Quality and Operational Standards for the Provision of Critical Care Outreach Services

National Outreach Forum

December 2020
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### ENDORSING ORGANISATIONS

- Critical Care Networks-National Nurse Leads
- Intensive Care Society
- UK Critical Care Nursing Alliance
Foreword

This is a very timely document. Critical Care has been faced with significant challenges this year, critical care outreach teams have stepped up and helped us cope with this unprecedented surge of critically ill patients. I have been fortunate to work with a critical care outreach team for 20 years since they were first recommended in Comprehensive Critical Care published in 2000. I have seen how the team embeds critical care as a core service in our hospital. They support ward staff in recognition of patient deterioration empowering them as peers to escalate their concerns, support patients, their relatives and staff in the care of patients after discharge from critical care and are our bridge to other specialty teams. I cannot imagine working without them.

When visiting critical care units in deep dives for the Getting It Right First Time (GIRFT) project I was surprised and concerned to discover that not every unit was in the same position. Many units are only able to provide a daytime service and some only weekdays, 1:7 hospitals do not have any outreach service at all either because they have been unable to attract funding or because they are not convinced of the benefit of an outreach team.

Most clinicians who have worked with a well-functioning outreach team see and feel the benefit offered to patient care and would be very reluctant to lose the service, however it has been difficult to quantify this benefit using conventionally collected data. There are many possible reasons why this might be including the lack of a standardised offering from the team in every hospital. There is variation in team members, team skills, their training and their relationship with the critical care unit. Most teams have developed organically as staff, training and resource become available developing their own systems, protocols and relationships. A key feature of GIRFT is to look at variation and find evidence of good practice which can be shared.

I am very pleased to see these Quality Standards being developed and hopefully adopted nationally. They are the result of many years of service development work by the National Outreach Forum building on experience from many hospitals. I would urge all units to have an outreach team preferably 24/7, in smaller units where night-time work is shared with Hospital@Night these standards will support training of non-critical care team members.

Units can review their team against these operational and quality standards, and work towards a more standard service to support and allow benchmarking of services and facilitate programmes of continuous quality improvement.

Dr Anna Batchelor
Clinical Lead for the Adult Critical Care GETTING IT RIGHT FIRST TIME
The National Outreach Forum

The National Outreach Forum (NOrF) was formed back in 2004 by a group of professionals involved with the first Critical Care Outreach teams. Since then it has evolved into a multi professional interest group that seeks to promote excellence in the care of acutely ill adult and paediatric patients.

NOrF provides a representative forum for Critical Care Outreach, Rapid Response, Medical Emergency, Acute Care Teams or equivalent services, and also providers and recipients of these services, to express opinions, share resources and work collaboratively. We will continue to strive to optimise the quality of care for the acutely ill and deteriorating patients, adults and children, and their families.

The National Outreach Forum Mission Statement and Purpose:

- To optimise the quality of treatment, care and experience of patients.
- To provide a representative forum for Critical Care Outreach or equivalent providers and recipients across the country.
- To underpin Critical Care Outreach practice and service development with the best evidence where it is available.
- To ensure there is a strategic approach to the delivery of Critical Care Outreach Services or equivalent nationally.
- To meet the National Health Service objectives for critical and acute care services.

The term *Critical Care Outreach Services or equivalent (CCOS)* is used in this document to represent all the services and teams that with different names are responsible for the coordination of prevention, detection and response to the deteriorating hospital patients.
Introduction

The National Outreach Forum Quality and Operational Standards are aimed at providing guidance for the provision, implementation and delivery of Critical Care Outreach (CCO) or equivalent services across the United Kingdom.

The first National Outreach Forum Operational Standards and Competencies for Critical Care Outreach Services was published in 2012. This is the second iteration and builds upon gained knowledge and experience of service development, latest evidence and importantly, patient reported clinical needs. It has a clinically directed focus and reflects current national practice and thinking. The standards framework covers the core elements of Comprehensive Critical Care Outreach and outlines the desired requirements for each element. The competency framework has been removed and a national competency document and professional development framework is being published in 2021.

The aim is to provide a nationally recognised set of core operational and quality standards which will be used to standardise approaches and improve equity of patient access to Comprehensive Critical Care Outreach services. Additionally, the benchmarking tool will assist providers and commissioners of CCO services to identify areas requiring investment and development.

We recognise that CCO or equivalent services have different configurations. However, it is imperative that a foundation and core standards are established in order to provide a robust service that achieves the aims of the recognition and response to the deteriorating ward patients as well as support the pre and post-pathway of those patients admitted to and discharge from critical care.
1. Definition of Comprehensive Critical Care Outreach

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* (NOrF 2012).

2. Background

The introduction of Critical Care Outreach Services was recommended in Comprehensive Critical Care (DH 2000) in response to the growing body of evidence demonstrating failure to recognise and respond to physiological deterioration of patients on the general wards.

Subsequently, there have been further recommendations for the implementation of a service that provides support for the recognition and management of the deteriorating patient as well as support for the step down of patients from critical care areas to the wards. National Institute of Health and Clinical Excellence guidance in 2018 suggested Trusts should consider providing access to critical care outreach teams (CCOTs) in hospitals, focusing on acute deterioration, and this should be accompanied by local evaluation of CCOS.

Now extending to between 80-85% of Trusts in the UK, and reviews of the evidence have called for clarity around configuration of CCOS. In the absence of a national strategy for their implementation, critical care outreach or equivalent services have developed on an ad-hoc basis with different team and service configurations dependent upon perceived local need and resources available. Additionally, the level of investment in education and preparation of critical care outreach personnel also varies between organisations.

The origin of the Operational Standards for Critical Care Outreach work was led by the National Outreach Forum (NOrF) in 2012, in consultation with multidisciplinary expert members from different stakeholder groups.
The underpinning purpose of this Quality and Operational Standards for CCO document is to re-address the absence of national guidance and provide a standardised operational framework of standards for critical care outreach, rapid response and acute care teams or equivalent, whilst recognising the organisational links required with other hospital services to facilitate provision of a robust 24hr service.

The Quality and Operational Standards for Critical Care Outreach 2020 draws together numerous statements and recommendations that have been used and published over the last 20 years. They are set out using the PREPARE acronym which exemplifies the seven core elements of Comprehensive Critical Care Outreach.

3. How to use the Quality and Operational Standards for Critical Care Outreach Services

This document sets out a framework of quality and operational standards for Critical Care Outreach services or equivalent.

It responds to calls from members of the National Outreach Forum (NOrF) and critical care outreach community, 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 produced a self-assessment tool available at the National Outreach Forum website (www.norf.org.uk) in a Red-Amber-Green rating format, to allow users to self-assess their service against the national recommendations, thereby identifying areas that they may wish to develop.

<table>
<thead>
<tr>
<th>RED</th>
<th>Achieved less than 50% of the time with no current plans to review</th>
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<tbody>
<tr>
<td>AMBER</td>
<td>Partial provision and/or currently under development, only achieving the element between 50-80% of the occasions</td>
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<tr>
<td>GREEN</td>
<td>Achieving the individual elements in more than 80% of the time</td>
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4. Comprehensive Critical Care Outreach as a continuum is exemplified by 7 core elements:

- **P**atient Track and Trigger
- **R**apid response
- **E**ducation, training and support
- **P**atient safety and clinical governance
- **A**udit and evaluation, monitoring of patient outcome and continuing quality of care
- **R**ehabilitation after critical illness (RaCI)
- **E**nhancing service delivery, through quality improvement, collaboration and co-ordination
1. Patient Track and Trigger

1.1 Physiological observations must be undertaken and recorded by staff that have been appropriately trained.

1.2 Physiological observations must be reviewed and escalated if appropriate, by staff trained in the interpretation of the significance of abnormalities.

1.3 The National Early Warning Score (NEWS*) track and trigger system (TTS) must be used for all adult patients over 16 years, except pregnant women on 2nd-3rd trimester, and those requiring care at the end of life.

1.4 There is ongoing work for national track and trigger scores for children and maternal services. While these are being developed and agreed, locally or regionally agreed track and trigger for children and maternal services must be used (such as PEWS). A move towards electronic TTS is recommended

1.5 The frequency of observations must be determined by the clinical condition of the patient and confirmed by a senior clinician with appropriate competencies. Observations must be performed at least 12-hourly with escalation protocols determined locally based upon the nationally agreed National Early Warning Score*trigger points for low, medium and high risk.

1.6 Other triggers such as urine output, sepsis alerts, hospital-acquired infection alerts, acute kidney injury alerts and cause for concerns from staff, should be used as a part of a multi-trigger system.

1.7 A system for patient and carers (patient/family-activated escalation) to trigger a review if any concern should be implemented.

*Latest version of NEWS that applies nationally and in devolved nations
2. Rapid Response

2.1 The use of a graded clinical response strategy consisting of 3 risk levels: low, medium and high, must be adhered to, as recommended in NICE CG50\textsuperscript{7,21}.

2.2 Each level of response must detail what is required from staff in terms of observational frequency, skills and competence, interventional therapies and senior clinical involvement.

2.3 The urgency of response must be defined, including a clear escalation policy to ensure that an appropriate response always occurs and is available 24/7 365 days a year.

2.4 Critical Care Outreach or equivalent services team members, that is, nurse and AHP practitioners, must have the appropriate skills and competencies to be able to respond to the deteriorating patient. These competencies must follow a national framework set of competencies or a recognised local or regional structured plan.

2.5 Critical Care Outreach or equivalent teams must have the necessary equipment and resources to be able to respond to the deteriorating patient.

2.6 Systems for patient and family activation of Critical Care Outreach response are highly recommended\textsuperscript{19,20}. 
3. Education, Training and Support

3.1 Each organisation must ensure patients receive care from appropriately trained, adequately prepared and supported CCO practitioners. This should include:
   - An induction programme
   - Access to and provision of a training programme
   - Annual competency-based assessment

3.2 All CCO practitioners must have demonstrable evidence of post-registration study in relevant clinical modules in critical care and/or acute care which include history taking, clinical examination and diagnostic skills.

3.3 All CCO practitioners must be Advance Life Support providers (or paediatric equivalent), for adults and/or paediatrics according to their scope.

3.4 CCO practitioners must be able to assess and provide first line treatment for the acutely ill and deteriorating hospital patient and be able to demonstrate continuous competency in the management of medical and surgical emergencies.

3.5 CCO practitioners must ensure safe transfer and transport of the acutely ill patient. Practitioners undertaking intra- and inter- hospital transfers must have received formal training in these skills.

3.6 It is highly recommended that CCO practitioners become independent prescribers.

3.6 CCO practitioners must be trained in the recognition of, and involvement in situations where consideration for withdrawal of treatment should be given and initiate review by appropriate senior clinicians (consultant-level), palliative care or end-of-life teams 22-26.

3.7 CCO practitioners must be able to provide effective leadership and support for critical care teams and ward staff when caring for acutely ill ward patients.

3.8 CCO practitioners must understand their clinical limitations and enable direct referral to other specialists such as senior clinicians, physiotherapists, pain team, dietetics, speech and language/occupational therapists and the psychology team.

3.9 CCO practitioners must be able to demonstrate continuous professional development and engagement with annual appraisal exercise.

3.10 Where there is an expected corporate function to deliver education and training to the organisation, CCO Teams must be given the necessary resources and support.
4. Patient Safety and Clinical Governance

4.1 Each organisation should deliver the seven core elements of Comprehensive Critical Care Outreach - PREPARE

4.2 These elements must have a clearly defined referral strategy including Critical Care Outreach/Acute Care Team/Response Team service to support acutely ill and the deteriorating patient activity 24 hours 7 days per week.

4.3 Each organisation must have a clear Operational Policy for Critical Care Outreach or equivalent teams that delineates the team’s remit and includes the seven core elements of Comprehensive Critical Care Outreach - PREPARE. This must be ratified at organisation Board level.

4.4 Each team must regularly link in with patient safety teams within their organisation. This will enable two-way communication of any issues around patient safety themes.

4.5 Each team must have a system in place for reporting, investigating and learning from adverse incidents and near misses. This needs to feed into organisation-wide clinical governance processes to facilitate across organisation scrutiny of practice.

4.6 Each team must regularly participate in specialty-based mortality and morbidity meetings or panel reviews.
5. Audit, evaluation, patient outcomes and quality of care

5.1 Critical Care Outreach or equivalent must participate in the collection of a set of mandatory and desirable data such as the National Outreach Forum Minimum Dataset latest available version (www.norf.org.uk). There are broader metrics published by the International Society of Rapid Response Systems for rapid response systems that are synergistic with these20. Some of the suggested data to collect is as follows:

- Number of individual patients following critical care discharge
- Number of clinical reviews (individual visits) for patients followed up after critical care discharge
- Early re-admissions to critical care (within 48 h of discharge)
- Patients followed up after triggers or referrals
- Number of calls to Critical Care Outreach
- Number of patients referred to Critical Care Outreach
- Number of individual patients attended by Critical Care Outreach
- Number of clinical reviews (visits) for non-critical care referred patients
- Number of inpatient calls to the cardiac arrest team per 1000 admission
- Number of potentially preventable cardiac arrests
- Number of DNACPR and Treatment Escalation Plans discussions initiated/involved in
- Timely review of deteriorating patients by ward team
- Timely referral of deteriorating patients to Critical Care Outreach
- Timely interventions to deteriorating patients by Critical Care Outreach
- Timely admission of deteriorating patients to critical care when appropriate
- Number of referrals to Critical Care Outreach by patients or carers
- Length of stay in critical care and in hospital for those patients that had met deterioration criteria
- Source of referral
5.2 Critical Care Outreach or equivalent services must be part of regular service evaluation and gap analysis against recognised standards such as the ones set on this document. Quality Improvement drives with a focus on CCOS are expected.

5.3 A process of peer review of Critical Care Outreach services is highly recommended. This may be part of broader critical care peer review, depending on the organisation of the CCOS.

5.4 Critical Care Outreach services should participate in regular (minimum annually) collection of patient and staff satisfaction and experience via focus groups and/or surveys about the service.
6. Rehabilitation after critical illness (Follow-up)

6.1 Each organisation must have a rehabilitation post critical illness pathway operational policy. These should reflect the NICE CG83\textsuperscript{27} guidance and QS158\textsuperscript{28} with clear lines of accountability and be relevant and achievable within their organisation.

6.2 Follow up of all patients who have been discharged from critical care after a stay of more than 24 hours is required within 1 day after discharge or sooner if required.

6.3 Ongoing individualized patient rehabilitation according to the organisation Rehabilitation after Critical Illness (RaCI) pathway must continue on the ward environment. Where this is the remit of a separate team, such as a Critical Care Liaison, RaCI or therapy teams, clear lines of communication need to exist.

6.4 Critical Care Outreach may be a formal part of the rehabilitation service provision, such as delivering post-critical care discharge liaison care, or they may be distinct services. Regardless of model, Critical Care Outreach should adhere to the principles of critical illness rehabilitation and support recovery trajectories.

6.5 Critical Care Outreach should involve step-down provision, supporting patients recently discharged from critical care to prevent these at-risk patients from being re-admitted to critical care or to support alternative pathways of care through advanced care/end-of-life planning\textsuperscript{26}.

6.6 Critical Care Outreach should input into the multi-disciplinary review of post-critical care ward patients’ goal setting and recovery care plans, prior to discharge home, liaising with the critical care recovery services.
7. Enhancing service delivery

7.1 A separately rostered Critical Care Outreach or equivalent team must be available 24 hours per day, 7 days a week, 365 days a year.

7.2 A medical consultant with a qualification in either critical care or an acute care specialty must support the development and delivery of Critical Care Outreach or equivalent services. Dedicated sessions are required to do this and should be identified within his/her job plan.

7.3 Critical Care Outreach or equivalent must demonstrate involvement with patient and public groups to ensure that their views and opinions are reflected in the development of the service.

7.4 Critical Care Outreach or equivalent must demonstrate engagement and involvement with relevant stakeholders in their organisations, such as organisation wide critical care or equivalent groups and outside their organisations such as their Critical Care Network.

7.5 Critical Care Outreach or equivalent teams should be able to demonstrate involvement with and report to local commissioners.

7.6 Size and composition of the Critical Care Outreach team must be appropriate to the hospital activity and acuity as well as other roles of the team, e.g., H@N, pain, rehabilitation.

7.7 Critical Care Outreach service provision must be reviewed regularly to enable a proactive approach and development to service configuration against local demands. These must be reflected in their operational policy.

7.8 Critical Care Outreach should participate actively in research to develop the evidence-base around CCOS and impact.
References


