National Outreach Forum

Operational Standards and Competencies for Critical Care Outreach Services

Foreword

Critical Care Outreach Teams (CCOT) are one of the great successes of the developments following publication of Comprehensive Critical Care (DOH 2000). The recognition that practitioners from critical care had transferable skills that were relevant to the care of the general hospital patient was one of the light bulb moments of the last decade.

The extension of the natural multi-professional working practices of the best critical care units into the general hospital has brought nothing but benefit to patients and staff.

This set of operational standards puts the spotlight on the level of care to which NHS patients have the right to expect.

Dr Bob Winter
President of The Intensive Care Society

Foreword

On behalf of the National Early Warning (NEWS) Score Development and Implementation Group of the Royal College of Physicians, London, I very much welcome this framework for Operational Standards and Competencies for Critical Care Outreach, which has been developed by the National Outreach Forum (NORF). We all recognise the importance of delivering fast and efficient critical care to acutely ill patients to improve their outcomes in our hospitals.

A key principal underlying our recent development of the NEWS was the importance of standardisation to ensure high quality acute care wherever and whenever it is delivered. Likewise, this framework from the National Outreach Forum sets out to standardise the approach of critical care outreach services across the NHS.

This will provide guidance and a much needed template for teams with the ultimate objective of improving outcomes for those patients with acute illness. I was particularly pleased to see the emphasis on the importance of the necessity, and 24/7 availability of 'Outreach' and Acute Care Teams in all organisations, which melds in a timely way with the NEWS recommendations and will be essential to deliver some of the key elements of the clinical response.

What is clear is that professionals across all clinical disciplines recognise what is important to deliver a step wise change in the quality and consistency of acute clinical care in our hospitals with the ultimate objective of improving patient outcomes. The challenge, as ever, is to take the good words into clinical practice and implement these recommendations.

Dr Bryan Williams MD FRCP FAHA
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Introduction

This guidance is aimed at providing a standardised framework for the implementation and delivery of Critical Care Outreach Services and Acute Care teams across the United Kingdom.

The creation of this framework has been clinically led, is evidence based where possible and reflects current national practice and thinking.

This guidance was ratified at the National Outreach Forum 6th AGM on 4th November 2011 and has been endorsed by Dr Bob Winter, Intensive Care Society President and Professor Bryan Williams, Chair of the National Early Warning Scoring Design and Implementation Group - NEWSDIG.

The framework covers the seven core elements of Comprehensive Critical Care Outreach: **PREPARE** and outlines the desired requirements for each element.

The aim is to provide a nationally recognised framework that will assist existing and newly developing services. It is anticipated that a standardised approach will improve equity of access and quality of care as well as providing guidance to assist teams achieve their aspirations for service development.

Operational Standards and Competencies for Critical Care Outreach Services

1. NOrF Mission Statement and Purpose

1. To optimise the quality of the patients treatment, care and experience
2. To provide a representative forum for Critical Care Outreach Service providers and recipients across the country.
3. To meet the Department of Health's objectives for critical and acute care, and to ensure there is a strategic approach to delivery of Critical Care Outreach Services nationally, which reflects that of the National Strategy and those of the Critical Care Networks.
4. To underpin Critical Care Outreach practice and service development with the best evidence where it is available.

2. Definition

Comprehensive Critical Care Outreach (3CO) can be defined as ***"a multidisciplinary organisational approach to ensure safe, equitable and quality care for all acutely unwell, critically ill and recovering patients irrespective of location or pathway"***

3. Core Elements of Comprehensive Critical Care Outreach (3CO) as a continuum is exemplified by 7 core elements:

- **Patient Track and Trigger**
- **Rapid response**
- **Education, training and support**
- **Patient safety and clinical governance**
- **Audit and evaluation; monitoring of patient outcome and continuing quality care**
- **Rehabilitation after critical illness (RaCI)**
- **Enhancing service delivery**

4. Introduction

This document sets out an operational framework of standards and competencies for Critical Care Outreach and Acute Care Team Services. It responds to calls from National Outreach Forum (NOrF) members to provide a national document to standardise and benchmark existing services, to enable equity of access, and to provide guidance on future service development. The framework has been developed in a "RAG" rating format to allow users to self assess their service against the national recommendations thereby identifying areas that they may wish to develop.

RED — Not achieved and no current plans to review
AMBER — Partial provision and/or currently under development
GREEN — Fully achieved

5. Background

The introduction of Critical Care Outreach Services (CCOS) was recommended in Comprehensive Critical Care (2000) in response to the growing body of evidence demonstrating failure to recognise, and respond to obvious physiological deterioration. The aim was to ensure patients received timely intervention regardless of location, with Outreach staff sharing critical care skills with ward based colleagues to improve recognition, intervention and outcome. Subsequently there have been further recommendations for the implementation of CCOS inclusive of the Intensive Care Society (ICS) 2002, NOrF 2003, NCEPOD 2005 and the Critical Care Stakeholder Forum (CCSF) 2005.

In the absence of a national strategy for their implementation, CCOS and team configurations have developed on an ad hoc basis dependent upon perceived local need and resources available. Additionally, the level of investment in education and preparation of Outreach personnel also varies between organisations. The underpinning purpose of this document is therefore to re-address the absence of national guidance and provide a standardised operational framework of standards and competencies for Critical Care Outreach, Acute Care and Rapid Response Teams, whilst recognising the organisational links required with other hospital providers to facilitate provision of a robust 24hr service.

6. Origins of the Standards and Competencies Framework

This work has been led by the National Outreach Forum (NOrF) Executive Board in consultation with multidisciplinary expert members of NOrF. The document draws together the numerous statements and recommendations that have been published over the last 10 years and is set out using the PREPARE acronym which exemplifies the seven core elements of Comprehensive Critical Care Outreach (3CO).

Core Elements of Comprehensive Critical Care Outreach (3CO) as a continuum is exemplified by 7 core elements	RED	AMBER	GREEN	Qualifying notes
Patient Track and Trigger				
Rapid response				
Education, training and support				
Patient safety and clinical governance				
Audit and evaluation; monitoring of patient outcomes and continuing quality care				
Rehabilitation after critical illness (RaCi)				
Enhancing service delivery				

	RED	AMBER	GREEN	Qualifying notes
1. Patient Track and Trigger				
1.1. Trust wide use of NEWS or a locally validated Track and Trigger system that allows rapid detection of the signs of early clinical deterioration in all adult patients over 16yrs, except pregnant women & those requiring palliative care (NCEPOD, RCP, NOrF)				
1.2. The Track and Trigger system should include the following physiological parameters: HR, SBP, RR, Temp, SaO2, and AVPU. (NICE CG50, RCP, NOrF). Other 'stand alone' parameters may be used along side the chosen track and trigger system. e.g. Urine Output				
1.3. Vital observations with a total NEWS/EWS/MEWS score should be undertaken a minimum of 12 hourly, with escalation in frequency of recording as part of an agreed Trust wide graded response.				
1.4. Physiological observations should be undertaken and recorded by staff that have been appropriately trained and assessed as competent in monitoring, measurement, and interpretation.				
2. Rapid Response				
2.1. Trust wide use of a graded clinical response strategy consisting of 3 levels (low, medium, & high) (RCP, NICE 2007)				
2.2. Each level of response should detail what is required from staff in terms of observational frequency, skills and competence, interventional therapies and senior clinical involvement.				
2.3. It should define the speed/urgency of response, including a clear escalation policy to ensure that an appropriate response always occurs and is available 24/7.				

	RED	AMBER	GREEN	Qualifying notes
2.4. Who responds, i.e. the seniority and clinical competencies of the responder/s.				
2.5. The appropriate settings for on going care including access to monitoring equipment and critical care.				
2.6. The frequency of subsequent clinical monitoring				
3. Education Training and Support				
Critical Care Outreach Personnel				
3.1. Each organisation should ensure patients receive care from appropriately trained Critical Care Outreach / Acute Care Team / Rapid Response Team personnel				
3.2. Lead Practitioner should have a postgraduate qualification in critical care / acute care				
3.3. Senior practitioners ideally with a minimum of 3 years critical/acute care experience should deliver the Outreach service. Teams may consist of nurses, physiotherapists, doctors and other healthcare professionals.				
3.4. All Critical Care Outreach / Acute Care Team / Rapid Response Team practitioners should possess a clinically relevant post basic qualification and ideally be working towards an MSc in clinical practice or equivalent relevant clinical modules				
3.5. There must be a documented mandatory induction programme for all new staff members to the outreach team. An agreed learning contract to include annual competency based assessment of core and additional specific competencies				

	RED	AMBER	GREEN	Qualifying notes
3.6. The reference basis of training for Critical Care Outreach / Acute Care Team / Rapid Response Team personnel should be directed by the DH Competencies for recognising and responding to acutely ill patients in hospital (2007).				
3.7. All Critical Care Outreach/Acute Care Team / Rapid Response Team personnel must be trained and assessed as competent to function at a minimum of primary responder level, (some may develop particular skills to facilitate functioning at a secondary responder level)				
3.8. Each practitioner must be able to:- Perform a comprehensive physical examination and demonstrate the ability to recognise normal, deviation from normal findings in relation to the following systems Airway, Respiratory, Cardiovascular, Gastrointestinal, Renal, Neurological and Endocrine				
3.9. Assess and provide first line treatment for a patient with acute or developing critical illness and those requiring emergency assistance of above systems including sepsis				
3.10. Provide basic, immediate and advanced life-support in accordance with the level of response delivered.				
3.11. Recognise situations where consideration for withdrawal of treatment should be given and initiate review by appropriate medical staff, palliative care or end of life teams.				
3.12. Provide effective leadership and support for critical care teams and ward staff when caring for acutely ill ward patients with developing critical illness				
3.13. Ensure safe transfer and transport of the acutely ill patient. Ideally staff undertaking intra and inter hospital transfers should have received formal training in this skill. (ICS 2011).				

	RED	AMBER	GREEN	Qualifying notes
3.14. Understand clinical limitations, and enable direct referral to other members of the multidisciplinary specialist team including Physiotherapy, Pain team, Dietetics, Speech and Language Therapist, Psychologist.				
In addition to DH Competencies for recognising and responding to acutely ill patients in hospital (2007), specific and regularly demonstrated competencies should ideally include (NOrF 2003/11):				
3.15. Perform and interpret clinical findings on chest and abdomen auscultation				
3.16. Initiate laboratory clinical tests, obtain blood via venepuncture and correctly interpret results: Biochemistry, Haematology, Coagulation screening				
3.17. Prepare for and carry out intravenous cannulation.				
3.18. Record and interpret electrocardiograph (ECG)				
3.19. Assess the individual's level of consciousness, utilising AVPU, Glasgow Coma Scale.				
3.20. Obtain arterial blood gas sample and demonstrate ability to interpret results/recognise deviation from normal and report and treat accordingly.				
3.21. Request and interpret radiological examination e.g. chest X ray, abdominal X ray.				
3.22. Perform haemodynamic monitoring to obtain physiological measurements: continuous electrocardiograph, central venous pressure and arterial pressure monitoring				
3.23. Recognise indications for oxygen therapy and select appropriate device for administration of oxygen therapy.				

	RED	AMBER	GREEN	Qualifying notes
3.24. Administer oxygen therapy at rate and concentration as prescribed or as per patient group directive.				
3.25. Establish Non-Invasive Ventilation Therapy on patients in respiratory failure and assist in subsequent management.				
3.26. Administer intravenous fluids as per patient group directive / or as an independent prescriber				
3.27. Possess and demonstrate effective communication skills facilitating clear goal setting between all levels of the multi-disciplinary team, patients and significant others.				
3.28. Use of effective communication tools by all staff e.g. RSVP/SBAR				
3.29. Document and communicate clear patient monitoring plans in medical notes				
3.30. Possess and demonstrate effective ability to manage conflict and breaking bad news				
Additional competencies may include all or some of the following (depending on organisational clinical need).				
3.31. Perform verification of expected death where DNACPR order in place				
3.32. Perform male and female urinary catheterisation.				
3.33. Assist with central line triage and insertion				
3.34. Undertake Non-Medical Nurse prescribing				
3.35. Assist with nocturnal respiratory support.				
3.36. Assist with intra hospital transfers of patients requiring additional tests or intervention				

	RED	AMBER	GREEN	Qualifying notes
3.37. Assist with emergency trans-thoracic pacing				
3.38. Be able to assess patients for and undertake changing of tracheostomy tubes, insertion of mini tracheostomies and decannulation.				
Hospital/Ward Based Personnel				
3.39. Each organisation should provide accessible educational support for registered and non-registered ward staff in caring for the acutely ill ward patient in line with recorder and first responder level outlined in DH competencies for recognising and responding to acutely ill patients in hospital (2007).				
3.40. All staff should be trained in the locally used Track and Trigger system and be aware of and be able to instigate the referral process.				
3.41. Clinical competencies should be considered dependent on service provision and senior support available, with annual monitoring via the appraisal / PADR system				
3.42. Clinical competencies for medical staff should be assessed regularly by senior clinicians				
3.43. Accurate record of nurse training maintained in relation to Acute Care competencies for both registered and non-registered nurses / practitioners				
4. Patient Safety and Clinical Governance				
4.1. Each organisation should deliver the seven core elements of Comprehensive Critical Care Outreach (3CO) PREPARE.				

	RED	AMBER	GREEN	Qualifying notes
4.2. Each organisation must have a clearly defined referral strategy including Critical Care Outreach/Acute Care Team / Rapid Response Team service to support acutely ill patient activity 24 hours 7 days per week				
4.3. Medical staff with critical care training must be available to support graded response				
4.4. Provision of continuous bedside support available to ward based staff when necessary (CCSF).				
4.5. Each organisation must have a clear Operational Policy for Critical Care Outreach/Acute Care Team / Rapid Response Team that delineates the team's remit and includes the seven core elements of comprehensive critical care outreach (3CO) PREPARE. This should be ratified at Trust Board level.				
4.6. Operational policy should include explicit guidance on patient referral to the team and referral onto other multidisciplinary professionals				
4.7. Consider Trust wide introduction of patient or carer activated calls to the Critical Care Outreach Team.				
4.8. Each team should have a systematic approach to policy protocol development and review utilising national and local guidance, and agreed by governing body within the Trust				
4.9. All national standards should be followed which relate to the acutely ill patient (where appropriate).				
4.10. Each team should have a system in place for reporting, investigating and learning from adverse incidents and near misses. This should feed into the Trust wide clinical governance process to facilitate Trust wide scrutiny of practice (Patient Safety First 2008).				

	RED	AMBER	GREEN	Qualifying notes
4.11. Each team should regularly participate in speciality based mortality & morbidity meetings (NCEPOD)				
5. Audit and evaluation; monitoring of patient outcomes and continuing quality of care.				
Ideally all Critical Care Outreach Teams to participate in the "National Critical Care Outreach Activity Outcome Data Set" (NOrF 2011). ***Essential monthly data collection should include:***				
5.1. Number of inpatient calls to the cardiac arrest team				
5.2. Critical care "Follow-ups"				
5.3. Number of individual patients followed up after critical care discharge				
5.4. Number of clinical reviews (visits) for patients followed up after critical care discharge				
5.5. Early re-admissions to critical care (within 48 hrs of discharge).				
5.6. In Patients - either in critical care or being followed up after critical care (triggers or referrals)				
5.7. Number of calls to Outreach				
5.8. Number of individual inpatients referred to Outreach				
5.9. Number of individual patients attended by Outreach				
5.10. Number of clinical reviews (visits) for non-critical care referred patients				
Desirable monthly data collection should include:				
5.11. Hospital standardised mortality ratio.				

	RED	AMBER	GREEN	Qualifying notes
5.12. Median Outreach response time.				
5.13. Median "Score–2–door" time. Oglesby et al (2011)				
5.14. Median length of stay (survivors post critical care).				
5.15. Hospital mortality amongst critical care survivors				
5.16. Number of monthly hospital admissions				
5.17. An audit of compliance with performance standards must be fed back to Trust Boards and Networks including compliance with CG50				
5.18. Each trust should develop an audit tool to assess utilisation of their Track and Trigger and graded response system with clear governance procedures for action of poor compliance trust wide				
5.19. Undertake annual patient & carer satisfaction surveys (CCSF)				
6. Rehabilitation after critical illness (Follow-up)				
6.1. This may be undertaken by different teams locally but the process must include compliance with the NICE 83 guidelines "Rehabilitation after a period of critical illness" ensuring rehabilitation and traditional medical and nursing care are aligned.				
6.2. Each Trust must have a rehabilitation post critical illness pathway / operational policy. These should reflect the NICE 83 guidance with clear line accountability but be relevant and achievable within their organisation. This should be aligned to the Network wide Racy pathway where one exists				
6.3. All organisations must involve an expert patient or patient advisor groups e.g. ICU Steps in designing, formulating and reviewing local guidance				

	RED	AMBER	GREEN	Qualifying notes
6.4. Each Trust should provide regular audits (minimum annually) that measure the compliance with CG83 rehabilitation following critical illness, reviewing and adapting service delivery as required				
6.5. Each organisation should provide awareness training, educational support and supervision or mentoring for registered and non registered ward staff in the requirements and holistic approach to rehabilitating the critically ill patient				
6.6. Clinical experts should devise the rehabilitation plans for patients establishing clear time orientated interventions that can be followed and implemented by all ward staff who hold the competencies to fulfil these requirements.				
7. Enhancing service delivery				
Staffing Requirements				
7.1. Separately rostered Critical Care Outreach team available 24 hours per day, 7 days a week (NCEPOD, CCSF, NOrF).				
7.2. Sufficient staff to deliver 3CO/PREPARE 24 hours per day, 7 days per week				
7.3. Critical Care Outreach team support by sessional commitment from Consultant Intensivist or consultant in Acute Care Medicine				
7.4. Shared trainee medical staff with critical care units and acute care who have no responsibilities other than those directly related to providing the graded response				
7.5. Senior Physiotherapist with sessional commitment to Critical Care Outreach sufficient to follow up patients discharged from critical care and receive appropriate referrals.				

	RED	AMBER	GREEN	Qualifying notes
7.6. Allied health professionals (pharmacy, dietetics, speech and language and occupational therapy) available for Critical Care Outreach referrals				
Organisation				
7.7. Nominated lead of service at Trust Board level with appropriate communication cascade (Comprehensive Critical Care DH 2000).				
7.8. Lead Medical Consultant with a qualification in either intensive care or acute care speciality to support service development and delivery.				
7.9. Lead Practitioner and Consultant integral to Critical Care Delivery Group to facilitate Trust wide discussion on acute care ward based issues.				
7.10. Mechanisms in place to ensure full engagement of ward based colleagues (e.g. “Link Nurse System”).				
7.11. Mechanisms in place to ensure views and opinions of patients and cares are reflected in service development.				
7.12. Full engagement with regional Critical Care Network				
7.13. Critical Care Outreach / Acute Care / Rapid Response Teams should regularly review service provision to facilitate proactive approaches in order to match service configuration against local demands. These should be reflected in the operational policy				

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