



A Guide To The Paediatric Intensive Care Unit

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Introduction



This booklet aims to answer some of the questions you may have when your child is being admitted to the Hong Kong Children's Hospital Paediatric Intensive Care Unit (PICU). We understand that this can be a stressful experience for everyone concerned, and would encourage you to ask any questions or raise any concerns with the nurses and doctors looking after your child. Our team is here to help you and your family navigate and understand the many unfamiliar circumstances that you and your child could face at PICU.

PICU is a special hospital ward that specializes in providing critically ill children with comprehensive care and treatment. The PICU also tends to have a higher personnel-to-patient ratio than other parts of the hospital, and is equipped with the requisite equipment to facilitate continuous monitoring of your child's condition. Intensive therapies that might not be available in other parts of the hospital may also be provided at PICU.

Why is your child in PICU?

Your child may be transferred from another medical/ surgical ward, or from other hospitals, which cannot provide the specific care or the level of medical support that your child requires. Your child might be here for various reasons, which could include:

Acute illness

Such as severe pneumonia, severe infection, severe epilepsy, acute renal failure, car accident, burns, and acute poisoning

Deterioration of chronic conditions

Such as diabetes complications, cancer treatment complications, and heart failure due to congenital heart disease

Postoperative care

Following an operation such as brain surgery, heart surgery, tumor removal surgery, and kidney transplant



Receive medications or medical procedures that require special monitoring

Such as bronchoscopy examination, and drug desensitisation

Who will look after your child in the PICU?



The PICU is made up of a multidisciplinary team of well-trained medical professionals. This team includes doctors, nurses and allied health professionals.

Medical social workers are also here to help families cope with the emotional burdens of a child falling critically ill. The PICU also tends to have a higher personnel-to-patient ratio than other parts of the hospital.



Doctor



Nurse



Physiotherapist



Occupational therapist



Speech therapist



Dietitian



Pharmacist



Radiographer



Clinical Psychologist



Medical social worker



Prosthetist-Orthotist



Researcher

What should your child expect while in the PICU?

Doctors and nurses would need some time to settle in and/or stabilise your child's condition upon arrival at PICU. Therefore, you might be asked to wait outside the ward. The devices and medical equipment attached to your child are used to monitor your child in order to deliver timely medical care.

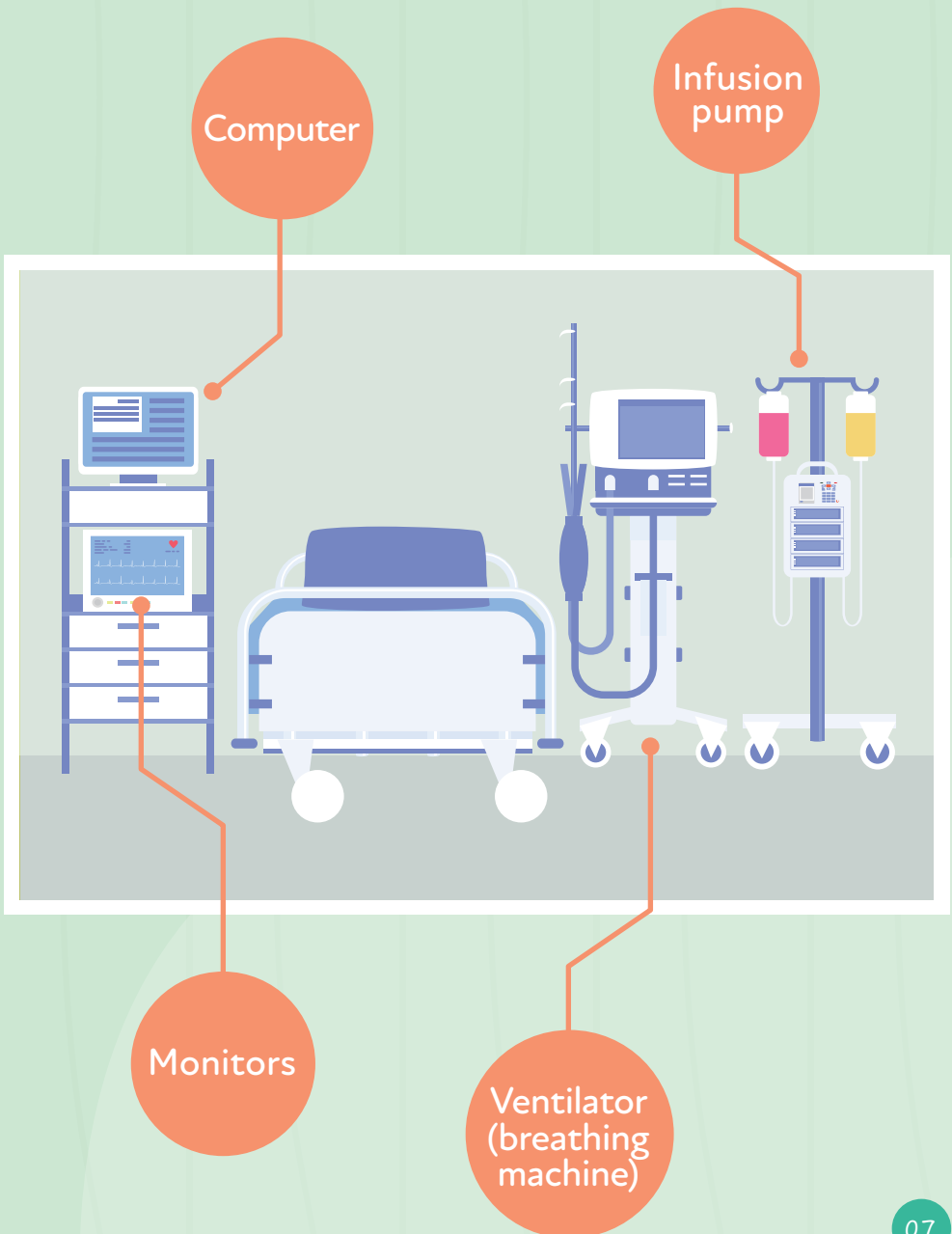
The specialist medical team will provide the most appropriate treatment according to your child's condition, for example a mechanical ventilator (i.e. a breathing machine) or drugs to support the heart and antibiotics. They may also administer medications to help your child relieve pain or discomfort, which could mean that your child would appear to be sleeping upon your visit.

You might also be surprised to see the medical equipment used to care for your child. The machines have alarms and display panels, and the noises and lights can be overwhelming. The noises may cause anxiety for some people, but they serve an important function. Feel free to ask our team if you have any questions.



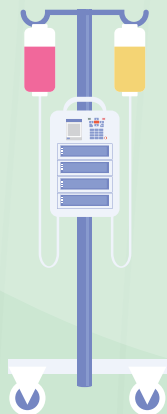
The length of PICU stay depends on the child's health condition, and can range from a few hours to several months. In most cases, patients usually spend no more than a week in PICU.

Introduction to the medical equipment



✦ Monitors

The bedside monitor displays information about your child's condition, for example the heart rate, oxygenation saturation and respiratory rate. These numbers reflect your child's vitals and provide information for the medical team to access the clinical condition of your child.

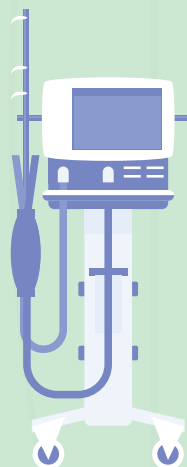


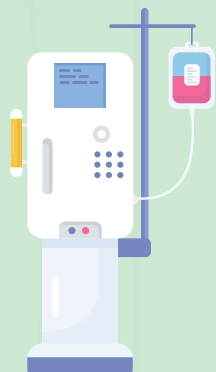
✦ Infusion pump

This pump uses advanced technology to deliver the amount of fluid and medication with high accuracy. Your child may receive infusion of multiple drugs at the same time, which may include intravenous fluids, sedative, painkillers, and drugs to support the heart.

✦ Ventilator (breathing machine)

Children in the PICU sometimes need extra help to breathe. This may mean getting some extra oxygen from a face mask or through tubing in the nose. In some cases, a child needs to be connected to the ventilator which is a breathing machine.





✦ Haemodialysis machine

This machine is used for children with acute or chronic renal failure (e.g., hyperkalemia, severe edema, uremia symptoms etc.), acute drug poisoning, and abnormal metabolism.

✦ Extracorporeal membrane oxygenation (ECMO) machine

This is an advanced machine that supports or replaces the usual function of the heart and lungs until they recover. It serves as a life support device until the child can make a full recovery, or get a specific type of treatment or procedure.



✦ Computer

Doctors and nurses use the computer at the bedside to record patient's medical information and data.



Introduction to tubes and catheters



Some tubes and catheters might be attached to the child's body. Please be assured that these are completely normal.

Intravenous line (IV)

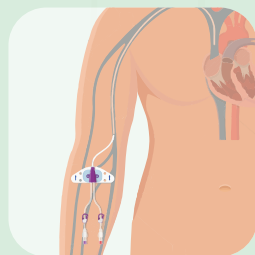
They are used for delivering fluids and medication intravenously

- Peripheral venous catheter

- Small flexible tube inserted into the vein, which is normally placed at the back of hand, on the arm or back of the foot.

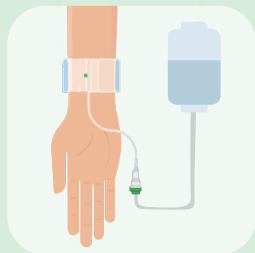
- Central venous catheter

- Large catheter, usually inserted into the larger, more central veins of the arm, neck, or groin
- It can prevent or reduce the risk of blood vessel damage when delivering special medications, such as total parental nutrition and special medication use to support the heart.



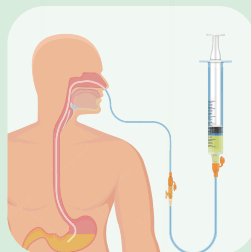
Arterial line

Placed in arteries, usually in the wrist. It is used to monitor blood pressure closely. They are also used for drawing blood samples to measure the amount of oxygen and carbon dioxide in the blood



Feeding tube

Children who are critically ill or have undergone surgery may have trouble eating or cannot eat by mouth, in which case feeding tubes can be used to provide nutrition safely.



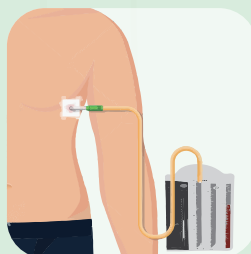
Urinary catheter

In order to measure the amount of urine produced, the soft plastic tube is used to drain urine into drainage bag.



Chest drain

If there is excess fluid or air in the pleural space, doctors may insert a thin plastic tube between the chest wall and lungs to remove the liquid.



Common medical tests

In order to make a diagnosis and determine the necessary treatment, doctors may order a variety of tests to obtain relevant and important clinical information, such as:

Blood test

Urinalysis

Cerebrospinal fluid (CSF)
analysis

Medical imaging examination

Medical imaging can show internal body structures, which is an important part of the examination. They include:

- X-ray
- Computed tomography (also called a CT or CAT scan)
- Magnetic resonance imaging (MRI)
- Ultrasound





Visiting arrangements

During the children's difficult time at PICU, parental support and companionship play a critical role in their full recovery.

- Visiting hours may vary depending on operation of the department or the latest infection control measures, please check with nurses on duty for more details
- Only parents/legal guardians are allowed to visit
- Nurses will make special arrangements should the child's condition deteriorates
- During doctor rounds, or when patients require emergency or medical procedures, nurses might ask parents to step out of the ward temporarily
- If you want to obtain an update on your child's condition, please feel free to ask the doctors and nurses on duty



Notes to visitors



- Please follow infection prevention and control measures as instructed by clinical staff, in order to reduce the risk of cross infection and to keep everyone safe
- Please wear a mask at all times inside the ward
- Please wash your hands before and after leaving the patient's room by using alcohol-based hand rub or soap and water
- Please put your mobile phone on silent before entering and refrain from talking on your mobile while you are in the patient's room
- Please make sure the hospital bed-rail is raised and locked before leaving the room while the patient is in bed
- Please do not touch any medical equipment
- Please do not read the patient's record without permission
- Please refrain from video filming and voice recording
- Please do not eat, drink or smoke in the patient's room
- Please take all your personal belongings with you



Admission checklist



Documents

- ☐ Both patient and parent/legal guardian's identification documents (e.g. Hong Kong identity card, birth certificate, passport)
- ☐ Immunization record (e.g. vaccine card)
- ☐ Other relevant documents that show patient's medical record (e.g. follow-up appointment slip, referral letter, laboratory report, scan-image, health reminder card)

Personal belongings

- ☐ Prescription drugs
- ☐ Wet wipes, tissues
- ☐ Diapers
- ☐ Pacifier
- ☐ Special infant formula / milk
- ☐ Feeding tube equipment (e.g. gastrostomy tube accessories, special teats for feeding bottle)
- ☐ Toiletries (e.g. toothbrush, toothpaste, comb)
- ☐ Mobility aids (e.g. wheelchair, walker frame, glasses)
- ☐ Items for recreation and/or items that give children a sense of security (e.g. toys, books, colour pencils, music box, music speaker)
- ☐ Clothing for discharge



What happens in the PICU?

* Please put name labels on all personal items



Advice for parents

It is normal for parents to feel worried and stressed during their child's stay in the PICU.



- Your child needs your support, so please don't neglect to take care of yourself. You need to rest, drink, eat and sleep regularly.
- You are welcome to ask medical staff for updates when you are unsure of your child's condition.
- Use a notepad to write down any questions you want to ask the doctor.
- Avoid focusing on the monitors while visiting your child.
- You can still talk to your child even though they appear to be sleeping, in most cases they can still hear and recognize familiar voices.
- Engage with other family members and friends and support one another.



Discharge



Being discharged from the PICU is an important milestone on the road to recovery. It means that a child no longer requires such intensive level of monitoring, therapy, and/or medical care, and is one step closer to full recovery!

Transfer to general ward

Before hospital discharge, majority of the children in PICU are required to transfer to another ward for further, less-intense monitoring and follow-up care. This means your child no longer requires intensive care and observation. We will hand over your child's medical record in details to the relevant medical staff. We understand that this change may cause anxiety. Please feel free to ask our medical staff if you have any questions. Most parents feel less worried after finding out more about this process.

Transfer to another hospital

If your child requires a transfer to another hospital, this will usually be undertaken by an ambulance. Your child will be accompanied by a doctor or nurse if needed.



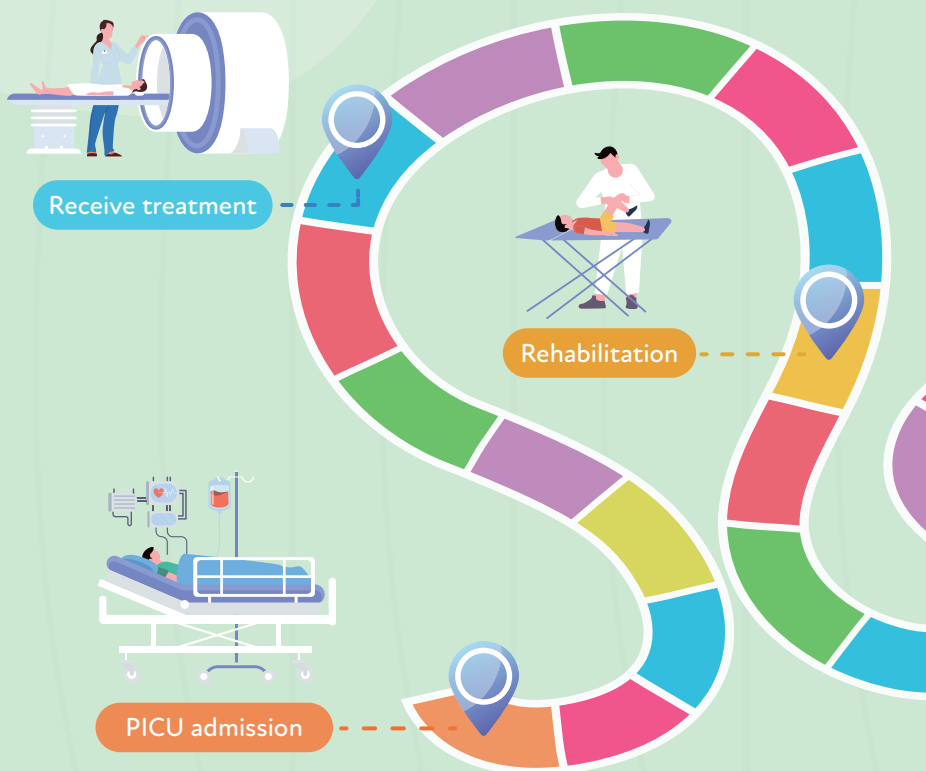
What happens after your child leaves the PICU?

Rehabilitation

PICU provides life support, intensive care and treatment for critically ill children. Most children are able to make a full recovery after hospital discharge, but some children still require continuous care and rehabilitation. Doctors and allied health professionals may ask your child to visit regularly for routine appointment, in order to follow up on the recovery process, and provide up-to-date treatment.

For example, children who are dependent on the breathing machine for an extensive period of time during their PICU stay will need to receive pulmonary rehabilitation training. On the other hand, if they are using breathing machines at home, doctors will also check and adjust their machine settings according to individual needs during follow-up visits.

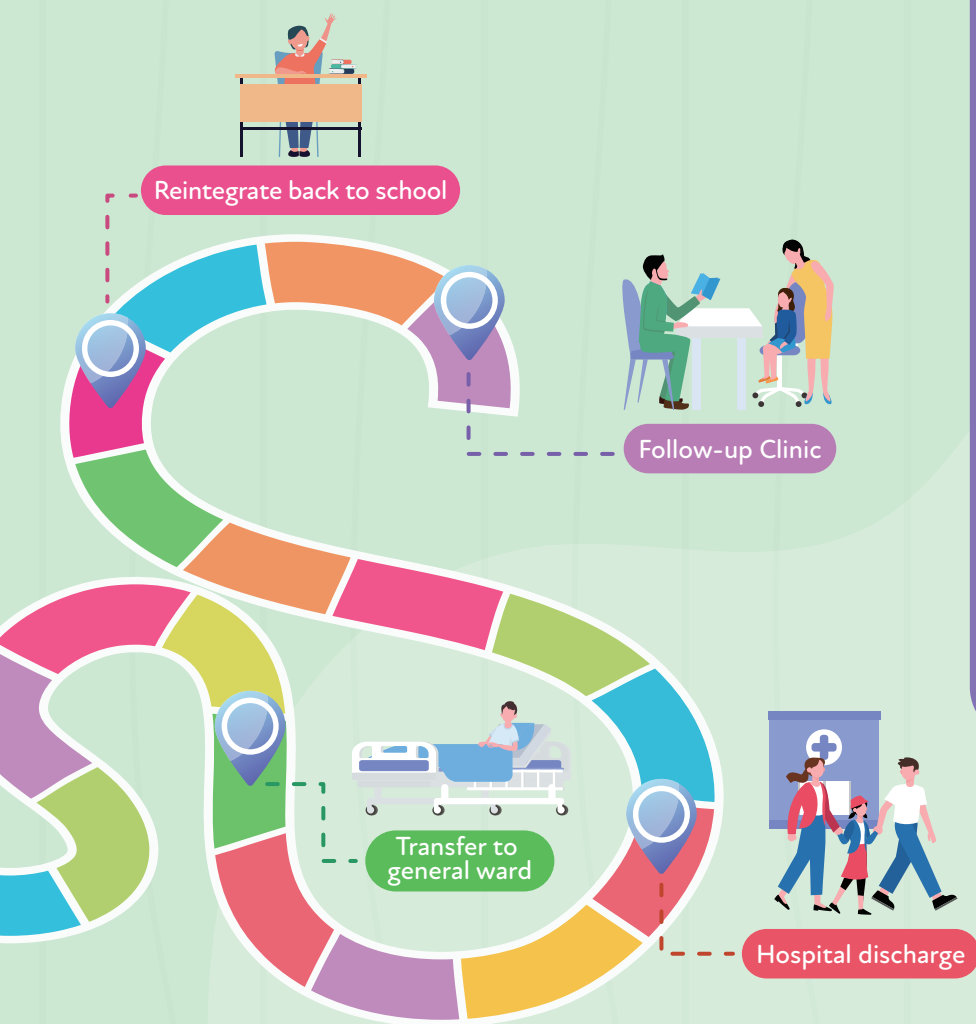
Some children have not been back to school for a period of time due to hospitalisation, and the allied health team can also support in their reintegration back into normal school life.



Adapting to life after intensive care



In addition to the child's physical recovery, consideration should also be given to their emotional and social recovery. Parents can encourage children to share more of their experiences from their stay at the PICU. Some children may need additional support from school to get back to normal life. Some of the changes can be difficult for the children and their families, but it is important to face them with an optimistic attitude and seek help from the medical team when needed.



What happens after your child leaves the PICU?

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