Information for relatives of patients in the
Mater Misericordiae University Hospital
Critical Care Department
(ICC & HDU)
The Critical care team
Consultant Intensivist – An Intensivist is assigned to both ICU and HDU on a weekly basis. They are responsible for leading and directing the critical care team who provide the medical expertise and attention to patients admitted to our care.

Clinical Nurse Manager (CNM2) – A CNM2 leads each 12 hour nursing shift (day and night) in both ICU and HDU.

Staff nurse - Approx 150 staff nurses work in the Critical care area. Within ICU the nurse patient ratio is 1:1 and within HDU the ratio maybe 1:1 but more commonly is 1:2. The staff nurse caring for your relative will on each shift introduce themselves to you and update you on the daily plan of care for your relative.

Health Care Attendant - The nursing staff are supported in the care of your relative by our team of health care attendants, present on every shift in both ICU and HDU.

Physiotherapist – the physiotherapists within the critical care complex are highly involved with the direct care of your relative, providing important assistance to improve and progress breathing efforts and mobilisation.

Other professions within the critical care area providing essential additional support for the care of your relative include the speech and language therapist, dietician and pharmacist. The Critical care area is further dependent on a wide range of services; those you may meet include our secretarial staff, house keeping staff, catering and portering services.

Reasons for admission to our Critical Care:
Planned (usually post surgery) - needing to come to critical care may be planned following large surgery such as coronary artery bypass graft, large blood vessel repair or any major surgery where a period of intensive post operative care is required to help a patient fully recover from surgery

Unplanned - Admission via our Emergency Department, from another referring hospital, or patients who are already in the hospital and becoming very unwell. Usually patients come to critical care when they need extra help with their breathing, blood pressure support or help with the work of their kidneys. To give this extra help to patients we often use specialised equipment and monitoring which is not available on a general ward.
Visiting patients in Critical Care:

Visiting times are 14 00hrs – 16 00hrs and 18 30hrs – 20 00hrs

We recognise that facilitating families to visit their loved one in ICU and HDU is an integral aspect of the care that we provide to patients within our department. However, due to the severity of our patients’ illness, in general we do like to adhere to visiting times and allow only two visitors at a time, usually limited to include only close family and significant others.

Your relative will be cared for in a single room to provide privacy, with glass partitions to support nursing observation. The level of support necessary for patients in critical care necessitates that there is a great deal of technical and monitoring equipment in each room which may be noisy at times especially when alarms sound. The nurse looking after your relative will attend to them and can explain any aspects of the room environment to you, if you so wish. Please remember to turn off your mobile phone when you visit as it can interfere with the monitoring equipment.

We apologise in advance that on occasion you may experience a delay before you are admitted to visit your relative, as at times nursing care procedures, treatment procedures, x-rays or rounds may interfere with your planned visit. While you are waiting to visit your relative we would ask that you use the visitors’ room and not wait on the corridor. This can impinge on the movement of patients to or from theatre, our scanning department or ward transfers.

Patient property
While in the HDU/ICU complex we ask that property be kept to a minimum. A wash bag with toiletries, dentures and reading glasses are all that is required. We do not have the facilities to care for personal property in the unit. If your relative was on a general ward prior to admission to the critical care area their property will be stored on that ward. If your relative was admitted via a preoperative ward or our emergency department you will be asked to take their belongings home. At all times please be careful and attend to your own belongings (coats/bags) when visiting and residing in our waiting room.

Social worker
If you would like advice from a social worker please speak to the nurse looking after your relative or speak to the nurse manager in charge of the shift and we can arrange an appointment for you.

Chaplaincy and Pastoral Care
A Chaplaincy representative visits critical care on a daily basis. If you believe your relative would like a visit from the chaplain, this can be easily arranged by the staff nurse assigned to the care of your relative. Our Chaplaincy team are from the Roman Catholic tradition but they liaise with other religious denominations. Should you wish a visit from a minister of your own faith our chaplains will look to fulfil your request. If you would like your own spiritual representative to visit, this will be facilitated.
Accommodation for Relatives
Limited accommodation may be available for family of patients who have experienced an unexpected critical illness or a critical deterioration in condition, please speak to the nurse manager in charge of the shift. A list of phone numbers for local accommodation is also available from the nurse manager on request.

Toilets
Toilets for relatives are available in the ICU/HDU waiting room

Complaints
If you have any concerns please talk to the nurse manager in ICU or HDU and we would hope that we can address any problems that you have. If this is not possible we will give you information with regard to the official hospital complaints procedure.

Obtaining information about your relative’s condition:
We know that having a family member admitted to our critical care can be a very frightening and upsetting event. We will at all times strive to ensure that you are kept informed of your loved ones condition and progress during their time in our critical care area. The nurse looking after your relative will be happy to update you on a daily basis of their progress. If you would like more detailed information you can ask to speak to a member of the critical care medical team on duty. If you wish a family meeting this can be arranged with the primary care team looking after your relative and the Intensivist in charge of ICU or HDU. This type of family meeting is typically organised by a senior member of nursing staff or the nurse manager in charge of the unit. If you are part of a large family we request that you designate one or two members as spokespersons on behalf of the family. We believe this ensures better continuity and clarity for you with regard to the information provided or any issues that may be discussed with you as a family.

Sometimes, even after receiving information from us it is hard to take it in or to remember what we have said. For this reason we have provided a short explanation of the frequently used patient support measures that you may see utilised for your family member in our critical care.
Support therapies that may be employed for patients in ICU/HDU:

**Respiratory (breathing) support**
Breathing support is needed when the lungs are unable to get enough oxygen into the body or unable to clear a waste product called carbon dioxide from the body. This can happen when someone has a bad lung infection, particularly where a person already has a problem with long standing disease to the lung. Sometimes people need help with breathing if they are unconscious after a serious accident or illness, a stroke or poisoning from a harmful substance such as too much pain medication. If a patient requires prolonged breathing support we may need to place a tube called a tracheostomy. This tube is inserted through the persons throat (an incision is made) and can be connected to a breathing machine and also used to clear secretions easily from the lungs.

**Oxygen therapy (HDU+ICU):** This is given through a plastic mask which sits on the person’s mouth and nose. It is not painful and is good for helping people who have a low oxygen level. It will not help patients whose breathing muscles are getting tired and where too much carbon dioxide is collecting in the body.

![Figure 1. Oxygen mask](image)

**Non-invasive ventilation (HDU+ICU):** This involves placing a tight mask over the person’s mouth and nose. The mask is connected by tubing to a small machine that helps the person to breathe and it can increase oxygen levels and lower the level of carbon dioxide in the body. The patient must be conscious when using this mask which is more uncomfortable than an oxygen mask. Frequently, patients find it claustrophobic as the mask requires to be quite tightly fitted to work properly.
Invasive ventilation (ICU): This involves putting a breathing tube (endotracheal tube) through the person’s mouth and into the lungs. The tube is then connected to a machine (ventilator) which either supports the breathing or does all the breathing for the patient. For this type of breathing support the patient is kept sedated most of the time as the tube is very uncomfortable and also the patient is unable to speak.
Tracheostomy (ICU/HDU): If it is expected that your relative needs to stay on a breathing machine for more than a few days you may be asked to discuss the placement of a tracheostomy tube. This tube as mentioned earlier is inserted into the throat and enables the same breathing support for the person as the endotracheal tube but is more comfortable. If it is long term (days/weeks) a speaking valve which enables speech, can be fitted to the tracheostomy as the patient is weaned from the breathing machine.

Extracorporeal life support - ECLS / Extracorporeal membrane oxygenation - ECMO (ICU): This treatment is for the patient whose lungs are failing to respond to management with an endotracheal tube and ventilator. Very large plastic tubes are inserted into major blood vessels to allow blood to be taken out of the person’s body and into a machine which carries out the work of the lungs by removing carbon dioxide, providing oxygen and then returning the blood back to the patient. This supports the patient and allows time for the damaged lungs to recover. The use of ECLS is considered only when all other treatment options have been deemed unsuccessful in the support of a critically ill patient and its utilisation requires a very high degree of both medical and nursing expertise. The patient is generally supported for approximately 2 weeks with ECLS.
**Haemodynamic (heart function) support**
Support for heart function is needed when a person’s blood pressure is very low and not high enough to maintain enough blood flow to important organs in the body such as the brain, kidney, liver and gut and can result in serious damage to these organs. It is important to increase blood pressure and improve blood flow before permanent damage is caused resulting in failure of that organ e.g. kidney failure where the kidney can no longer get rid of waste products or fluid.

**Fluid and Inotrope support (HDU+ICU):** Extra fluid is often the first treatment for low blood pressure. A plastic tubing (intravenous drip) is placed in the patient's hand or arm in order to infuse the fluid. The process of putting in the drip causes minimal discomfort to the patient.

If extra fluid does not improve blood pressure we consider giving strong drugs (vasopressors or inotropes) which improve the activity of the heart and the blood supply to the body. These medications however, must be given through a large drip (central line) that is placed into a large vein either in the neck, chest or groin. The process of inserting a central line is uncomfortable for the patient but we will ensure that local anaesthetic is administered to the insertion area and adequate pain relief is given to the patient.

![Figure 6. Inotropes administered through syringe drivers (Right side of bed)](image-url)
**ECMO / ECLS (ITU):** As explained under respiratory support. ECMO / ECLS option can also be used to support a failing heart by taking over the work of the heart and mechanically circulating oxygenated blood to the body. The patient is generally supported for approximately one week while waiting for the heart to recover or time to consider other treatment options (Figure 5).

**Intra aortic balloon pump – IABP (ICU):** If the heart is badly damaged or very weak after a heart operation or heart attack an IABP may be inserted to reduce the amount of work the damaged heart has to do. This will improve the ability of the heart to pump blood around the body. The insertion of an IABP is a complex procedure and once it is inserted it requires the patient to lie semi-upright in bed attached to a medium sized machine and maybe moderately uncomfortable for the patient.

**The VAD - ventricular assist device (ICU):** is a mechanical pump that takes over the function of one or both ventricles of the heart. It is a temporary device designed to help the heart pump enough blood to the body. To accomplish support, blood flows from the heart to the VAD (pump), and then back to the body. The patient may have a left ventricular assist device (LVAD), right ventricular assist device (RVAD) or biventricular assist device (BiVAD). One or two pump(s) are either resting on your abdomen (external) or implanted inside your body (implantable). It is utilised most commonly in two instances
a) The VAD is frequently employed as a “bridge” to heart transplant surgery, increasing a patient’s survival time until a heart transplant can be carried out.

b) In a small number of instances the VAD may be inserted as destination therapy or the only available treatment for the patient.
Renal (kidney) support
Frequently, very ill patients who come to our critical care area are admitted with, or go on to develop a kidney injury or failure. When this happens the patient may not produce any or enough urine. This causes a lot of excess fluid to accumulate in their body and their limbs may become swollen and they may find it difficult to breathe. Also a person with a kidney injury or failure may feel very sick. Support measures for the kidney include:

Urinary catheter / diuretics (HDU+ICU): In this situation a plastic tube is inserted into the bladder to ensure any urine produced is drained and measured so that we are aware when urine drainage is not adequate. Drugs (diuretics) to increase or stimulate urine output and kidney function may be given to the patient if needed and the affects of these treatments and kidney function are monitored by daily blood tests.

Dialysis - intermittent (HDU+ICU): If the blood tests assessing kidney function are not improving and a patient is producing very little or no urine, intermittent dialysis may be considered. In this situation a large machine takes over the work of the kidneys, blood is removed from the body cleaned, filtered, water removed and then returned to the body. Dialysis requires the insertion of a very large line (bigger than a central line) inserted into a vein in the neck, chest or groin.

Dialysis – continuous (ICU): If a patient is very unstable, their blood pressure very low and the blood tests assessing kidney function very poor they may require continuous dialysis. For this treatment the patient will need to be cared for in ICU if they are very unwell and also requiring a high level of breathing support and blood pressure support.

Figure 9. Continuous Dialysis system
**Nutritional (feeding) support**

Feeding provides fluid which prevents dehydration and provides calories and energy which are important to the body to carry out its normal functions and important for healing and immunity. Sometimes people are unable to take food by mouth following major surgery or severe illness. This can also occur with an inability to swallow properly which can be due to muscle weakness from a neurological condition (stroke) or frequently, in critical care having an endotracheal tube or tracheostomy placed.

**Naso gastric feeding (HDU+ICU):** This is a narrow plastic tube that is inserted through the nose and into the stomach. Liquid feed is then given continuously through the tube at a set rate controlled by a small machine. The tube can be a little uncomfortable at the back of the throat but most people accept it reasonably well. If long term artificial feeding is contemplated because the patient is unable to safely take food by mouth a PEG (percutaneous endoscopic gastroscopy) may be considered. This involves the placement of a plastic feeding tube directly into the stomach through a small incision in the abdomen which is then clipped in place.

![Figure 10. Nasogastric feeding tube inserted through patients nose](image)

**Parenteral nutrition - PN (HDU+ICU):** This type of nutrition is commonly considered where a person has had major abdominal surgery or injury and is not expected to be able to take nourishment via the gastrointestinal system (mouth/NG/PEG) for a prolonged period of time. Nutrition in this case is delivered via a central line similar to the line inserted for the delivery of inotropes for blood pressure support.

![Figure 11. Parenteral nutrition bag](image)
**Pain Relief and sedation**

**Mild and moderate pain relief/sedation (HDU+ICU):** simple pain relief that has mild effects on pain but with few side effects and sedation that alleviates anxiety and reduces awareness of unpleasant interventions / treatments

**Strong pain relief/sedation (ICU):** the side effects of this pain relief reduces level of awareness, ability to interact and ability to breathe. Large amounts of sedation results in a loss of awareness of discomfort and surroundings and the patient is therefore sedated.

**Lastly**

We hope that your experience of our critical care area is positive and that the information provided in this leaflet and online will assist you during this time in some small way. It is difficult to cover all aspects of care with respect to your relatives’ time with us. Please feel free to approach us at any time and we will do our best to address any concerns or suggestions that you may have.

Staff of Critical Care (ICU/HDU)