GUIDELINES FOR ADMISSION TO HDU

The HDU is staffed and equipped to provide a level of care intermediate between PICU and the general wards and has immediate access to medical support at all times.

Admitted patients will
i) have acute medical and surgical conditions
ii) typically have acute reversible single organ failure and be at risk of developing complications
iii) be suitable for a 1:2 nursing staff to patient ratio.

Patients may be admitted to HDU
i) directly from CED, PACU or the wards, or
ii) from PICU as a step-down prior to transfer to either Starship wards or referring hospitals.

Requirement for HDU is determined predominantly by acuity as opposed to being for specific conditions. Such patients will typically require a high level of observation and monitoring, frequent interventions and/or therapies not available on the wards. Typical conditions/problems which are appropriate for HDU care are listed below, but this list is also not intended to be either exhaustive or obligatory. It may also be appropriate/necessary to care for children with the conditions below in intensive observation areas within Starship. Ultimately, appropriateness will be determined by individual clinical assessment. During times of peak demand some patients who would be HDU candidates may have to be cared for elsewhere in the hospital.

AIRWAY
- apnoeas requiring intervention
- upper airway obstruction requiring either oxygen, nebulised adrenaline and/or with a moderate or greater increase in work of breathing
- airway compromise or at significant risk of such after a procedure (after having been recovered in PACU)
- tracheostomy patients with either a new tracheostomy (and not requiring ventilation), or for observation immediately after decannulation. Length of stay is determined by the adequacy of the underlying airway.

BREATHING
- requirement for ≥ 50% oxygen or ≥ 10 L/min oxygen
- acute severe asthma requiring interventions more frequently than hourly
- requiring “bubble” CPAP, mask BiPAP or high flow oxygen for an acute respiratory condition
- initiation of non-invasive ventilation in children who will need long term respiratory support

CIRCULATION
- requirement for ongoing fluid resuscitation to avoid circulatory instability
- requirement for low dose (≤ 5 mcg/kg/min) dopamine or dobutamine and/or milrinone (≤ 0.5 mcg/kg/min)
• acute/new arrhythmias
• fluid and/or electrolyte/metabolic instability requiring frequent blood testing and/or intervention e.g. acute DKA, acute decompensation of metabolic disorders, major electrolyte abnormalities
• acute renal failure
• hypertension requiring invasive monitoring and acute therapy

NEUROLOGICAL
• acute neurological conditions with impaired consciousness and GCS 9-12
• prolonged (e.g. > 1 hour) or frequent seizures requiring intervention
• neuromuscular patients requiring at least hourly assessment/intervention, either newly diagnosed (e.g. GBS) or with an acute deterioration

OTHER
• acute or acute on chronic liver failure with complications
• significant GI bleeding e.g. variceal bleeding
• requirement for continuous monitoring and observation e.g. after major surgery, surgery in children with significant co-morbidities, drug overdose, desensitising with high risk of anaphylaxis, etc

HDU is not appropriate for
i) patients with > 1 organ system compromised as they should be in PICU
ii) patients with chronic conditions (e.g. chronic respiratory failure, chronic neurological conditions) without a new and acutely reversible component of their condition

Process for Admission and Management
• the on-call PICU consultant will be responsible for all patients admitted to HDU. Any orders the primary team have need to be discussed with the PICU medical team. Only PICU medical staff are able to chart patient orders and drugs. This is to ensure a single common line of communication.
• all admissions should be discussed with the on-call PICU registrar or consultant
• patients will be reviewed daily by the primary team.
• any differences of opinion about patient admission or management should be discussed by the PICU consultant and primary team consultant
• children with severe chronic conditions in whom limitations to therapy are appropriate should have these agreed and documented on admission. It may be appropriate for a child to be admitted to HDU but not PICU.
• HDU patients will be cohorted according to acuity and infectivity and may therefore be cared for anywhere within the PICU/HDU complex
• patients booked to come to HDU after surgery need to have bed availability confirmed by either the surgeon or anaesthetist

Discharge from HDU

This will occur when
i) the child is in a suitable condition for the ward
ii) the primary team has been notified
iii) discharge documentation is completed.