

The Alfred Hospital Intensive Care Unit

AlfredHealth

**Information about
procedures and treatments**



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The Alfred Hospital Intensive Care Unit

The Alfred is a quaternary referral hospital affiliated with Monash University that has a record of outstanding patient care and patient outcomes. Our processes ensure that we attain these outcomes with minimal complications to our patients.

We regularly monitor our performance (compared to that of other similar hospitals throughout Australia) and adjust our practice in order to continue to deliver the very best care possible to our patients.

This booklet is designed to give you information about the Intensive Care Unit (ICU) to assist you while you or your loved one is a patient in the Unit. It details some of the procedures performed in ICU and explains the way we communicate with a patient and their loved ones. It is important to protect the rights of our patients when decisions are made about their care. The information in this booklet is correct as of May 2016.

We welcome any questions or comments that you or your relatives may have. If you wish to discuss your relative's condition at any time, please ask the ICU nursing staff to contact the ICU senior registrar or consultant.

For further information and to see an electronic version of this booklet please visit our website:

www.alfredicu.org.au

Mission Statement

As intensive care specialists, our primary responsibility is to provide safe, appropriate, high quality care and comfort to all Alfred patients with any form of critical illness and to support those who care for them.

Clinical care

Our aim is to provide best possible patient outcomes through the practice of excellent, evidence-based, compassionate and consistent team-oriented intensive care medicine. In every situation, the wishes of the patient and the hopes of those around them will be balanced with the likelihood of success and suffering. Our practice will include dignified end-of-life care if treatment becomes futile.

Communication

To keep our patients and their relatives well-informed. To communicate effectively with our colleagues and other hospital staff.

Support

To build positive relationships within and outside our department. To support our colleagues in our clinical and academic pursuits so that we can attract, inspire, and nurture diverse and committed staff who wish to continually improve their skills and knowledge.

Teaching

To facilitate critical care teaching of all intensive care and hospital staff. We wish the Alfred to be the premier place for Intensive Care training in Australia.

Research

To maintain the Alfred Intensive Care as an international centre of excellence in research. To encourage and support a broad range of research activities. To present regularly at critical care conferences nationally and internationally.

Management

To deliver best-practice, cost-effective, responsible intensive care with wise management of human and material resources.

Quality Assurance

To continually improve our performance by regular review of all aspects of service so that we change our strategies if required. To set both long and short-term goals on an annual basis which we strive to accomplish by working together.

Values

To apply the following values to all aspects of our work: compassion, honesty, commitment, respect of personal beliefs and differences.
To remain open-minded to new ideas and approaches.

The Alfred Hospital Intensive Care Unit

Location: 1st floor Main Ward Block
The Alfred Hospital
Commercial Road
Melbourne, 3004

General hospital enquiries:

Please contact The Alfred Hospital Switchboard
Telephone: 03 9076 2000

General ICU enquiries (including information about patients)

Please contact ICU Reception
Telephone: 03 9076 0700
Facsimile: 03 9076 2835

ICU office and administrative enquiries

Please contact Ms Janine Dyer (ICU administration)
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Websites

Alfred Hospital
www.alfred.org.au

Alfred ICU
www.alfredicu.org.au



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Professor Jamie Cooper

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Wendy Grant

Amanda Burvill

Workforce and Education

Quality and Risk

Hyperbaric / ICU (Acting)

The Alfred Hospital Intensive Care Unit

The Organisation of the ICU

There are many staff involved in the care of patients within the ICU. These include nurses, doctors, physiotherapists, dietitians, pharmacists, speech therapists, orthotists, occupational therapists and social workers. There are also many other non-clinical staff such as receptionists, ward support, cleaners, technicians, data collectors, researchers, clerks and secretarial staff without whom the ICU could not function.

Most patients in the ICU have a nurse allocated per shift to look after their care exclusively. Sometimes one nurse may care for 2 (or more) patients if their needs are less acute or if their condition is improving.

The ICU is divided into 4 sections:

- General ICU
- Cardiothoracic ICU
- Trauma ICU
- Surgical ICU

Each area is supervised by an intensive care specialist who is in charge of all aspects of your/your relative's care. There are a number of junior intensive care doctors attached to each area, many of whom are themselves training to become specialists in intensive care medicine.

The Alfred Hospital Intensive Care Unit

Communication

Soon after your relative is admitted to ICU, the staff will discuss the reason for admission, the risks and outcomes that can be expected, and the nature of the treatment that will be provided. You will be given an opportunity to ask questions about the treatment and about the role of the family in decision-making processes.

Admission to ICU can be prolonged and the medical and nursing staff will endeavour to keep you informed of your relative's progress. It is often beneficial to schedule formal discussions if you have questions.

Intensive care treatments are not always successful and are not appropriate for all patients. If medical staff consider that a favourable outcome is not possible, this will be discussed with you. In these circumstances, following a detailed explanation of treatment options and an adequate time for discussion, a decision may be taken either not to initiate or to withdraw certain treatments that are not in you/your loved one's best interests.

Medical Procedures and consent

ICU treatment is complex and will frequently involve specialised treatments and procedures, not available or possible in the general wards. All procedures involve some risk to the patient. The procedures and treatments are only undertaken when the benefits are thought to outweigh the risks. This booklet provides information on the majority of these procedures.

Most procedures performed in ICU need to be performed in a timely manner. The number and type of procedures required will depend on the illness severity and length of time in ICU. For some procedures (e.g. **tracheostomy**) you may be required to sign a specific consent form.

The medical and nursing staff will be happy to discuss any concerns you may have about procedures and treatments performed in ICU. Wherever possible and practical, procedures will be discussed with you prior to the procedure being performed.

These documents provide information about procedures and terms used during a patient's stay in ICU. Please ask for more information from your nurse or doctor.

Introduction

Procedures and Treatments in ICU

In general, all medical procedures have the potential to cause complications. This is particularly so where a medical device is inserted into the body – either through the skin into the blood stream or a body cavity, or into the gastrointestinal tract. The complications may arise at the time of the insertion, or may develop after the device has been in place for some time.

These complications can include:

- bleeding
- malposition
- infection
- discomfort
- perforation of or damage to adjacent parts of the body

We take all possible precautions to minimise these risks, including extensive educational programs, checklists and adherence to best-practice guidelines. Procedures are only undertaken when the expected benefits of the intervention outweigh the risks of the procedure. Our procedures are supervised by experienced staff, and patients are closely monitored for the possibility of complications – both during insertion and throughout the time that the device is in place. All adverse events are reviewed, and compliance with national and international standards is regularly audited.

The following pages detail some of the more common procedures that may be undertaken during ICU admission and some of the potential problems that may be associated with them.

Art Line

Also known as:

Arterial line or intra-arterial catheter

What is an Art line?

An art line is a thin plastic tube inserted into an artery to continuously measure the blood pressure. Regular blood tests are taken from it – most commonly to measure the levels of oxygen, carbon dioxide and acid within the blood.

How is it put in?



Using local anaesthetic, the doctor inserts a needle and then the art line into the artery. The needle is removed. It is secured in place with a stitch. Although usually placed in the wrist, an art line may be positioned at the elbow, groin or foot. They commonly stay in place for several weeks. You may notice the fluid within the art line pulsating slightly. This is normal and is due to pulsations within the artery.

Are there any risks?

Art lines are generally very safe, although they may occasionally require multiple attempts for insertion. They may damage the artery or cause clots to form in the artery; either of these can temporarily impair blood supply. Very rarely, this lack of blood supply may cause the death of downstream tissue.

Balloon Pump

Also known as: Intra-Aortic Balloon (Counterpulsation) Pump or IABP

What is a Balloon Pump?

A balloon pump is a long inflatable tube positioned in the aorta, the main blood vessel which runs out from the heart. It beats in time with the heart and aids the pumping of blood to the rest of the body. It also helps supply additional blood and oxygen to the heart itself.

How is it put in?

A doctor inserts the balloon via a blood vessel in the groin. It is attached to a console which sits at the end of the bed. Helium gas is used to inflate the balloon in time with the heart.



Balloon Pump

Are there any risks?

A balloon pump may damage the aorta or the vessel into which it was inserted or impair blood supply to other parts of the body such as the leg or intestines. There is also a small risk of blood clot formation and gas leakage. A balloon pump is only used when absolutely necessary and is constantly monitored for complications.

BiPAP

Also known as:

Bilevel Positive Airways Pressure

Non-invasive ventilation or NIV

Related & similar therapies are:

Continuous Positive Airways Pressure or CPAP

What is BiPAP and why is it used?

When patients cannot breathe adequately, a BiPAP machine may provide additional oxygen and assistance with breathing. This may reduce the need to insert an ET tube (intubate). BiPAP is usually applied using a tight fitting mask to the face or nose. BiPAP is used within ICU and sometimes elsewhere within the hospital.

Are there any risks?

The most common problem with BiPAP is that some find it too uncomfortable and cannot tolerate it. The mask can cause pressure areas on the face. As with ventilation via an ET tube there is a risk of chest infection. Despite using BiPAP some patients deteriorate and need to be intubated. Patients on BiPAP are closely monitored for complications or any signs of deterioration.



Bronchoscopy

Also known as:

A Bronch

What is a Bronchoscopy?



A doctor performs a bronchoscopy by passing a flexible telescope into the patient's windpipe (trachea). This may be needed when a patient has pneumonia, when there is a blockage in the airways or to aid the placement of other tubes (e.g. a tracheostomy) into the trachea. The doctor may take samples from the airways for analysis. Occasionally a small piece of lung tissue (biopsy) is taken.

In ICU bronchoscopy is usually performed through a breathing tube (ET tube or tracheostomy). Sedation is given during the procedure.

Are there any risks?

A bronchoscopy may cause a deterioration in a patient's oxygen level or a small amount of bleeding in the airways. If a biopsy is taken there is a small risk of damage to the lung. There is a risk that a bronchoscopy may cause infection in the lung. There is a small risk of side effects to the medications used for sedation during the procedure.

CVC

Also known as: Central venous catheter
Central line or CVP line

What is a CVC and why is it put in?

A CVC is a thin plastic tube inserted into a large vein for the administration of intravenous medications and to monitor pressures within the body. Under sterile conditions a doctor inserts the CVC using a needle into either the neck, beneath the collar bone or in the groin. The needle is removed after the line has been placed. The CVC may stay in place for several weeks but will be removed as soon as it is no longer required.

Are there any risks?

CVCs sometimes take multiple attempts to insert. The most common significant complication of CVCs is infection. During insertion, there is a risk of the needle damaging other structures such as arteries or nerves, and CVCs inserted in the neck or under the collar bone may also occasionally puncture the lung.



A subclavian CVC

CVCs used in this intensive care unit are coated with antibiotics and special dressings are used to minimise the chance of infection.

Dialysis

Also known as: (& similar therapies)

Haemodialysis, Haemofilter or Filter, Haemofiltration, Haemodiafiltration
(Continuous) Renal Replacement Therapy
Continuous Veno-Venous Haemofiltration
CVVHD, CVVHF, CVVHDF, RRT or CRRT

What is Dialysis and why is it used?



A femoral vas cath

Patients often require a dialysis machine when there is kidney failure or abnormal levels of acid and salts within the blood. It is also occasionally used to treat some drug overdoses. A doctor inserts a vas cath (see Vas cath) into a large vein in the neck or groin. Blood circulates through the dialysis machine, toxins are removed and the blood then returns to the body. As patients recover, the kidney function often improves and the dialysis machine can be stopped.

Are there any risks?

A patient's blood pressure may drop temporarily when dialysis is started. The dialysis machine may reduce the levels of some blood cells. It may also lead to a reduction in body temperature. The blood usually needs to be thinned to allow successful dialysis, and this too carries a small risk. Other complications are quite rare.

A dialysis (or haemofiltration) machine



ECMO

Also known as:

Extra Corporeal Membrane Oxygenation
Extra Corporeal Life Support or ECLS

What is ECMO and why is it used?



Femoral ECMO tubing (cannulae)

ECMO is only used in the sickest of intensive care patients when the heart and/or lungs are failing to respond to other treatments. Under sterile conditions a doctor inserts tubing into blood vessels in the neck, the groin or directly into the blood vessels near the heart (through the front of the chest in the operating theatre). Blood is drawn out of the body and into the ECMO machine where oxygen is added to it. The blood is then returned either into an artery or a vein. This keeps a patient alive while allowing time for the heart and/or lungs to recover.

Are there any risks?

Where ECMO tubing is inserted, there is a risk of damage to the blood vessels causing bleeding. Impaired blood and nerve supply to the legs, damage to blood cells and the development of blood clots are also recognised complications. The blood needs to be thinned to minimise the risk of clotting. This may result in bleeding at other sites in the body. ECMO is only used when there are no other alternatives. It is constantly monitored for complications. The nurses who look after patients on ECMO have extra ECMO-specific training in addition to their ICU training.



ECMO pump and 'oxygenator'

Enteral Feed

Also known as: Nasogastric or NG Feeding
Orogastric or OG Feeding

What is Enteral Feed and why is it used?

Enteral feed is a liquid form of nutrition which is passed into a patient's stomach via a plastic tube inserted into the nose (NG tube) or mouth (OG tube). Patients who are attached to ventilators are not able to eat food the normal way. Most intensive care patients are fed in this way.

Are there any risks?

Enteral feeding rarely causes problems. However NG tubes may lead to sinus infection. There is a possibility of incorrect tube placement. Enteral feeding may increase the risk of vomiting, diarrhoea and possibly pneumonia (while on a ventilator). Some patients may not absorb enteral feeds; in this case, TPN may be used (see TPN)



A bag of enteral feed attached to an infusion pump

EVD

Also known as:

External Ventricular Drain
Intra-Cranial Pressure (ICP) Monitor
Similar & related devices: Codman catheter

What is an EVD and why is it used?

An EVD is placed in a patient's head to measure the pressure within the brain and to sample & drain spinal fluid (cerebro-spinal fluid or CSF). They are used in patients with severe head injury, brain haemorrhage or after neurosurgery. The EVD is inserted under strict sterile conditions by a neurosurgeon either in the ICU, emergency department or in the operating theatre. A Codman catheter also measures ICP but is not able to drain CSF. When it is no longer needed the EVD (or Codman catheter) is removed.



Are there any risks?

There is a risk of bleeding in, or damage to, the brain from the EVD/Codman. There is a risk of infection developing within the fluid around the brain. The EVD may become blocked or dislodged. An EVD/Codman is only used when absolutely necessary and is constantly monitored for complications.

ICC

Also known as:

Intercostal catheter
Chest drain
Pleural drain
Mediastinal/pericardial drain

What is an ICC?



An ICC collection drain

Patients who have had chest or heart surgery, or trauma may need a tube (an ICC) inserted through the chest wall to drain fluid or air from around the lung (or heart). An ICC may also be required to drain collections of fluid from the chest in other circumstances (such as pneumonia).

Every ICC is inserted under strict sterile conditions by a doctor. It may be inserted while the patient is in the emergency department, operating theatre or intensive care unit. It is stitched in place underneath the armpit or at the base of the breastbone. The ICC is connected to a drainage bottle or collection system positioned at the side of the bed. You may see fluid in the tubing swinging or bubbling.

Are there any risks?

An ICC may cause damage to the lung or other parts of the body during insertion. Chest X-rays are done after insertion to check that they are in an appropriate position. The ICC can cause pain, and may occasionally become blocked. The ICC and the patient are constantly monitored for complications. They are removed when they are no longer necessary.

Inotropes

Also known as:

Vasopressors, vasoconstrictors
Vaso-active drugs
Inoconstrictors and inodilators

What are Inotropes and why are they used?

Inotropes are drugs given to increase the blood pressure and support the function of the heart. They are given via a CVC (see CVC) into a large vein. Different types of inotrope (eg adrenaline, noradrenaline, milrinone) are used in various situations. Inotropes are commonly used in the ICU.

Are there any risks?

Different inotropes have different effects and side effects. In high doses some may impair blood supply to fingers or toes. Other inotropes may cause irregular heart rhythms or increase the level of acid or sugar in the blood. They may cause the blood pressure to rise too high.



Infusion pump used for delivering inotropes

Intravenous cannula

Also known as:

IVC, IV cannula
Drip

What are Intravenous cannulas and why are they used?

An intravenous cannula is a small, soft piece of hollow tubing which is inserted into a vein, usually in the back of the hand or the arms, which is then used to administer intravenous medications and fluids. They are used as an alternative to CVC (see page on CVC) when the latter is not required.



Are there any risks?

Intravenous cannulas can take several attempts to insert. The main risk is infection, and they are routinely changed every few days to prevent this. They can cause inflammation or blood clots to form in the vein in which they are inserted. There may be bleeding when they are removed.

Intubation

Also known as:

Insertion of a breathing tube
(an endo-tracheal tube, ET-tube or ETT)

What is Intubation?

If a patient is unconscious or has severe breathing difficulty, then an ETT is placed into the windpipe (trachea). This is then connected to a ventilator. The ventilator provides assistance with breathing and additional oxygen.

How is it done?

A general anaesthetic is given and a doctor inserts an ETT into the trachea via the mouth (or occasionally nose). Sometimes the procedure is done under local anaesthetic using a flexible telescope (see Bronchoscopy). A small cuff is inflated to create a seal to stop air leaks and stop mouth secretions going into the lungs. Once the ETT is confirmed to be in the right place it is secured with a special holding device. Sedation is usually given for comfort while the ETT is in place.



An oral ET tube

Are there any risks?

There is a risk of reduced oxygen to the body during intubation that may very rarely cause death or severe disability. Intubation may occasionally damage the trachea, vocal cords, mouth and teeth. There may be a reaction to the drugs used for the general anaesthetic. It may be malpositioned into the oesophagus. There is a risk of chest infection whilst a patient is intubated. The ETT may be accidentally dislodged. We have clear protocols and guidelines for intubation, the latest equipment and regular training to minimise the risks.

An ETT placed during intubation may stay in place for several weeks and occasionally longer. If a patient requires ventilator support for a long period of time we usually perform a tracheostomy (see Tracheostomy).

Lumbar Puncture

Also known as:

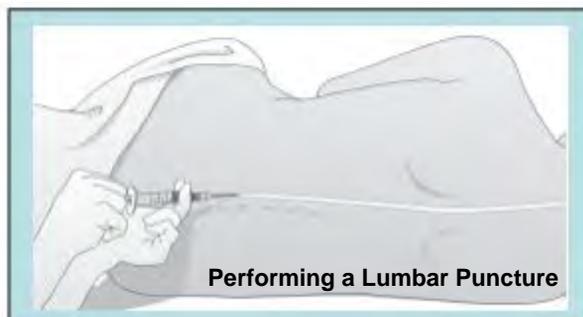
LP
Spinal tap

What is an LP and why is it performed?

An LP is performed to sample the fluid from around the spinal cord and brain. Under sterile conditions a doctor inserts a small needle through the lower part of the back and draws off a small amount of fluid. An LP may be done to measure the pressure inside the spine and brain or to check for conditions such as meningitis.

Are there any risks?

Occasionally an LP may cause a headache after the procedure. There is also a very small risk of damage to the spinal cord and brain from an LP, either directly or because of bleeding or infection at the site of the LP.



Swan

Also known as:

Swan Ganz catheter
Pulmonary artery catheter

What is a Swan and how is it put in?



A jugular Swan Ganz catheter

A Swan is a thin piece of tubing inserted via a vein in the neck or just beneath the collar bone. Under sterile conditions a doctor inserts the Swan using a needle. The needle is removed when the Swan is in place. The tubing then passes through the heart chambers and into the main blood vessel in the lungs (the pulmonary artery).

It is used routinely during heart surgery and also when patients need large doses of medications (inotropes) to support the blood pressure and heart function. A Swan measures how well the heart is functioning and monitors pressures within the heart and lungs.

Are there any risks?

A Swan can cause all of the complications mentioned under "CVC". In addition, a Swan can cause irregularity of the heart rhythm, usually during insertion. Rarely, a Swan may damage the pulmonary artery or lung. Chest X-rays are routinely done to check the position of the catheter and to help avoid complications.

Tiger Tube

Also known as:

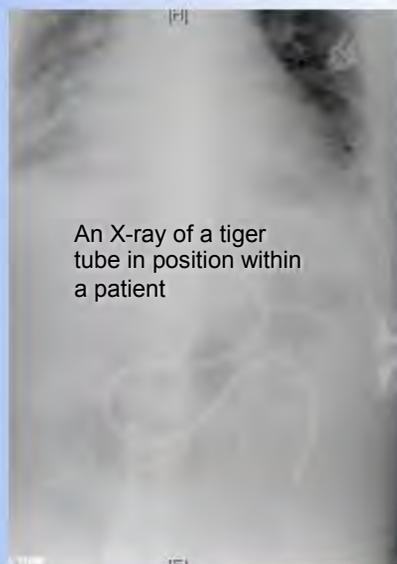
Post pyloric feeding tube
Naso-enteric tube
Naso-jejunal tube

What is a Tiger Tube and why is it used?

A Tiger tube is inserted (usually via the nose), then through the stomach and further down into the bowel. There are small soft plastic 'barbs' on its surface which help guide it into position. It is used when it is not possible to feed a patient into the stomach, but the rest of the bowel is functioning properly.

Are there any risks?

Tiger tubes may rarely damage the nose, stomach or bowel. Like other NG tubes, tiger tubes may lead to sinus infection. There is a possibility of incorrect tube placement. X-rays and regular checks are performed to check the Tiger tube's position and monitor for complications. Tiger tubes can cause nosebleeds when they are removed.



TOE

Also known as: Trans-Oesophageal Echo

What is a TOE?

A TOE is a specialised ultrasound examination of the heart. A doctor passes an echo probe through the mouth of a patient and into the gullet (oesophagus) and then the stomach. This allows inspection of the heart and major blood vessels from inside the chest to see if there are any abnormalities. It also provides information on how well the heart is working. Sedation is given to the patient during the procedure.

Are there any risks?

A TOE may rarely damage the mouth or oesophagus. Patients may have a sore throat for a short time after the procedure. There is a very small risk of the TOE probe causing perforation of the oesophagus. The risk is increased if there is a history of a bleeding disorder, difficulty swallowing, or liver disease. All patients are carefully monitored before, during and after a TOE.



TPN

Also known as:

Total Parenteral Nutrition
Intravenous Feeding

What is TPN and why is it used?

TPN involves introducing nutrition directly into a patient's vein. It is usually given via a CVC (see CVC). It is used when it is not possible to feed a patient via the stomach and gut. It is often possible to switch back to normal feeding via the gut as the patient's condition improves.



A bag of TPN attached to a pump

Are there any risks?

TPN may put a patient at increased risk of infection. It may also affect liver and immune function, and can cause high blood sugars requiring treatment. TPN is regularly assessed by nursing, medical and nutrition staff.

Tracheostomy

Also known as:

Trache or Tracheotomy

What is a Tracheostomy?

When a patient is attached to a ventilator for a prolonged period, a tracheostomy is usually performed. This is a plastic tube which is placed directly into the windpipe (trachea) through the front of the neck. It is more comfortable than a breathing tube through the mouth and often allows better weaning from the ventilator.

How is it put in?

Under a general anaesthetic and with local anaesthetic and strict sterile precautions, a doctor performs a small operation to insert the tracheostomy. This is usually performed in the intensive care unit.

Speech and swallowing are sometimes possible when a patient has had a tracheostomy in for some time. The tracheostomy is almost always removed when the patient has recovered, leaving a small scar.

Are there any risks?

All tracheostomies are inserted under direct ICU Consultant supervision. There is a small risk of bleeding during the procedure. Rarely, the patient may need to go to the operating theatre if the bleeding cannot be stopped. There is also a risk of low oxygen levels and difficulty with ventilation during the insertion of the tracheostomy or if it were to become blocked. Very rarely this may cause death or severe disability. There may be a reaction to the drugs used for the general anaesthetic. A tracheostomy may occasionally damage the trachea, needing long term followed up. All tracheostomies both in the intensive care unit and in the general wards are carefully monitored for any complications.



Transfusion



Different forms of Transfusion & related terms

Blood transfusion
 Packed Red Blood Cells
 Platelets
 Fresh Frozen Plasma or FFP
 Cryoprecipitate or Cryo
 Immunoglobulins

When are Transfusions used?

Blood transfusions are required to correct low blood counts (low haemoglobin, anaemia) or replace blood loss due to bleeding. Other blood products listed above are used to correct abnormal or low levels of clotting factors (if a patient is bleeding or is at risk of bleeding during a procedure) and antibodies.

Are there any risks?

Serious reactions against transfusions are fortunately rare. However all transfusions carry a small risk of infection. A recipient's body may also react against a transfusion. These reactions may range from a mild increase in temperature to severe multiple organ failure. The risk of a reaction is minimised by extensive checking procedures to ensure that a patient receives the safest blood product possible. Estimates of the risk are shown below:

Receiving the wrong transfusion	1 in 12000 to 1 in 77000
Headache, fever, itching & hives	1 in 100
TRALI	1 in 5000 to 1 in 190000
Hepatitis C	Less than 1 in 1 million
Hepatitis B	1 in 764,000
HIV (AIDS)	Less than 1 in 1 million
vCJD	Possible, not yet reported in Australia

TRALI = Transfusion Related Acute Lung Injury

vCJD = variant Creutzfeldt-Jakob disease

Viral risks based on ARCBS data from 1 January 2010 to 31 December 2011

Urinary Catheter

Also known as: In-Dwelling Catheter (IDC)
Catheter

What is a urinary catheter and why is it used?

A Urinary Catheter (IDC) is a soft tube inserted into the bladder through the urethra. It drains urine from the bladder continuously, removing the need for a patient to empty the bladder as usual. A small balloon at the tip of the catheter holds it in place within the bladder. It is essential for patients who are heavily sedated, have an epidural catheter in place, or who have limited mobility and are therefore unable to walk to the toilet. It is also used to closely record urine output. The catheter is connected to a drainage bag which holds and records the amount of urine passed.

Are there any risks?

Urinary catheters can lead to infection within the bladder. There is a small risk of damaging the urethra when the catheter is inserted which can lead to bleeding and, extremely rarely, problems with passing urine after the catheter is removed.

Some patients are temporarily unable to pass urine when the catheter first comes out – in this case, the catheter may need to be re-inserted for a short period of time.



Vascath

Also known as:

Dialysis line or Vascular Catheter

What is a Vascath and how is it put in?

A Vascath is a tube inserted into a large vein for dialysis (when there is kidney failure – see Dialysis) or for plasmapheresis (the removal of certain proteins from the blood). It is similar to a CVC. Under sterile conditions a doctor inserts a needle and then the vascath into either the neck, beneath the collar bone or in the groin. The needle is removed and the vascath is left in place for up to several weeks. The vascath is removed when it is no longer needed.

A femoral vascath



Are there any risks?

Vascaths sometimes take multiple attempts to insert. The most common significant complications of Vascaths are infection and blockage. During insertion, there is a risk of the needle damaging other structures such as arteries or nerves, and vascaths in the neck or under the collar bone may also occasionally damage the lung. Chest X-rays are done after insertion to check for any complications.



A dialysis (or haemofiltration) machine

Ventilator

Also known as:

Respirator
Breathing Machine
Invasive Ventilation

What is a Ventilator and why is it used?

When patients cannot breathe adequately, they may need to be attached to a ventilator (via an ET tube or tracheostomy – see Intubation and Tracheostomy). This is a common reason for admission to an intensive care unit. The ventilator provides additional oxygen and assistance with breathing. Patients on ventilators via an ETT often require sedation. When a patient no longer needs ventilator support it is weaned and the ETT removed. If a patient requires ventilator support for a long period of time we usually perform a tracheostomy.

Are there any risks?

Patients who are on a ventilator are at risk of damage to the lung and infection. The risk of chest infection and pneumonia (although small) increases with the amount of time spent on a ventilator. Patients are constantly monitored for complications.



Bennett 840 Ventilator

Thank you

The medical and nursing staff will be happy to discuss any concerns you may have about procedures and treatments performed in ICU.