

Recognising and Responding to Clinical Deterioration in a Hospice Inpatient Unit

A Quality Improvement Project Combining NEWS2 and Ceiling of Treatment (COT) Levels



Why was change needed?

A CQC inspection at another UK hospice highlighted challenges in recognising and escalating deterioration, prompting St Barnabas Hospice to proactively review and strengthen local processes.

- No standardised deterioration recognition process in the inpatient unit
- Reliance on individual clinician judgement and reporting
- Need for greater consistency in assessment, escalation and documentation
- Increasing complexity of hospice patients receiving active treatment

The result?
An opportunity to develop a standardised, proportionate and patient centred approach to recognising and responding to deterioration.

The St Barnabas NEWS2 + COT Framework

A structured, clinically meaningful escalation pathway

- PATIENT DETERIORATES**
Change in condition or concerns raised by staff, patient or family.
- CLINICAL ASSESSMENT**
ABCDE approach and record observations (vital signs and clinical signs).
- CALCULATE NEWS2 SCORE**
Use NEWS2 to quantify physiological risk.
- CONSIDER COT LEVEL (1-4)**
Ceiling of Treatment level guides what is appropriate and aligns care with patient goals.
- ESCALATION DECISION**
Follow escalation guide based on NEWS2 score and COT level.
- APPROPRIATE RESPONSE**
Implement plan, document actions and communicate clearly.

Balancing early recognition with the palliative care ethos - avoiding unnecessary medicalisation while keeping patients safe.

COT Levels

- For CPR, full escalation including hospital transfer.
- Not for CPR, for full escalation including transfer to hospital for admission.
- Not for CPR, not for admission to hospital but active treatment in hospice and would accept hospital outpatient appointments and scans.
- Not for CPR, for comfort measures only.

All escalation decisions are guided by the patient's goals of care, wishes and Ceiling of Treatment level.

What did we find?

	Audit Cycle 1 Jan - Apr 2024 (n = 31)	Audit Cycle 2 May - Jul 2024 (n = 19)
Deterioration document completed	97% (30/31)	97% (18/19)
Escalation decisions followed	90% (28/31)	100% (19/19)
Escalation within appropriate timeframe	87% (27/31)	100% (19/19)
Clear documentation of actions	87% (27/31)	100% (19/19)

Overall compliance improved from 90% to 100% between cycles.

Patient Cohort Profile

Audit Cycle 1 (n = 31)	Audit Cycle 2 (n = 19)
COT 2: 3 patients (10%)	COT 3: 6 patients (32%)
COT 3: 10 patients (32%)	COT 4: 13 patients (68%)
COT 4: 18 patients (58%)	

What this tells us

- Most hospice inpatients were admitted with COT 3 or COT 4 ceilings of treatment.
- The majority of patients were not appropriate for hospital admission or aggressive escalation.
- Many patients had physiological abnormalities at baseline, meaning NEWS2 scores must be interpreted within the wider clinical context.
- This supports the need for a deterioration framework that considers both baseline NEWS2 and Ceiling of Treatment, rather than relying on NEWS2 thresholds alone.

Key messages

Key principle: In hospice care, deviation from baseline may be more clinically meaningful than the NEWS2 score itself. We recognised that NEWS2 in isolation isn't appropriate for many palliative patients, so we developed a framework that focuses on deviation from baseline and interpretation within the patient's Ceiling of Treatment.

- NEWS2 cannot be used in isolation in hospice and palliative care patients.
- Many palliative patients have an abnormal NEWS2 score at baseline, meaning traditional escalation thresholds risk over triggering reviews and contributing to over medicalisation.
- A change from baseline NEWS2 may be more clinically meaningful than the absolute NEWS2 score itself.
- Combining NEWS2 with Ceiling of Treatment (COT) levels provides important clinical context and supports proportionate escalation.
- The system improved staff confidence and prompted earlier clinical review when deterioration occurred.

What we did

1	Staff education Structured teaching for all clinical staff on NEWS2, COT levels and the new escalation process's.	Mar - Apr 2024
2	Workbook A practical workbook with case studies and activities to reinforce learning	Mar - Apr 2024
3	Ward teaching One-to-one and small group teaching sessions on the inpatient unit to build confidence and application.	Mar - Jun 2024
4	New deterioration document NEWS2 + COT escalation document launched across the inpatient unit.	Mar - Jun 2024
5	Two audit cycles Retrospective audit of patient notes to assess compliance and impact.	Jan - Feb & May - Jul 2024

Next Steps

- Continue education for new staff and refreshers.
- Monitor compliance and outcomes.
- Share learning with other hospices.
- Embed into routine practice and governance.

Better care together