Intensive Care Unit (ICU) Admission and Discharge Guideline

1 Objective
The Intensive Care Unit (ICU) is operated on the principles of high turnover; ready accessibility as indicated by good clinical practice guideline; and maximal cost-efficiency for valuable nursing manpower. Hence, the average stay in the ICU should be short but sufficient for stabilisation of the cardio-respiratory parameters before a definitive discharge plan can be made. The managing clinicians and the family members must realise this functional nature of ICU such that long-term stay is strongly discouraged.

2 Scope and Definition
Not applicable

3 Responsibility
No applicable

4 Training and Qualification
No applicable

5 Policy Details
5.1 Bed allocation
Beds are allocated based on two categories: elective for high-risk procedures as outlined in section IV and emergency admission as outlined in section V.

5.2 Admission policy
5.2.1 Patients with age above 15 years old and body weight over 30kg can be admitted to the Intensive Care Unit.

5.2.2 Patients are admitted to the Intensive Care Unit by request from their attending doctor and on arrangement with the ICU Senior Nursing Officer or the Nurse in charge at the time of request.

5.2.3 A waiting list may be set up by the ICU Senior Nursing Officer under the supervision of the HKSH Management Committee (HMC).

5.2.4 A Chief Attending Physician has to be assigned if the patient is under the care of more than one doctor.

5.3 Elective admission under the reservation system
5.3.1 ICU bed can be reserved in advance following the attending doctor's order.

5.3.2 ICU bed is reserved on a first come first serve basis.
5.3.3 The following cases will require the signature of the nursing supervisor/ Medical-Superintendent* on the "Record of waiting list" in order to reserve the ICU bed 24 hours in advance:
   a. CABG.
   b. PTCA/PTCS.
   c. Cardiothoracic/open heart procedure
   d. Major surgical procedures: e.g. hepatectomy, craniotomy, Whipple’s operation, oesophagectomy, spinal surgery (this list is by no means exhaustive)
   e. Transfer of ill patients from other hospitals

* Medical Superintendent includes Deputy/Assistant Medical Superintendents

5.4 Emergency admission
Direct admission to ICU should be considered if the patients suffer from acute life threatening conditions who may be benefited from the intensive care (See Attachment 7.1).

5.5 Discharge from the ICU
5.5.1 The following are discharge criteria from the ICU
   a. Underlying Condition improved or resolved
   b. Benefits of monitoring in AICU considered small
   c. Patient with acute respiratory failure extubated and does not require assisted ventilation and in stable condition after observation for period appropriate to his/her condition.
   d. Patients with shock:
      • Cause reversed and stable after taking off inotropes.
      • Stable cardiovascular status with minimal inotropes support for a reasonable period
   e. Condition beyond salvage and might not benefit from intensive treatment in ICU.

5.5.2 For patients in stable condition requiring long-term ventilatory support, they should be discharged to and managed in the Assisted Ventilation Ward instead of ICU.

5.6 Clinician’s admission privilege to the ICU
5.6.1 The Hospital upholds the modern healthcare policy that clinicians managing patients in ICU should have proper training and adequate experience in the management of acute critical diseases in their field.

5.6.2 The usage of special ICU facility is similar to other special facilities in the Hospital such as operating theatre, minimally invasive surgery, etc. Hence, all clinicians who wish to admit patients to the ICU directly under their care should apply for ICU privilege.
5.6.3 ICU privilege would be granted by the HMC after review by the Hospital Privilege Subcommittee with recommendation from ICU Medical Advisory Committee when appropriate.

5.6.4 All clinicians granted ICU privilege must accept, acknowledge, and abide by the Admission and Discharge Guideline for ICU.

5.6.5 Clinicians granted ICU privilege should also, with the help of the ICU staff, explain the Admission and Discharge Guideline for ICU to patients and their family members.

5.7 **Patient's admission to the ICU**

5.7.1 Patients and their family members will be informed by the attending clinicians, with the help of the ICU staff, the Admission and Discharge Guideline for ICU before patient's admission to ICU.

5.7.2 They will be requested to sign a form (Attachment 7.2) upon admission to the ICU acknowledging and confirming that they will abide by the Hospital's Admission and Discharge Guideline for ICU.

5.8 **Review**

5.8.1 The Admission and Discharge Guideline will be discussed, revised and updated every 12 months for improvement and better patient care.

5.8.2 The proper utilisation and adherence to the guideline will be monitored by international scoring system (e.g. APACHE II) on a regular basis. Clinicians will be given a feedback as to the results for their information and for Hospital clinical audit.

6 **Record**

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<th>No.</th>
<th>Record</th>
<th>Retention Period</th>
<th>Retained by</th>
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<td>1.</td>
<td>Understanding on Admission and Discharge Policy of the Intensive Care Unit (ICU)</td>
<td>As per Medical Record Retention Guidelines</td>
<td>In the respective medical record by the Hospital</td>
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7 **Attachment**

7.1 List of Life-threatening Conditions

7.2 理解深切治療部之入住及遷出政策確認書

Understanding on Admission and Discharge Policy of the Intensive Care Unit (ICU)
8 Reference Documents


1. Critical Conditions
   a) Pulmonary System
      (i) Acute respiratory failure requiring ventilatory support
      (ii) Non-ventilated patients
           ● Severe Acute Asthma
           ● Severe Community Acquired Pneumonia with CURB-65 Score ≥3
           ● Acute Upper Airway Obstruction or pending obstruction
           ● Massive haemoptysis
   b) Sepsis and Trauma
      (i) Septic shock not promptly responding to appropriate fluid replacement
      (ii) Severe Sepsis
      (iii) Life Threatening Trauma
   c) Cardiovascular System
      (i) Acute myocardial infarction with life threatening complications
      (ii) Cardiogenic shock
      (iii) Acute pulmonary oedema with respiratory failure and / or requiring
           haemodynamic support
      (iv) Hypertensive emergencies
      (v) Post cardiac arrest
      (vi) Cardiac tamponade with haemodynamic instability
      (vii) Pulmonary emboli with haemodynamic instability
      (viii) Dissecting aortic aneurysm
      (ix) Life threatening haemorrhage
   d) Neurological Disorders
      (i) Acute stroke requires intubation, with CT Scan ruling out conditions for
           immediate neurosurgical intervention with very poor prognosis
      (ii) Coma: metabolic, toxic, or anoxic
      (iii) Encephalo-meningitis with altered mental status or respiratory
           compromise
      (iv) Central nervous system or neuromuscular disorders with deteriorating
           neurological or pulmonary functions
      (v) Status epilepticus
   e) Drug Ingestion and Drug Overdose
      (i) Drug intoxication leading to cardiorespiratory instability.
      (ii) Seizures following drug intoxication
      (iii) Drug intoxication requiring urgent RRT(Renal Replacement
           Therapy)/hemocharcoal perfusion.
   f) Gastrointestinal Disorders
      (i) Life threatening gastrointestinal bleeding
      (ii) Fulminant hepatic failure
g) **Metabolic**
   (i) Acute diabetic decompensation, including diabetic ketoacidosis and non-ketotic hyperosmolar coma
   (ii) Thyroid storm or myxoedema coma
   (iii) Adrenal crises
   (iv) Severe hypercalcaemia with altered mental status, requiring haemodynamic monitoring
   (v) Hypo- or hypernatraemia with seizures, altered mental status
   (vi) Hypo- or hyperkalaemia with arrhythmias or muscular weakness

h) **Miscellaneous**
   (i) Environmental injuries (lightning, near drowning, hypo/hyperthermia)
   (ii) Acute or acute on chronic renal failure for which immediate renal replacement therapy is considered necessary.
   (iii) Major anaphylactic or anaphylactoid reactions
   (iv) Patients who are moderately ill with infections and yet the clinical conditions was so unstable that caring in the Isolation Wards may not be adequate.
   (v) Arterial pH<7.1 or >7.7

2. **Unstable vital signs**
   a) Pulse < 40 or > 150 beats/minute not responsive to treatment
   b) Systolic arterial pressure < 80 mmHg or mean arterial pressure < 60 mm Hg, which does not respond promptly to fluid resuscitation
   c) Diastolic arterial pressure > 120 mmHg
   d) Respiratory rate > 35 breaths/minute
   e) SpO2 ≤ 90%
### Understanding on Admission and Discharge Policy of the Intensive Care Unit (ICU)

**Intensive Care Unit (ICU) Admission and Discharge Guideline**
HKSH V05 / 15 August 2019 Page 7 of 7

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**Understanding on Admission & Discharge Policy of Intensive Care Unit (ICU)**

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**Intensive Care Unit (ICU) Admission and Discharge Guideline**
HKSH V05 / 15 August 2019
Page 7 of 7