

Regardless of age, diagnosis and prognosis

If a patient requires one of the following support, he/she is eligible for ICU admission

- Advanced respiratory support
- Support of two or more organ systems
- Support for an acute reversible failure of another organ

*early referral is critical for patients who are eligible for ICU admission

Categories of organ system monitoring and support

(Adapted from *Guidelines on admission to and discharge from intensive care and high dependency units*. London: Department of Health, 1996.)

Advanced respiratory support	Circulatory support
<ul style="list-style-type: none"> • Mechanical ventilatory support (excluding mask continuous positive airway pressure (CPAP) or non-invasive (eg, mask) ventilation) 	<ul style="list-style-type: none"> • Need for vasoactive drugs to support arterial pressure or cardiac output
<ul style="list-style-type: none"> • Possibility of a sudden, precipitous deterioration in respiratory function requiring immediate endotracheal intubation and mechanical ventilation 	<ul style="list-style-type: none"> • Support for circulatory instability due to hypovolaemia from any cause which is unresponsive to modest volume replacement (including post-surgical or gastrointestinal haemorrhage or haemorrhage related to a coagulopathy)
<p>Basic respiratory monitoring and support</p>	<ul style="list-style-type: none"> • Patients resuscitated after cardiac arrest where intensive or high dependency care is considered clinically appropriate
<ul style="list-style-type: none"> • Need for more than 50% oxygen 	<ul style="list-style-type: none"> • Intra-aortic balloon pumping
<ul style="list-style-type: none"> • Possibility of progressive deterioration to needing advanced respiratory support 	<p>Neurological monitoring and support</p>
<ul style="list-style-type: none"> • Need for physiotherapy to clear secretions at least two hourly 	<ul style="list-style-type: none"> • Central nervous system depression, from whatever cause, sufficient to prejudice the airway and protective reflexes
<ul style="list-style-type: none"> • Patients recently extubated after prolonged intubation and mechanical ventilation 	<ul style="list-style-type: none"> • Invasive neurological monitoring
<ul style="list-style-type: none"> • Need for mask continuous positive airway pressure or non-invasive ventilation 	<p>Renal support</p>
	<ul style="list-style-type: none"> • Need for acute renal replacement therapy (haemodialysis, haemofiltration, or haemodiafiltration)

Respiratory support

If the patient has no history of lung disease

If Arterial oxygen pressure maintained at $\geq 8\text{kPa}$ || O₂ saturation 90%
Mechanical ventilation is not required;

If else the patient has “normal blood gas tension but working to the point of exhaustion”||
“abnormal blood gas tensions”|| “circulatory failure”||” respiratory failure”

Mechanical ventilation is recommended

Circulatory support

**need to do more research*

Neurological support

**more research needs to be done*

Renal Support

**more research needs to be done*

As with other patients, the decision to admit to ICU based on the following factors

- Diagnosis
- Severity of illness
- Age
- Co-existing disease
- Physiological reserve
- Prognosis
- Availability of suitable treatment
- Response to treatment to date
- Recent cardiopulmonary arrest
- Anticipated quality of life
- The patients wishes

Severity of Illness scoring system such as (APACHE) or (SAPS) are not sufficient

**I will do more research on the correlation between these scores and ICU admission.*

If a patient meets any of these following criteria, an ICU senior doctor has to be called for admission assessment

Criteria for calling intensive care staff to adult patients

(Adapted from McQuillan et al *BMJ* 1998;316:1853-8.)

- Threatened airway
- All respiratory arrests
- Respiratory rate ≥ 40 or ≤ 8 breaths/min
- Oxygen saturation $< 90\%$ on $\geq 50\%$ oxygen
- All cardiac arrests
- Pulse rate < 40 or > 140 beats/min
- Systolic blood pressure < 90 mm Hg
- Sudden fall in level of consciousness (fall in Glasgow coma score > 2 points)
- Repeated or prolonged seizures
- Rising arterial carbon dioxide tension with respiratory acidosis
- Any patient giving cause for concern

The following are the initial tests done on all ICU patients

Basic monitoring requirements for seriously ill patients

- Heart rate
- Blood pressure
- Respiratory rate
- Pulse oximetry
- Hourly urine output
- Temperature
- Blood gases

Initial treatment for ICU patients always prioritize maintaining critical vital over establishing a precise diagnosis.

**I will do more research on the cut-offs and criteria of these tests*

Reference

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1115908/>