

Intensive Care / High Dependency Care

Overview

Our Intensive Care Unit (ICU) / High Dependency Unit (HDU) provides intensive and high dependency care service for patients who are critically ill or require continuous monitoring. It is run by experienced specialists/physicians and a group of qualified nurses. In addition, we provide 24-hour one-stop high quality and advanced care for patients with a fully computerized monitoring system and advanced medical technology.

We work in close collaboration with the Emergency Medicine Centre and Heart Centre to provide emergency service and care for patients with acute diseases, such as sudden heart attack or stroke, etc.

Intensive Care vs High Dependency Care

All ICU nurses are well-trained with ICU qualifications. This is to ensure early detection of patient's condition changes which allow prompt actions of health care professionals. On the other hand, our ICU is well-equipped with high-end medical equipment that provides care to patients who need complicated nursing care and intensive monitoring of vital signs, e.g. after having major operations.

For High Dependency Care, patients require relatively simple nursing care comparing with those in critical illness. However, they still need to be closely monitored on a continuous basis to secure early detection of condition changes.

According to the patient's condition, doctors will decide the level of care needed. It will also be adjusted according to the patient's changes in condition.

When Intensive Care / High Dependency Care is needed ?

Patients are usually admitted to ICU/HDU under any of the following conditions:

- ◆ When close and intensive monitoring of vital signs is needed.
- ◆ When high concentration oxygen therapy is required.
- ◆ When the patient has respiratory failure and requires machine to help him/her breathe.
- ◆ When the patient has undergone a major surgery, thus requiring special monitoring.
- ◆ When the patient has acute illnesses, e.g. heart attack, stroke and acute pulmonary oedema, etc.
- ◆ When the patient has acute renal failure.
- ◆ When the patient has severe infection, e.g. pneumonia and sepsis, etc.
- ◆ When the patient has multiple organ failure.
- ◆ When the patient is in shock.
- ◆ When the patient is unconscious.
- ◆ When the patient has severe infectious diseases, e.g. severe acute respiratory syndrome (SARS), etc.

Common Monitoring, Observation/ Investigation / Equipment and Drugs in ICU/HDU

Monitoring and Observation

The responsible nurse will constantly assess the patient's vital signs including blood pressure, heart rate, oxygen concentration in blood and body temperature, etc. The patient's progress and other signs will also be assessed according to his/her needs, e.g. monitor the central venous pressure, fluid intake and urine output to assess the body fluid level.

Investigation

Doctors will decide if investigations are needed to assess the patient's condition and illness. Common investigations in ICU include:

- ◆ Blood test: complete blood picture, renal function, liver function, glucose, blood gas and culture, etc.
- ◆ Collection of tissue and specimen: sputum and urine, etc.
- ◆ X-Ray: chest and abdomen, etc.
- ◆ Ultrasound scan: heart and abdomen, etc.
- ◆ Computer tomography (CT) scan: brain, thorax and abdomen, etc.

Drug

Drugs commonly used in ICU/HDU include the followings:

Drugs	Purpose
1. Inotrope	To strengthen the heart's muscular contraction and help increase blood pressure which is to treat patients with ineffective heart contraction.
2. Sedative	To ease discomfort brought by life maintaining devices and enhance tolerance of treatment/therapy. Patients on mechanical ventilation support are usually given sedatives.
3. Analgesic	To relieve pain, e.g. wound pain after surgery or pain due to illness.
4. Vasodilator	To treat high blood pressure and improve blood supply to heart, kidney and brain.
5. Antibiotic	To treat infection or act as a prophylactic treatment.
6. Oxygen	Oxygen concentration will be titrated according to the patient's breathing condition and blood gas results.
7. Other medications that require close monitoring, e.g. Antiarrhythmic and Thrombolytic, etc.	Antiarrhythmic is used to control heart rate or rhythm so as to improve heart function. Thrombolytic is used to dissolve blood clot so as to improve blood supply to affected organs.

Equipment

Following is a list of commonly used equipment in ICU/HDU, the purpose of each is also detailed:

Equipment	Purpose
1. Multifunction Monitor	<p>It provides continuous vital signs monitoring, such as ECG, heart rate, blood pressure, respiration rate and blood oxygen saturation, etc.</p> <p>It is connected to the central monitor in the nurse station where specialists can obtain and analyze patient's data constantly.</p>
2. Ventilator	It delivers oxygen through a tube to the patient's lung directly in order to improve breathing.
3. Continuous Positive Airway Pressure (CPAP)	It assists the patient in breathing by providing positive pressure during inspiration so that he/she can breathe easily and effectively.
4. High Flow Oxygen Machine	It provides stable high flow oxygen for the patient with difficulties in breathing.
5. Infusion Pump / Syringe Pump	It can constantly regulate the fluid volume through an intravenous catheter to the patient.
6. Feeding Pump	It can constantly regulate the feeding volume to the patient through a nasogastric tube directly connected to the stomach in order to facilitate absorption.
7. Portable Monitor Devices	It provides continuous support and close monitoring of the patient's vital signs, such as multifunction monitor, ventilator and End Tidal CO ₂ (ETCO ₂), etc., while he/she is being transported to other departments for investigations.
8. Continuous Renal Replacement Therapy (CRRT)	It provides dialysis to the patient with acute renal failure in order to correct the electrolyte balance and remove excessive fluid in the body.
9. Intra-Aortic Balloon Pump (IABP)	It provides support to the patient with heart failure or those who have undergone open heart surgery.
10. Hypo-Hyperthermia Machine	Clinical researches reveal that Therapeutic Hypothermia may be beneficial to the patient after cardiac arrest. It can reduce long-term damage of brain and may improve its neurological function.

Frequently Asked Questions

I always hear different alarms from the machine during visiting hour, what is that for?

When there are movements of the patient's body or his/her vital signs have changed a bit, the alarm will be activated to alert the health care professionals. In addition, the central monitor is connected to nurse station so that the nurses can obtain and analyze patient's data promptly. Please feel free to ask if you have further enquiries.

Will the costs of staying in ICU/HDU be very high?

We understand that patient's family would be worried about the patient's condition, as well as the charges of such advanced medical service, when their loved ones are admitted to ICU/HDU. Therefore, we provide different minimum charge packages to cater patients' needs. We will help choose the most suitable one for the patient so as to allow the patient and their family to have a general estimation on the expenditure. You are welcome to obtain information about charges from our nurses.

If you have any questions, please do not hesitate to ask our doctors or nurses. We are here to support you all the time. On the other hand, our doctors can refer the patient to other suitable health care facilities to continue treatment if needed.

*According to the guidelines of Department of Health, health care providers should explain to the patient and/or his/her relatives on the hospital fee.

How long does the patient have to stay in ICU/HDU?

Intensive care specialists will assess the patient's conditions continuously and provide him/her the most suitable care. When the patient's conditions stabilize, he/she will be transferred back to general ward for continuing care. Each patient's recovery progress varies and the estimated duration of stay in ICU/HDU differs. Patient's doctor will maintain close communication and keep you updated to the treatment plan and the patient's condition. Therefore, please designate one key contact person and leave us your phone number for emergency contact.

Why does ICU/HDU have strict visiting rules?

ICU/HDU is equipped with numerous equipment and patients are in critically ill or unstable conditions who need special care and complicated nursing procedures. Adequate rest is extremely important to the patient's recovery. Therefore, strict rules are enforced to minimize disturbance to the patient. We hope that family members can understand such arrangement. In addition, visitors should wash their hands and wear surgical masks before entering the room in order to minimize risks of cross infection.

What are the general rules / guidelines in visiting ICU / HDU?

- (i) Daily visiting hours: 10 am - 12 noon and 5 pm - 8 pm, except in the event of doctors' rounds and nursing procedures.
- (ii) Maximum of 2 visitors are restricted to patient bedside each time and children under 12 years are not allowed.
- (iii) Please notify our nurse prior to entering HDU / ICU.
- (iv) Please keep your voice down and switch off your mobile phone.
- (v) Please keep your hands off from any equipment.
- (vi) Please do not bring any flowers or plants.
- (vii) Please do not smoke.

Produced by Union Hospital

The above information is for reference only, please enquire your physician for details
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification