Recommendations

Recommendations are listed by chapter

4. Pre-ICU care

- **Trusts should ensure that consultant job plans reflect the pattern of demand of emergency medical admissions and provision should be made for planned consultant presence in the evenings (and perhaps at night in busier units).**
- **A consultant physician should review all acute medical admissions within 24 hours of hospital admission [8]. Regular audit should be performed against this standard.**
- **Trusts should ensure that consultant physicians have no other clinical commitments when on take. This may be through the development of acute physicians [8]. This will allow for greater involvement in the assessment and treatment planning of new admissions and the review of deteriorating inpatients.**
- **More attention should be paid to patients exhibiting physiological abnormalities. This is a marker of increased mortality risk.**
- **Robust track and trigger systems should be in place to cover all inpatients. These should be linked to a response team that is appropriately skilled to assess and manage the clinical problems.**

5. Patient observations and review criteria

- **A clear physiological monitoring plan should be made for each patient. This should detail the parameters to be monitored and the frequency of observations.**
- **Part of the treatment plan should be an explicit statement of parameters that should prompt a request for review by medical staff or expert multidisciplinary team.**
- **The importance of respiratory rate monitoring should be highlighted. This parameter should be recorded at any point that other observations are being made.**
- **Education and training should be provided for staff that use pulse oximeters to allow proper interpretation and understanding of the limitations of this monitor. It should be emphasised that pulse oximetry does not replace respiratory rate monitoring.**

6. Referral process

- **Consultant physicians should be more involved in the referral of patients under their care to ICU. The referral of an acutely unwell medical patient to ICU without involvement or knowledge of a consultant physician should rarely happen.**
- **It is inappropriate for referral and acceptance to ICU to happen at junior doctor (SHO) level.**
- **Any delay in admission to critical care should be recorded as a critical incident through the appropriate hospital incident monitoring and clinical governance system.**
- **All inpatient referrals to ICU should be assessed prior to ICU admission. Only in exceptional circumstances should a patient be accepted for ICU care without prior review.**

7. ICU admission process

- Trusts should ensure that consultant job plans reflect the pattern of demand for emergency admission to ICU and provision should be made for planned consultant presence in the evenings (and perhaps at night in busier units).
- Patients should rarely be admitted to ICU without the prior knowledge or involvement of a consultant intensivist.
- A consultant intensivist should review all patients admitted to ICU within 12 hours of admission [9]. Regular audit should be performed against this standard.

8. Patients who died

- Training must be provided for junior doctors in the recognition of critical illness and the immediate management of fluid and oxygen therapy in these patients.
- Consultants must supervise junior doctors more closely and should actively support juniors in the management of patients rather than only reacting to requests for help.
- Junior doctors must seek advice more readily. This may be from specialised teams e.g. outreach services or from the supervising consultant.

9. Outreach

- Each hospital should have a track and trigger system that allows rapid detection of the signs of early clinical deterioration and an early and appropriate response.
- Although this recommendation does not emerge from the findings in this report, NCEPOD echoes other bodies and recommends that trusts should ensure each hospital provides a formal outreach service that is available 24 hours per day, seven days per week. The composition of this service will vary from hospital to hospital but it should comprise of individuals with the skills and ability to recognise and manage the problems of critical illness [7,10,25,36].
- Outreach services and track and trigger systems should not replace the role of traditional medical teams in the care of inpatients, but should be seen as complementary.

10. Quality of medical records and audit

- All entries in the notes should be dated and timed and should end with a legible name, status and contact number (bleep or telephone).
- Each entry should clearly identify the name and grade of the most senior doctor involved in the patient episode.
- Resuscitation status should be documented in patients who are at risk of deterioration [40]. Each trust should audit compliance with this recommendation by regular review of patients who suffered a cardiac arrest and assessment of whether a ‘do not attempt resuscitation’ order should have been made prior to this event.

11. Pathology

- More care should be given to the formulation of the cause of death for presentation to the coroner and transfer into the medical certificate of cause of death.
- On this group of patients, consented autopsies should be sought more often to evaluate complex clinical pathology.
- In coronial autopsies on ICU patients, increased histopathological sampling should be undertaken to improve disease identification, with the consent of relatives, once the coroner’s requirement is satisfied.
- Pathologists should become more involved in the mortality meetings on ICU patients.