

The Aims / Expected Outcome of this policy:

To provide a clear guideline regarding the role and responsibilities of the ICU team in preparing to receive a patient to ICU.

Related Standards or Legislation

NSQHS Standard 1 Governance

Related Policies :

ICU Clinical Guidelines : Clinical Handover :

<http://intranet.sswahs.nsw.gov.au/liverpool/icuprotocols/pdfContent.cfm?pdf=345>**2. Policy Statement:**

- All care provided within Liverpool Hospital will be in accordance with infection prevention and control, manual handling and minimisation and management of aggression guidelines.
- Drug prescriptions, administration thereof and future scheduled administration must be reviewed by the receiving team with the transferring team. Additionally technology in use with the patient must be reviewed for correct settings, activation and patient compatibility.
- Documentation of the handover process, communication and patient status and physician directives must occur once the patient is stabilised.
- A medical-to-medical handover must occur for all ventilated and medically escorted patients admitted/returned to the ICU.
- All ICU nurses must undertake the competency assessment "Receiving a patient into ICU". This must be taken during the orientation supernumerary period or soon after.

3. Principles / Guidelines**Bed Area Preparation**

As per the guideline "Bed Area Preparation".

<http://intranet.sswahs.nsw.gov.au/liverpool/icuprotocols/pdfContent.cfm?pdf=121>

- Ensure modules for SpO₂, ETCO₂ (ventilated patient), ECG, ABP (NIBP if no arterial line) and a spare pressure module are present prior to the patient's admission.
- Once a patient has been transferred from ICU and the bedspace is vacant, the RN accepting care of a new admission into that bed space must ensure that the area is prepared as per the Guideline.
- If equipment is malfunctioning within the bed area (and is essential to the care of the patient), the Team Leader (TL) and Equipment Officer must be notified immediately and the bed space de-commissioned until the equipment is once again available/in working order.
- If supplies are unavailable at the time or the nurse is unable to complete preparing the bed area: the nurse must communicate this to the team leader.

Nursing actions upon notification that a patient is to be admitted/returned to ICU

- Checklist for receiving a patient available (see appendix 3)
- Contact ICU registrar/consultant and confirm with them regarding expected patient admission (they should already have been informed / consulted about the admission by the transferring /requesting team).
- Contact TL to organise assistant RN for patient admission
- Bed area contents checked and equipment activated and working; take bedside monitor and ventilator (if required) **OFF STANDBY and ACTIVATE.**

- Check routine alarm settings and re-assess/re-set based upon available patient information/procedure attended.
- Check ventilator settings and alter these as required. Always check these settings with the anaesthetist and ICU registrar when the patient arrives into the ICU. For example, a patient on pressure support ventilation who has surgery may require the ventilatory mode 'SIMV and PS' for a short time post anaesthesia and then may return to a spontaneous mode when recovered.
- Check that fluids, blood collection tubes and pathology and x-ray request forms are available.
- ICU flowchart and other health care record charts available

As patient arrives - ICU nurse and doctor:

- Assesses the patient: visual scan, greet patient (assesses ability to respond), chest rise and fall, observe transport monitor values.
- Where required, obtains appropriate assistance to move patient from transport stretcher using manual handling assist devices.
- A medical to medical handover is to occur whenever a ventilated/medically escorted patient is admitted/returned to the ICU. Nurse involvement is imperative.
- Commence receiving report from nurse escort/anaesthetist: evaluate ventilatory needs, change vent settings as required in conjunction with ICU medical officer and transfer patient to ventilator. Auscultate chest for adequate air entry, view tracheal tube for stability and position (if endotracheal tube – note position at teeth/lips), assess rise and fall of chest and observe transport monitor for vital signs' values.
- Commence transfer of the MMS followed by each monitoring module, one at a time. Commence ET_{CO}₂ monitoring for all ventilated patients.
- At all times, monitor remaining parameters on transport monitor until each individual module has been transferred to the ICU monitor.
- Zero transducers if required, ensure all alarm limits are appropriate, with ICU registrar/consultant.
- Document plan of care and vital signs and physical assessment findings.
- Review drug chart, anaesthetic/operation chart re major issues of input/output, events and further actions to be attended with nurse escort/anaesthetist. Ensure all blood products (excepting thawed FFP) are used as per prescription or returned to Blood Bank.
- Check if relatives were with patient and where they are currently waiting. Check what information they may have been given verbally by the transferring team.
- Prior to the transferring team leaving the ICU, a "Time Out" will be called so as any final issues can be addressed. The anaesthetist /MO will not leave the ICU until a medical-to-medical handover has occurred.
- Obtain routine blood tests, ABG as required and call for CXR to confirm line placement and tracheal tube /enteral tube position. Perform 12-lead ECG.

The table below outlines the primary survey that needs to be performed.

	ASSESSMENT
AIRWAY	<ul style="list-style-type: none"> ▪ Is patient conscious or unconscious? ▪ Is the C-spine clear? ▪ Type of airway: Are they maintaining their own airway or do they have an endotracheal tube (ETT), nasotracheal or tracheostomy tube? ▪ Position of airway, is it well secured? What is the ETT position at teeth? Is the tracheostomy tube secured and positioned in midline? ▪ Auscultate the lungs and check EtCO₂. Check air entry if equal and visualise if trachea is midline. ▪ Listen for gurgling, presence of stridor, hoarseness of

	<p>voice.</p> <ul style="list-style-type: none"> ▪ In patients with ETT - check for presence of cuff leak.
BREATHING	<ul style="list-style-type: none"> ▪ Is breathing spontaneous or assisted? ▪ Assess for increased work of breathing, confusion, agitation, restlessness or a decreased level of consciousness. ▪ Assess respiratory rate, SpO₂ and ETCO₂ values. ▪ Auscultate lungs, confirm presence of air entry. Listen for stridor, wheeze or any abnormal breath sounds. ▪ Look for: <ul style="list-style-type: none"> ○ The patient's colour and level of consciousness and the position they have adopted. ○ Symmetrical rise and fall of the chest. ○ The rate, rhythm and depth of respirations. ○ Any accessory muscle use: intercostal/subcostal retractions, abdominal muscle usage, excessive nasal flaring, pursed lips, tracheal tug or tracheal deviation. ○ Paradoxical movements (opposite to normal respiratory movements). ○ External jugular venous distension (engorged neck veins). ▪ If ventilated check the ventilator parameters and alarm limits and the patients compliance ▪ Percuss chest wall for abnormal resonance – dullness is associated with fluid (haemothorax, pneumonia), while hyper-resonance is associated with air (pneumothorax). ▪ Palpate for presence of subcutaneous emphysema, which is a crackling sensation on the upper chest wall due to air trapped under the skin from injury or surgery. ▪ Perform Arterial blood gas analysis. ▪ Obtain a chest x-ray.
CIRCULATION	<ul style="list-style-type: none"> ▪ Assess current vital signs. Check heart rate, blood pressure. ▪ Check colour –pallor, cyanosis, mottling ▪ Look for tachycardia rate > 100/minute or bradycardia rate < 60/minute ▪ Is the rhythm regular or irregular? ▪ Is there one P wave for every QRS wave? ▪ Feel the radial pulse for quality, rate and rhythm. ▪ Is the patient hypotensive, the mean arterial pressure (MAP) should be ≥ than 70mmHg? ▪ Is the patient diaphoretic, pale/dusky/blue and cool peripherally? Is the capillary refill > 3 seconds? ▪ Is the patient requiring inotropes or vasopressors to maintain a MAP ≥ 70mmHg? ▪ Is the urine output < 0.5mls/kg/hr? ▪ Has the patient excessive losses or drainage from wounds or drains? ▪ Has the patient required fluid boluses and what was the response? ▪ Is the patient bleeding? What is the Hb? ▪ Check for signs of external haemorrhage or internal haemorrhage (swelling, distension, discolouring under the skin).

	<ul style="list-style-type: none"> ▪ Obtain 12-lead ECG if new admission / post-operative patient. ▪ Listen to heart sounds. ▪ Collect routine blood for pathology: EUC, CMP, LFT's, FBC, Coagulation profile.
DISABILITY	<ul style="list-style-type: none"> ▪ Check level of consciousness – Check GCS and limb strength. ▪ Check pupil size, equality and reaction to light. ▪ Assess for restlessness, agitation, abnormal posturing, and abnormal behaviour. ▪ Is the patient on a sedation infusion and /or analgesia infusion? ▪ Assess muscle tone. Is the patient on infusion of neuromuscular blocking agents? ▪ Is the patient complaining of headache, nausea, vomiting? ▪ What is the pain, sedation and delirium score?
EXPOSURE	<ul style="list-style-type: none"> ▪ To be able to adequately assess the patient it is necessary to expose the patient and the area to be examined. Maintain privacy and dignity, introduce yourself and explain what you are doing. ▪ Check for pressure areas, rashes, edema, swelling, skin discolouration, ▪ Assess wounds – take down dressings and note presence of odours.

Handover elements post-operatively/procedure – theatre/recovery nurse and anaesthetist:

- Summary of procedure, problems/events encountered, infection status, and allergies/adverse drug reactions.
- Immediate needs of the patient – inotropes, blood transfusions etc (assistant RN to be available to make phone calls, draw up drugs etc).
- Assess patient and state ventilation and haemodynamic needs.

Inter-Department Handover

- Patients transferred from the Emergency Department, Operating Theatre, and wards or from other hospitals via critical care transport teams direct into the ICU require simultaneous assessment of the patient, intervention as required and clear communication between the transferring and receiving teams.
- A face-to-face medical-to-medical handover must occur for all ventilated and medically escorted patients admitted or returned to the ICU. For HDU (High dependency) patients either a phone or face to face medical handover must take place between the transferring medical team and the ICU team. The ICU RN caring for the patient must be present and involved in the face to face handover.
- The process for handover follows the ISBAR approach (APPENDIX 1). Receive a summary of procedure, presenting and current problems/issues/events encountered, infection status, allergies /adverse drug reactions, investigations and current management plan.
- Generally this process will involve an Intensive Care registrar/staff specialist and two nurses, one of whom has been assessed as competent in receiving a patient into the ICU.
- Receiving a patient into the ICU requires combining assessment of the patient, receipt of handover, accurate documentation, concentration; recall and provision of patient care. To assist this complex process a checklist is used (APPENDIX 3).

- Assessment of immediate needs of the patient and stabilisation of Airway, Breathing and Circulation is a priority.
- Documentation of the process, communication, patient status and medical directives must occur once the patient is stabilised after admission to the ICU and again at discharge.

Inter- Profession Handover

- This handover may occur between “Medical to Nursing” and vice versa or “Medical to Allied Health” or “Nursing to Allied Health”.
- Use the same ISBAR Approach.
- Have clear concise content. Avoid information overload.
- Communicate and document presenting problem, assessment findings, identified issues and management plan.

Ongoing Care: M_FAST HUG²S and a Ventilatory Plan exist.

M: Mouth cavity assessed and mouthcare attended and documented.

F: Feeding is in place according to the guideline and dietetic input.

A: Analgesia is prescribed and is meeting the needs of the patient, when IV prescription ceased, ensure it is changed to oral prn prescription.

S: Sedation is prescribed for ventilated patients and does not exceed a modified Riker score of 2. If it does, reduce/cease sedation and re-assess for ongoing needs.

T: Thromboprophylaxis: Ensure a prescription for heparin or other appropriate drug (as per guideline) is prescribed to prevent DVT. TED stockings in place and calf compressors as per guideline.

H: Head-up position to be greater than 30 degrees unless contraindicated.

U: Ulcer prophylaxis: ensure prescription for ranitidine or prantoprazole is prescribed as per the guideline.

G: Ensure tight glucose control is in place according to the Insulin actrapid guideline AND record when bowels were last open. Ensure that bowel therapy guideline is followed and bowel movements recorded.

S: Skin integrity and pressure ulcer prevention in place, Waterlow score recorded.

Ventilation Plan

- A prescription for current ventilator settings is to be obtained and recorded in the Management Plan section of the flowchart.
- Parameters to be maintained should be stated, eg. Keep SpO₂ > 95%.
- Ensure respiratory goals are stated.

4. Performance Measures

All incidents are documented using the hospital electronic reporting system: IIMS and managed appropriately by the NUM and staff as directed.

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Reviewers: Director of Intensive Care, ICU Nurse Manager, ICU Staff Specialists, ICU Nursing Unit Managers, Clinical Nurse Educators, , ICU Clinical Nurse Specialists, ICU Equipment Officers

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Appendix 1

ISBAR

(Introduction, Situation, Background, Assessment, Recommendation)

Information that is required for every clinical handover

Clinical conversations should be clear, focused and the information relevant.

Poor communication risks patient safety and contributes to adverse outcomes.

I - Introduction

Identify yourself

Confirm you are communicating to the intended person and ensure that the recipient is in a position to receive the communication.

Identification of the patient must include the patient's name, date of birth and medical record number.

For example "I am (name and role)"

"I am calling from....."

"I am calling about....."

S – Situation

Give a brief summary of the situation

For example "I have a patient (age and gender) who is stable yet I have concerns

"I have a patient (age and gender) who unstable with rapid/slow deterioration"

"The presenting symptoms are....."

B – Background

Give the background or a brief history (Give pertinent information which may include: Date of admission/ presenting symptoms on admission / medications/ test results/ status changes). This step also includes a brief synopsis of treatment to date and assessments / tests that are pending

For example "This is the background of"

A – Assessment

Give a summary of the key issues and assessment findings. This includes physical assessment, vital signs, clinical observations and investigation results

For example "On the basis of all of the above I believe the:

The patient's condition is

And they are at risk of

And in need of"

R – Recommended actions

Be clear about what you are requesting. This also includes communication of the management plan.

What do you want done? When do you want it done? By whom do you want it done?

For example "This patient needs transfer to / review

Under the care of

In the following time frame"

Appendix 2**Patient assessment process**

	ASSESSMENT
Airway	Type of airway, position at teeth stated, CXR results stated. Auscultate the lungs and check ETCO ₂
Breathing	Spontaneous or assisted, ventilator parameters and alarm limits reviewed, patient compliance and SpO ₂ and ETCO ₂ values reviewed. Auscultate lungs, confirm presence of air entry. Review ABG results.
Circulation	Assess current vital signs. Discuss management. Document hemodynamic goals. Assess for patient pulse, pedal pulses and skin colour, warmth. Obtain 12-lead ECG if new admission / post-operative patient.
Disability	Review GCS (including limb strength and pupillary response); and type of stimuli required. Assess and document the RASS and CAM ICU score. If relevant, review ICP, CPP, EVD settings.
Electrolytes	Electrolytes: review latest results and ongoing management.
Fluids/renal	Assess number, types and status of lines; check for correct IV fluids, running through appropriate pump/syringe driver– correct labelling, rate and dose. Review renal status and current urine output.
Gastrointestinal	Assess IAP / Feeding / Bowels / BGL: Abdominal assessment results, bowel sound status and when bowels last opened/interventions required. State the type of feeds patient is receiving and the goal rate. Assess BGL and if patient is on insulin.
Haematology	Review results of FBC and Coagulation profile, management plan for abnormal results.
Infection	Review infection status, presence of wounds, drains and dressing requirements. Presence of pressure ulcers.
JVP/CVP	Review volume status and fluid balance. Assessment of fluid losses during surgery, pre and post-admission and from wound drains.
Kelvin	Review patient's temperature and interventions if hypo or hyperthermic.
Lines	Review lines - position, dressing, signs of infection, date of placement and need for change.
Medications	Review medication chart to ensure all charted drugs have been administered following the 5 rights. Allergy/adverse drug reaction status.
Nutrition	Review feeding regimen, fasting status, feed rate and goal rate. Discuss feed tolerance. Review enteral tube position and post-operative directions.
Old notes	Ensure these are available for review.
Pain score, pain relief	Assess pain score using the behavioural scale if unconscious/uncooperative or visual scale if able to respond to directives. Intervene as per guideline and patient need for analgesia
Query	Ensure that the management plan for the patient and goals are stated, and any queries are answered.
Relatives	Ensure relatives are located and notified of patient admission to the ICU. Contact numbers are recorded. Ensure communication is clearly documented in the health care record.
Sedation	Assess Sedation score using the RASS. Have a documented sedation goal.
Skin	Perform a Waterlow Score for skin integrity and risk of pressure ulcers, ensure measures are in place to minimise pressure ulcers.
Trauma	Handover results from primary/ secondary/ tertiary surveys. Obtain information regarding current pathways and spinal precautions, movement limitations.
X-Rays, scans	Review CXR results and assess for correct tube and line position.
Y Why?	Raise further questions re patient care with transferring team /ICU team.
Zzzz: sleep	Review patient's emotional, spiritual and rest status.

Appendix 3**Checklist/Summary: Receiving a Patient into the ICU from OT/Other Area**

Action	Completed ✓	Comments
• Post-op patient: 20 minute call received from OT or recovery.		
• ICU registrar/consultant notified to attend admission.		
• Bed area and equipment prepared <ul style="list-style-type: none"> ▫ Safety equipment checked and functioning ▫ Bedside monitor off standby, alarms reviewed and activated, modules present, calibrated. ▫ IV fluids present ▫ Blood collection tubes, ABG syringe ready ▫ Flowchart and other charts ready ▫ Spare cables for a 12 Lead ECG via monitor 		
• TL notified of ETA and assistant nurse identified.		
• Ventilator off standby, parameters set on SIMV.		
• On arrival, 2 nurses present and ICU registrar/consultant		
• Fast primary survey completed: <ul style="list-style-type: none"> → Airway: secure, patent, position/depth noted. → Breathing: air entry heard, SpO₂ and ETCO₂ reviewed. → Circulation: established with HR, ECG waveform, BP. → Disability: assess GCS, pupils and limb strength. 		
• Patient transferred to ICU bed with manual handling assist devices and personnel.		
• Receiving RN or Anaesthetist connects patient to ventilator, checking parameters with Anaesthetist and ICU registrar/consultant.		
• Auscultate lung fields for air entry and chest rise/fall, patient colour and comfort, vitals stable (Assistant nurse).		
• Clarify chosen ventilator parameters and alarms with Anaesthetist/ICU registrar, and/or determine immediate ventilation requirements.		
• Listen to handover, events, and patient history after placing transport modules into monitor, one at a time, starting with SpO ₂ and then as per patient need. Re-zero as required.		
• Clarify parameters for vitals, set alarm limits and ETCO ₂ level, in conjunction with ICU registrar/consultant.		
• Immediate needs addressed: <ul style="list-style-type: none"> ▫ Inotropes, blood transfusions, fluids etc 		
• Time-Out: ensure patient stable and all information now available to ICU team.		
• Handover checklist completed by RN and care accepted by the RN and MO. Checklist signed.		

ICU RN	Name:	Signature:
RN Escort/Anaesthetist	Name:	Signature:

To Follow

• Document immediate plan of care.		
• Call for CXR to confirm line and tube placement		
• Obtain 12-lead ECG and analyse		
• Take routine bloods: ABG, full blood count, EUCs, Ca, Mg, PO ₄ , Coags, glucose and others as directed, send. Take admission swabs.		
• Continue with A-Z systematic review of the patient and associated actions required.		
• Continue to document progress contemporaneously on the ICU flowchart and in the patient's health care record as required.		

