Holy Cross Hospital

Policy Title	Managing a deteriorating patient
Policy Group	Clinical
Policy Owner	Director of Nursing Services
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Authors:	Gina Guo, Director of Nursing Services Rasheed Meeran, Director of Clinical Services
Cross References:	• Clinical Manual
Evidence:	• National Early Warning Score 2 (NEWS 2) 2017 • NICE guidance in Sepsis, Epilepsies, Spinal injury, Type 1 and 2 diabetes, Chest infections and Urinary Tract Infection
Computer file ref	O:risk management: policies: clinical
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Sign off by CEO	

1. INTRODUCTION

Holy Cross Hospital is a long-term neuro-rehabilitation hospital caring for patients who are suffering from various neurological conditions. Registered nurses (RNs) have an overall responsibility in safe managing patients on daily basis. Health Care Assistants (HCAs) are working under the supervision and direction of RNs. Patients at Holy Cross Hospital are highly vulnerable and susceptible to infection. It is critically important to recognise early signs of patient's deterioration, and take appropriate actions in a timely manner. This guidance highlights common causes when patients become unwell and a general management to follow.

2. SPECIFIC SCENARIOS

2.1 Sepsis:

- Recognise symptoms (one or more symptoms from the list below, often in combination)
    - Hypotension, tachycardia, pyrexia, confusion or disorientation, difficulty breathing, extreme pain, sweaty skin, reduced urine output

    - Especially if already have recent history pf being unwell/ treatment for infection + deteriorating
- Nursing assessment and examinations
    - Initiate NEWS 2 chart
    - Vital signs monitoring (Temperature, Pulse, Respiratory rate, blood pressure, oxygen saturation level)
- Required actions:
    - Contact duty doctor
    - Call 9(999) for an acute transfer where patient's RESPECT form is indicated
    - Increase the frequency of observations
    - Maintain patient's airway
    - Start oxygen therapy to maintain patient's target level
    - Administer PRN medications
    - Send sputum and blood samples to lab
    - Nebulisation if indicated
    - Monitor fluids intake and urine output
    - Start antibiotic(s) as per doctor's prescription
    - Inform the patient NoK

2.2 Chest infection:

- Recognise symptoms (one or more symptoms from the list below)
    - Pyrexia, tachycardia, increased respiratory rates, increased amount of secretions, thick, offensive and discoloured sputum, cough, desaturation, complaint of chest pain or discomfort, wheezing, short of breath
- Nursing assessment and examinations
    - Initiate NEWS 2 chart
    - Vital signs monitoring (Temperature, Pulse, Respiratory rate, blood pressure, oxygen saturation level)
    - Chest auscultation
    - Monitor secretions and chest status
- Required actions:
    - Administer PRN medications
    - Maintain patient's airway
    - Start oxygen therapy to maintain patient's target level
    - Send sputum and blood samples to lab
    - COVID swab
    - Nebulisation if indicated
    - Tracheostomy patient – regular tracheal inner cannula change, tracheal suctioning
    - Ventilated patient – CBG check, adjust ventilator settings within own scope of practice
    - Cough assist/ manual assisted cough
    - Contact duty doctor
    - Start antibiotic(s) as per doctor's prescription
    - Increase the frequency of observations
    - Inform the patient NoK
    - Chest X-ray as per doctor's instruction
    - Call 9(999) for an acute transfer where patient's RESPECT form is indicated

2.3 Urinary Tract Infection:

- Recognise symptoms (one or more symptoms from the list below)
    - Pyrexia, tachycardia, increased respiratory rates, desaturation, decreased urinary output, concentrated/ offensive urine, persistent urge to urinate, dysuria, complaint of lower back pain/ abdomen, haematuria, confusion, fatigue
- Nursing assessment and examinations
    - Initiate NEWS 2 chart
    - Vital signs monitoring (Temperature, Pulse, Respiratory rate, blood pressure, oxygen saturation level)
    - Monitor fluids intake and urine output
- Required actions:
    - Increase fluids intake where indicated
    - Administer PRN medications
    - Start oxygen therapy to maintain patient's target level
    - Ward urine dipstick
    - Send urine samples to lab
    - Bladder scanner
    - Contact duty doctor
    - Start antibiotic(s) as per doctor's prescription
    - Increase the frequency of observations
    - Inform the patient NoK
    - Call 9(999) for an acute transfer where patient's RESPECT form is indicated

2.4 Seizure:

- Recognise symptoms
    - Simple partial (focal) seizures: tingling in arms and legs, stiffness or twitching in part of body
    - Complex partial (focal) seizures: lose sense of awareness and make random body movements
    - Tonic-clonic seizures
        - tonic stage – lose consciousness, body goes stiff
        - clonic stage – limbs jerk about, may lose control of your bladder or bowel, may bite tongue or the inside of cheek, and might have difficulty breathing
    - Absences: lose awareness of surroundings for a short time.
    - Myoclonic seizures: some or all of body suddenly twitches or jerks, like had an electric shock.
    - Status epilepticus: lasts a long time, or a series of seizures where the person does not regain consciousness in between.

- Nursing assessment and examinations
    - Assess the type of seizures
    - Duration of seizures
    - Initiate NEWS 2 chart
    - Vital signs monitoring (Temperature, Pulse, Respiratory rate, blood pressure, oxygen saturation level)
- Required actions:
    - Administer PRN anti-epileptic medications

- Start oxygen therapy to maintain the patient's target level
- Maintain patient's safety
- Keep patient's airway patent
- Minimise environment stimulations
- Identify triggers, e.g. urinary tract infection, flashing lights
- Contact duty doctor
- Start antibiotic(s) where indicated as per doctor's prescription
- Increase the frequency of observations
- Inform the patient NoK
- Patient on long-term anti-epileptic medications, send blood to check if the anti-epileptic drug dose is maintained with its therapeutic level
- Start seizure chart
- For long-term management, discuss in ward round to consider neurology referral if no improvement
- Call 9(999) for an acute transfer if seizures continue and patient's RESPECT form is indicated

2.5 Autonomic dysreflexia,

- Recognise symptoms (one or more symptoms from the list below)
  - Complaint of headache, change in heart rate, excessive sweating, high blood pressure, muscle spasms, skin colour changes (paleness, redness, blue-grey skin colour)

- Immediate actions required
  - Administer Nifedipine sublingually
  - Closely monitor blood pressure

- Nursing assessment and examinations
  - Vital signs monitoring (Temperature, Pulse, Respiratory rate, blood pressure, oxygen saturation level)
- Required actions:
  - Try to identify triggers (common triggers include)
    - Blocked catheter
    - Constipation
    - Skin irritation
    - Infections
    - Discomfort
  - Ensure catheter is draining well
  - Administer PRN medication for constipation
  - Remove all objects that irritate patient's skin
  - Ward urine dipstick
  - Send sputum, urine and blood samples to lab to rule out infections
  - Increase the frequency of observations
  - Administer other PRN medications where indicated
  - Start oxygen therapy to maintain the patient's target level
  - Contact duty doctor

- Start antibiotic(s) after received doctor's prescription
- Inform the patient NoK
- Call 9(999) for an acute transfer where patient's RESPECT form is indicated

2.6 Diabetes (Hyperglycaemia/ Hypoglycaemia)

- Recognise symptoms (one or more symptoms from the list below)
  - Hyperglycaemia
    - Frequent urination, increased thirst, blurred vision, headache, nausea and vomiting, shortness of breath, dry mouth, confusion, abdominal pain
  - Hypoglycaemia
    - Pallor, shakiness, dizziness or light headedness, sweating, hunger or nausea, an irregular or fast heartbeat, fatigue, tingling or numbness of the lips, tongue or cheek, confusion, loss of coordination, difficulty speaking or slurred speech, muscle weakness and drowsiness
- Immediate actions required
  - Closely monitor blood glucose levels
  - Follow diabetes management protocols to either Hyperglycaemia or Hypoglycaemia
  - Administer PRN medications, e.g. Insulin or glucagon, etc.)
- Nursing assessment and examinations
  - Identify types of diabetes
  - Initiate NEWS 2 chart
  - Vital signs monitoring (temperature, pulse, respiratory rate, blood pressure, oxygen saturation level)
- Required actions:
  - Increase frequency of blood glucose monitoring
  - Contact duty doctor if no improvement
  - Repeat PRN medications if required
  - Monitor Nutrition, fluids intake and urine output
  - Start oxygen therapy to maintain the patient's target level
  - Send urine, sputum and blood samples to lab to rule out infections
  - Start antibiotic(s) to treat infection as per doctor's instruction
  - Increase the frequency of observations
  - Inform the patient NoK
  - Call 9(999) for an acute transfer where patient's RESPECT form is indicated

3 NEWS 2

3.1 NEWS2 (**Appendix 1**) is a well validated track-and-trigger early warning score system that is used to identify and respond to patients at risk of deteriorating. It is based on a simple scoring system in which a score is allocated to physiological measurements already undertaken when patients present to, or are being monitored in health care settings. The following six simple physiological parameters are included in the scoring system (www.england.nhs.uk accessed 17.5.2022):

- Respiratory rate
- Oxygen saturations
- Temperature
- Systolic blood pressure

- Pulse rate
- Level of consciousness

A score is allocated to each physiological parameter, the magnitude of the score reflecting how extreme the parameter varies from the norm. This score is then aggregated, and uplifted for people requiring oxygen.

3.2 Indications for use

The use of NEWS2 is encouraged (as an adjunct to clinical assessment but not a replacement) to support the assessment of physical deterioration of adults in community and primary care settings. Professionals can use NEWS2 to communicate vital signs data in a common language. The thresholds (**Appendix 4**) provide a guide to the severity of the illness. It is particularly important to document and hand over complete physiological observations when discussing or transferring potentially unwell patients across healthcare settings and between shifts.

NEWS2 score is one part of the clinical assessment. Ensure robust clinical judgement when assessing and escalating a patient care and treatment even if the NEWS2 score is normal.

NEWS2 is not to be used with pregnant women and patients aged under16.

3.3 Adaptations and modifications

The NEWS2 should not be modified or changed, But clinicians should complete the recording accurately and share with their colleagues (shift change) and with external professionals (doctors, paramedics, A&E staff etc) to manage the patient and plan escalation (**Appendix 2** frequency of observation and escalation plan & **Appendix 3** – Monitoring using NEWS).

All clinical staff using NEWS2 are warned to pay attention to patients who may have different threshold of baseline physiological parameters (e.g. lower oxygen saturation as their target saturation level).

If patients with mental health or learning disabilities refuse certain more observations, then those that can be calculated should be recorded and communicated appropriately with other professionals both internally and externally.

3.4 Training and resources:

NEWS2 scoring sheets can be completed by staff who have completed the NEWS2 training and are competent. Staff should discuss any questions with the Nurse in-charge if they are unsure of the parameters or about further escalation.

More information can be found at https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2 and

https://www.england.nhs.uk/ourwork/clinical-policy/sepsis/nationalearlywarningscore/news-frequently-asked-questions/#17-how-can-news2-be-used-in-a-community-setting

4. Responsibilities:

The Consultant in Rehabilitation medicine maintains overall responsibility for patients admitted to Holy cross Hospital. The Nurse in-charge of the ward will have responsibility to decide on escalation steps and to discuss with the duty/ on-call doctor or with the Consultant. In the absence of a Senior

Nurse, the Director of Nursing or Director of Clinical Service can be contacted via phone (contact details in the ward diary).

5. Review

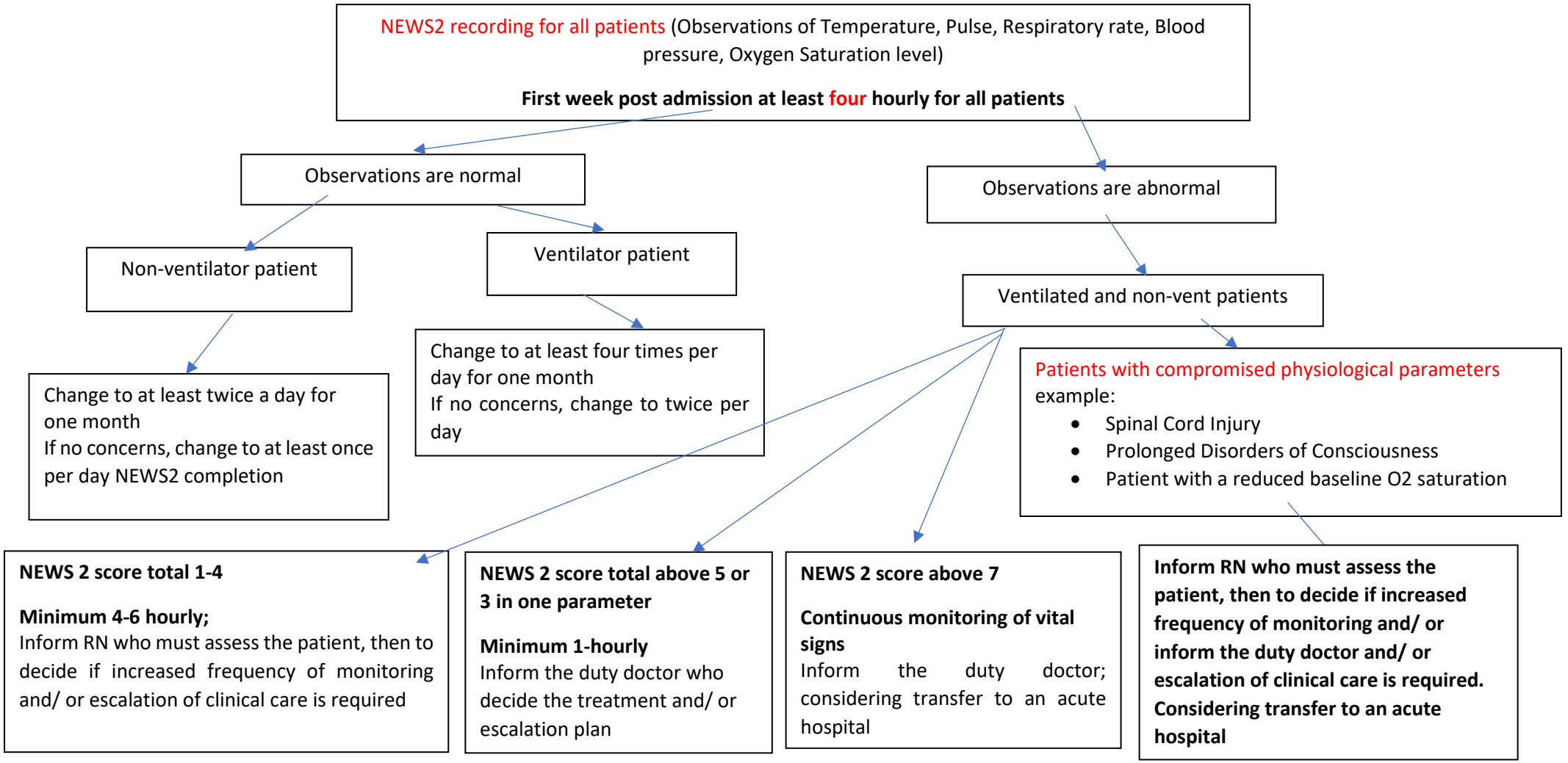
This policy has been reviewed for overt or implied discrimination within the scope of the Hospital's policies on equality and diversity and none was found. The policy will be reviewed every 2 years by the Medical Advisory Committee to ensure that the system described continues to provide an effective framework for the management of a deteriorating patient.

Appendix 1: NEWS2 scale

Physiological parameter	Score						
	3	2	1	0	1	2	3
Respiration rate (per minute)	≤8		9–11	12–20		21–24	≥25
SpO_2 Scale 1 (%)	≤91	92–93	94–95	≥96			
SpO_2 Scale 2 (%)	≤83	84–85	86–87	88–92 ≥93 on air	93–94 on oxygen	95–96 on oxygen	≥97 on oxygen
Air or oxygen?		Oxygen		Air			
Systolic blood pressure (mmHg)	≤90	91–100	101–110	111–219			≥220
Pulse (per minute)	≤40		41–50	51–90	91–110	111–130	≥131
Consciousness				Alert			CVPU
Temperature (°C)	≤35.0		35.1–36.0	36.1–38.0	38.1–39.0	≥39.1	

Appendix 2: Frequency of Observations and Escalation Plan

(This flow sheet is used in conjunction with the hospital "Managing a deteriorating patient" policy)



Appendix 3: Frequency of monitoring using NEWS

NEWS Score	Frequency of Monitoring	Clinical Response
0	Minimum 12 hourly	Continue routine NEWS monitoring
Total 1-4	Minimum 4-6 hourly	Inform registered Senior Nurse in-charge in the first instance. Senior Nurse then determines whether increased frequency of monitoring or action as per below guidance.
3 in a single parameter	Minimum 1 hourly	Senior Nurse to inform GP or Consultant. Senior Nurse to then arrange further clinical assessment by suitably qualified team member.
Total 5 or more Urgent Response Threshold	Minimum 1 hourly	NEWS over 5, discuss with GP once below recommendations followed, guidelines advise 1 hourly observations, score of 7 or higher means continuous observations.
Total 7 or more Threshold for Emergency response	Continuous monitoring of vital signs	Senior Nurse to immediately liaise with Medical Team responsible for patient (i.e. Consultant/ GP) with escalation to Emergency Care services to avoid delay in further assessment and treatment. If not for active treatment or escalation to Emergency/Acute care services then discussion with GP to plan onwards care and optimise quality of life. DNACPR and advanced care plans should be established and acknowledged.

Appendix 4: NEWS threshold and triggers

NEW score	Clinical risk	Response
Aggregate score 0–4	Low	Ward-based response
Red score Score of 3 in any individual parameter	Low–medium	Urgent ward-based response*
Aggregate score 5–6	Medium	Key threshold for urgent response*
Aggregate score 7 or more	High	Urgent or emergency response**

* Response by a clinician or team with competence in the assessment and treatment of acutely ill patients and in recognising when the escalation of care to a critical care team is appropriate.

**The response team must also include staff with critical care skills, including airway management.