

Civil Hospital Gurgaon	Standard Operating Procedure No 10	Document No CH/GGN/ICU/6
	INTENSIVE CARE UNIT	Date of Issue: 01-01-2016

## SOP 10: INTENSIVE CARE UNIT

### 1.0 POLICY:

ICUs admission and / or discharge is decided by treating physician and as per documented admission and discharge criteria.

Hospital ICUs follows infection control practices as per the policy.

Quality Assurance programme of ICUs is focused on following key characteristics. These key characteristics shall meet the specified acceptance criteria / norms.

### 2.0 PURPOSE:

- To ensure a smooth process for the admission and discharge of patient's according to their condition.
- To meet any unexpected emergency situations
- To have a mechanism for infection control activities in ICU and to monitor the same
- To ensure that individual, and the department through regular assessments using quality indicators maintain high standards of clinical practice. The results of such assessments should be reported to appropriate departmental meetings for evaluation and action as necessary.

### 3.0 ABBREVIATION:ICU – Intensive Care Unit

### 4.0 SCOPE:

Patients with severe condition requiring admission and stable patients who can be transferred to the wards

### 5.0 RESPONSIBILITY:ICU in charge, Infection Control Committee & Infection Control Team

### 6.0 DISTRIBUTION:

Hospital Administration, ICUs and Matron, Infection Control Committee & Infection Control Team

### 7.0 PROCESS DETAILS:


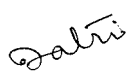

#### 7.1 DESCRIPTION OF THE PROCESS

ICUs admission and / or discharge is decided by treating physician and as per documented admission and discharge criteria given below.

#### Guideline for admission and discharge

##### a) Criteria for admission to ICUs

- Mechanical(additional) support of organ function
  - Cardiac –Acute coronary syndrome / LV dysfunction.
  - Patient required cardiac monitoring

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- Patient requiring support of 2 or more organ system even when this does not include the respiratory system (multi system involvement)
- Potentially reversible serious patient condition
- **Patient requiring 1:3 nursing care**
- Patient requiring continues monitoring.

b)Criteria for discharge from ICUs

- Patient no longer requiring organ system support
- Reversal of initial condition for which patient admitted to ICU
- In case of bed shortage relatively stable patient shifted to HDU (Post-ICU or Post-operative ward) / wards

**Bed Shortage policy:**


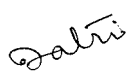

ICU beds are used only for patients who require Intensive care. Admission to ICU are guided by admission criteria as given in document 'admission and discharge criteria'. Patient shall be discharged from ICU as soon as discharged criteria are fulfilled.

In case of bed shortage in ICU, patient requiring Intensive care are managed in Casualty. Every effort is made to arrange a bed for the patient by discharging the patient from ICU who meets the discharge criteria.

However, in case no bed is available, and a patient requiring ICU care has reported at the Casualty of the Hospital, shall enquire where such a facility is available and shall refer the patient to that hospital.

**ACTIVITY AND RESPONSIBILITY**

S.NO.	STEP	RESPONSIBILITY
1.	For new Admissions Nurse on duty coordinates with the Nurse In charge for the availability of the beds. For non-critical admissions For critical patients	Nurse on duty
2.	Priority for bed allocation when there is shortage of beds. Critical patients will be given first priority in allocation of beds (as per triage).	Registration clerk
3.	If no bed available, then patient can be referred to the other hospitals.	Registration clerk
4.	In case the emergency, it is the duty of the doctor on duty to arrange for emergency bed in other hospitals near to referral hospital.	Casualty medical officer/Registration clerk

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5.	Patients are transferred to the ward/ discharged/ as per the condition of the patient.	Registration clerk / Casualty medical officer
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## Infection Control Practices in ICUs

### I. GENERAL PRACTICES:

- A. A conscious-careful attitude must be incorporated into each patient care practice in these high-risk areas to reduce the risk of nosocomial colonization or infection.
- B. While entering the ICU either
  1. The general footwear should be removed and only the approved footwear are to be used inside.
- C. Hand washing is the single most important practice to reduce the nosocomial infection risk. All individuals in the intensive care setting should practice hand hygiene appropriate to the task as given below. Alcohol based hand rubs shall be used before gloving for performing any invasive procedure on the patient. DO NOT use alcohol when the presence of spores (c. difficile, anthrax etc.) is known or suspected. In such cases wash hands vigorously with soap and water.

### **GUIDELINES FOR HAND WASH: SOAP AND WATER**

- Before beginning work and before going home.
- Before direct patient contact.
- Before and after eating.
- After washroom (toilet).
- Before caring for neutropenic or severely immune suppressed patients.
- After contact with a patient's intact skin (eg taking BP, lifting a patient).
- After contact with inanimate objects, including medical equipment in the immediate vicinity of the patient.
- After removing gloves.
- Whenever hands are visibly soiled.
- Whenever hands are contaminated.
- When contact with Bacillus anthracis, c. difficile, or other spores is known or suspected.

C-1 Wash hands using an antiseptic-containing product (or a waterless alcohol –based product) before palpating, inserting, changing or dressing any peripheral venous or arterial intravascular catheter

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C-2 Perform surgical scrub before placing a central venous or arterial catheter (lines that terminate in the heart or in a large blood vessel near the heart)  
After hand decontamination with any product, always allow the skin to dry before donning gloves.

D. **Fumigation:** Complete fumigation is done in the whole ICU per month or as & when required due to any contiguous patient admitted to ICU.

## **II. ISOLATION / BARRIER NURSING PRACTICES**

- A. The barrier nursing practise shall be followed for the patient care. Patients shall be assessed individually to determine any infection that would require additional isolation precautions.
- B. Personal Protective Equipment is available to all the staff in the ICU for the appropriate use. The universal precautions manual can be referred to for the same.

## **III. INTRAVASCULAR DEVICE RELATED INFECTIONS**

### **A. Surveillance**

- i. Palpate the catheter insertion site for tenderness daily through the intact dressing.
- ii. Visually inspect the catheter insertion site if the patient develops tenderness at the insertion site, fever without obvious source, or symptoms of local or bloodstream infection.
- iii. In patients who have large bulky dressings that prevent palpation or direct visualization of the catheter insertion site, remove the dressing (wearing gloves) and visually inspect the catheter site at least daily. If loose, damp or soiled, the dressing may need changing more frequently.
- iv. The time and date of catheter insertion shall be noted down.

### **B. Barrier Precautions During Catheter Insertion and Care**

- i. Wear clean gloves when inserting a peripheral venous or arterial catheter
- ii. Wear maximum barrier protection, including sterile gowns, gloves, mask, and cap and use a large sterile drape when inserting a central line (arterial or venous).

### **C. Selection of Catheter Insertion Site**

- i. Weigh the risk and benefits of placing a device at a recommended site to reduce infectious complications against the risk of mechanical complications (e.g. pneumothorax, subclavian artery puncture, air embolism, catheter misplacement).
- ii. Do not routinely use cut-down procedures as a method to insert catheters.

## **POLICY FOR CATHETER SITE**

Cutaneous antiseptics, catheter site dressing & catheter replacement shall be followed on a regular basis as per following guidelines

### **D. Catheter Site Care (Guidelines)**

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#### D.1 Cutaneous Antisepsis

- i. Although the surface area for prepping is dependent on the size of the extremity, in adult patients, an area 2 to 4 inches in diameter is generally accepted for central lines.
- ii. Cleanse the skin with chlorhexidene or chloraprep as first choice because of its residual effects; second choice, povidone iodine swab. 70% alcohol may be used to prep for peripheral catheters.
- iii. Chlorhexidine cannot be used on children less than two months of age.
- iv. Do not palpate the insertion site after the skin has been cleansed with the antiseptic.
- v. Do not routinely apply topical antimicrobial ointment to the insertion site.

#### D.2 Catheter site dressing

- i. Use either sterile gauze or semipermeable transparent dressing to cover the catheter site.
- ii. Tegaderm is the only transparent dressing approved for use with intravascular devices.
- iii. The use of the biopatch at the insertion under a transparent dressing will reduce bacterial colonization rate.
- iv. The first change of the dressing shall take place after 24hr. The second change shall take place after 48 hrs after the first change. Afterwards, change catheter site dressings every 72 hours routinely or before or when they become damp, soiled or loose.
- v. Replace catheter site dressing when the device is removed or replaced Change dressings more frequently in diaphoretic patients.
- vi. Avoid touch contamination of the catheter insertion when replacing the dressings.

#### E. Replacement of Catheter

- i. In adults replace short peripheral venous catheters and rotate peripheral venous sites every 48-72 hours to minimize the risk of phlebitis. Remove and replace when signs and symptoms of infections are present, i.e. warmth, tenderness, erythema or tenderness at the insertion site.
- ii. Leave peripheral venous catheters in place in children until IV therapy is completed unless complications (e.g. phlebitis, infiltration) occur.
- iii. Replace peripheral intravenous locks every 96 hours.
- iv. The frequency of replacement of peripherally inserted central venous catheters and totally implantable devices are a physician decision.

### **IV. INDWELLING CATHETER**

### **V. INTUBATED OR TRACHEOTOMY TUBE PATIENTS REQUIRING ARTIFICIAL VENTILATION**

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## VI. VISITORS –

A. Hand washing shall be advocated before and after visiting the ICU for the visitors.

## VII. OCCUPATIONAL HEALTH ASSESSMENT

A. An annual health check –up shall be done for the staff.

### **Quality Assurance Programme**

Quality Assurance programme of ICUs is focused on following key characteristics. These key characteristics shall meet the specified acceptance criteria / norms.


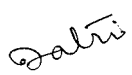

These key characteristics are monitored on monthly basis to ensure that they meet the acceptance criteria. A record for this is maintained in quality assurance register of the department.

S. No.	Key Characteristics	Acceptance Norms / Criteria	Remark
1.	Adherence to admission and discharge criteria	This shall be as per standard document	
2.	Infection control practices	As detailed in documents 'Infection Control Practices (CHG/ICM/01),	Infection control committee shall also monitor this
3.	Biomedical equipment	Equipments of ICUs shall be in best functional condition and calibrated	
4.	Nurse patient ratio	<b><u>1:3 for 24 hours</u></b>	Flexibility shall be considered if relatively stable patients are also there in ICU
5.	Training	At least one training every 3 months on Intensive care practices for staff of ICU shall be organized and conducted	Record of trainings conducted shall be maintained separately
6.	Biomedical waste	In accordance to documents 'Biomedical waste management (CHG/HIC/Doc no 18),	

### **Policy on Vulnerable patients:**

Vulnerable patients include:

- Senior citizens
- Mentally challenged patients
- Physically challenged patients
- Unconscious patients

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- Sedated patients

**7.0 REFERENCES:**

**8.0 RECORDS AND FORMATS:**

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