric patients below the age of 12 years consider as a vulnerable patients. hence, care shall be given as per the criteria.

154. <u>What is intubation?</u>

Answer:-

Intubation is the process of inserting a tube, called an endotracheal tube (ET), through the mouth and then into the airway. This is done so that a patient can be placed on a ventilator to assist with breathing during anesthesia, sedation, or severe illness.

<u>ABBREVIATIONS</u>

HTN: Hypertension

DM: Diabetes Mellitus

CAD: Coronary Artery Disease

ACS: Acute Coronary Syndrome

MI: Myocardial Infarction

UA: Unstable Angina

SVD: Single Vessel Disease

DVD: Double Vessel Disease

TVD: Triple Vessel Disease

LMCA (**left main coronary artery)** Disease

RHD: **Rheumatic heart disease**

CHD: Congenital Heart Disease

TOF: Tetralogy of Fallot

DTGA: Dextro-Transposition of the Great Arteries

MR: Mitral Regurgitation

MS: Mitral Stenosis

Fill in the blanks.

1. In our hospital, credentialing and privileging of all the doctors and nurses are given privileges as per their **qualifications and skills.**

2. To eliminate wrong site, wrong patient, wrong procedure or surgery, Time out is performed before **any invasive procedure**.

3. Verbal restraint orders must be co-signed by the Consultant within **24 hours** of the initiation of restraint.

4. A **Rapid Response Team (RRT)** is a team of health care providers that responds to patients with early warning signs of deterioration in non-intensive care units to prevent medical emergency.

5. Adult patients shall be monitored at every **two hourly** & children shall be monitored at every **one hourly** in case of restrain.

6. Hand hygiene with alcohol based hand rubs is to be done when hands are **not visibly contaminated.** If hands are visibly contaminated then do hand wash with **soap and water.**

7. **MORSE fall risk assessment** tool is used to assess the risk of fall.

8. Soiled and infected Linen should be dispatched in closed trolley with the label of **S.P.(standard precautions).**

9. Visitors are allowed to come at stipulated time for visiting that is **4:00 PM to 6:00 PM.**

10. **Incident Reporting** Form is used for documentation of any event of accident.

11. Any of the Incident must be reported within **24 hours or as soon as possible** of the occurrence of the incident and follow-up should be done within **3 days**.

12. While administering the **high alert medicines**, written Order should be there, Double check has to be performed before administration and document the same with double sign.

13. **Stage 1** of self-assessment is not applicable to junior level employee.

Multiple choice questions (MCQs)

1. Medicine reconciliation must be done:
   A. During Admission of patient
   B. During Transfer of patient
   C. During Discharge of patient
   D. **All of above**

2. This information regarding patient care and hospital administration shall be kept in following
   A. Electronic - Hospital Management Information system
   B. Medical Records
   C. Registers & Files
   D. All of above

3. OPD patients informed about their follow up visit in:
   A. OPD case paper
   B. OPD prescription
   C. **Both A & B**
   D. None of above
4. Where is the tariff list available if patient wants to refer?
   A. Registration Counter (Both – OPD/IPD & EMCS)
   B. Reception Counter
   C. "May I help you" Desk.
   D. All of above

5. On the first day of the joining employee has to report to the HR department, for the following procedure would be followed:
   A. Medical Examination
   B. Joining Report
   C. Bank formalities and Other forms
   D. All of above

IMMUNIZATION SCHEDULE:

For Infants

BCG	At birth or as early as possible till one year of age	0.1ml (.05ml until 1 month of age)	Intradermal	Left Upper Arm
Hepatitis B 0 Dose	At birth or as early as possible within 24 hours	0.5 ml	Intramuscular	Antero lateral side of mid thigh
OPV 0	At birth or as early as possible within the first 15 days	2 drops	Oral	Oral
OPV 1,2 , 3	At 6 weeks, 10 weeks & 14 weeks	2 drops	Oral	Oral
Pentavalent 1,2,3	At 6 weeks, 10 weeks & 14 weeks	0.5 ml	Intramuscular	Antero lateral side of mid thigh
Measles	9 completed months-12 months.(give up to 5 years if not received at 9-12 months age)	0.5 ml	Sub cutaneous	Right upper Arm
Vitamin A(1stdose)	At 9 months with measles	1 ml (1lac unit)	Oral	Oral

IMMUNIZATION SCHEDULE:

For Children

DPT booster	16-24 months	0.5 ml	Intramuscular	Antero lateral side of mid thigh
OPV Booster	16-24 months	2 drops	Oral	Oral
Measles 2nd Dose* *	16-24 months	0.5 ml	Sub cutaneous	Right upper Arm
Vitamin A* * *(2nd & 9thdose)	16 months with DPT/OPV booster Then, one dose every 6 months up to the age of 5 years.	2 ml (2lac unit)	Oral	Oral
DPT Booster	5-6 years	0.5 ml	Intramuscular	Upper Arm
TT	10 years & 16 years	0.5 ml.	Intramuscular	Upper Arm