Cheshire and Mersey Critical Care Network
Annual Report
2023-2024

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Foreword

The Core team of the Cheshire and Mersey Critical Care Network (CMCCN) consists of CMCCN Lead Nurse, sessional input from a Medical Lead alongside the Operational Delivery Network Director and Administration and Project Support Officer who both also support the activity of the Cheshire and Mersey Major Trauma Network (CMMTN).

The network team subsequently leads, coordinates, and supports activities and developments engaging clinicians and other stakeholders within 12 critical care units with CMCCN which is pivotal to the delivery of a networked approach to delivering cross region critical care clinical pathways.

Within in the past year the team has had a change of medical leadership. Dr Jon Walker who had been CMCCN medical lead for 5 years stepped down in March 2024 and we wish to thank him for all his hard work and leadership throughout the years. Dr Tristan Cope commenced as CMCCN Medical Lead in March 2024, and we welcome him to the team and look forward to working with him.

CMCCN are unique in also having the Local Service Improvement Lead Role (LSIL). The role of the CMCCN LSIL's is pinnacle to the service improvement work delivered within CMCCN units and it has been highlighted as an exemplary model of Quality Improvement (QI) nationally. The LSILs role will be discussed in more detail within this report.

Up until end of March 2024, CMCCN provided funding to second a Local Service Improvement Lead (LSIL) within 10 out of 12 Critical Care Units across the region. Due to a reduction in the ODN's budget from April 2024, it was no longer viable for CMCCN to fund the LSIL's positions. Fortunately, due to the proven value of the role, all units that were previously in receipt of funding confirmed that they will utilise internal mechanisms and funding to continue to aim to support and protect the roles and time to support audit and quality improvement activity.

Although this is a very positive development the network team are cognisant of the fact that this will potentially dilute the arrangement and the level of influence the network will have going forward in ensuring the LSIL's time is protected, particularly during periods of high activity or staffing shortages on the units.

To account for the impact of these changes the CMCCN team will retain a leadership and coordination function and there has been a rationalisation to the SILS audit programme.

Historically Cheshire and Mersey (C&M) have used part of its budget to directly source designated data management support, which has been provided by a long-standing service level agreement (SLA) with NHS Arden and GEM (AGEM).

Previously some of this capacity has been used to support the analysis and reporting of findings from the critical care networks peer review and service specification review programme used to monitor compliance against the National Specification for Adult Critical Care and GPICs V2.1

In addition to this, the resource has been used to analyse and report audit and other service evaluation and quality assurance data collected by unit based Local Service Improvement Leads (LSILs)

In parallel, with the changes to the funding of the CMCCN LSIL'S role, and the reduction in network budget, it also meant that the long-term SLA with AGEM was under threat. Following submission of a case of need, NHSE have agreed to fund continuation of the arrangement with AGEM for a further 12 months (April 2024-March 2025) on the provision that a "proof of concept scoping exercise" was undertaken to explore the opportunities and viability of AGEM being able to support all three NW Adult Critical Care and Major Trauma Networks.

In accordance with this, activity has commenced to quantify all data management and business intelligence activity undertaken across all three networks and to map out all the various data systems and sources aligned to adult critical care on a local, regional, and national basis.

The overarching objective will be to optimise opportunities to source data and information from existing platforms to inform locally determined reports and dashboard that align to network requirements relating to activity, processes, and outcomes.

For audit and service evaluation activity where existing data sources are not available the plan will be to use more automated data collection and reporting tools to streamline processes and reduce the burden on staff time.

Regular reports relating to the progress and outputs of the project will be provided to NHSE who in term will determine the longer-term position regarding ongoing financial provision to support this essential network activity.

Critical care workforce is a continuing key priority for CMCCN, and we continue to undertake numerous workstreams around the recruitment and retention of the critical care workforce.

Rehabilitation for critical care patients is also a key priority – the majority of CMCCN units took part in an NHSE national rehabilitation survey in the summer of 2023 and there has also been a benchmarking report in relation to Allied Health Professional (AHP) roles in our critical care units and the provision of rehabilitation. This was a key concern in all our CMCCN peer reviews and specification reports for 2023. The CMCCN AHP group was reinstated, and benchmarking / gap analysis work was completed around the AHP provision within CMCCN unit. This work was led by the CMCCN Director and is referenced further in the report.

CMCCN continues to work closely with all units to ensure there is ongoing oversight of the Adult Critical Care nursing workforce particularly around retention and recruitment. In March 2024 in recognition of ongoing challenges within the nursing workforce a network wide retention survey, coordinated by the CMCCN lead nurse was undertaken. This was based on the 2023 National Critical Care Network Nurse Leads (CC3N) Critical Care Nursing Workforce Retention Survey. This received a high level of engagement and participation and has informed a range of themes and recommendations that have been shared at network and individual unit level. This will be followed up with a network report and follow up workstreams.

Maintaining health and wellbeing resilience of our critical care workforce post Covid continues to be a key priority for CMCCN this year and considerable work has been done by the CMCCN team to support our staff's mental health and wellbeing.

We also had a focus on wellbeing and education – due to monies given directly to the network by NW NHSEI to be spent to improve education within CMCCN units – we were able to temporarily boost educator numbers in some of our larger and busiest units for a six month period, send staff to national education and critical care conferences, boost educational resources for our units, provide wellbeing role training places and host a CMCCN wellbeing and education conference in September 2023. Further details will be provided later in this report.

A continuing core priority of CMCCN through the 2023-2024 period has been on proactively engaging with stakeholders and network teams across the Cheshire and Mersey region with focus on continuing and strengthening critical care service delivery, Quality Improvement and audit calendar. All CMCCN stakeholder groups are active in CMCCN workstreams and will contribute to the annual CMCCN workplan.

Despite the changes the Network Team continues to utilise its centralised function, knowledge, and experience to support and facilitate the coordination and continued development of the

critical care service. Some members of the CMCCN team continue to hold chair roles of national critical care professional bodies and the lead nurse is a member of the national critical care Clinical Reference Group (CRG) and contributes to other national workstreams and forums.

Fundamental to this is the robust peer review and service specification process. CMCCN led this twofold process with peer reviews being undertaken between October 2022 and April 2023 followed by service specification review meetings during the period May to July 2023. Each unit received an individual report with specific actions and an overall CMCCN benchmarking report was also created and published. CMCCN have arranged visits with all CMCCN units commencing in Summer 2024 to follow up on individual peer review and service specification report action plans. A proposed review of the CMCCN peer review and service specification process and review of all peer review and associated documents will take place late 2024 once the new version of GPICs has been published.

The last set of CMCCN peer reviews generated common themes in all CMCCN units. These are workforce education particularly around the practical / simulation component of transfer training, workforce recruitment retention and skill mix particularly within nursing and AHP, Delayed Discharges and provision of critical care rehabilitation for patients 7 days per week. The peer reviews also act as a means of sharing good practice from units within CMCCN and all exemplar practice is highlighted in the peer review feedback process. Good practice is then disseminated across the network within our network forums.

This report provides a summary of CMCCN activity and achievements over the past year. The CMCCN team welcomes feedback on its content and format; please send this to the CMCCN Lead Nurse, Karen Wilson – karen.wilson93@nhs.net

About CMCCN

Cheshire & Mersey Critical Care Network (CMCCN) is one of the largest in England. It covers Cheshire & Mersey, and the Isle of Man. CMCCN covers 12 NHS critical care units, Nobles Hospital on the Isle of Man and several additional level 1 providers including the independent sector.

The 12 NHS acute provider trusts range from large city centre critical care units with multiple specialities to small specialist trusts where critical care may be a large part of their in-patient population to DGHs providing general services to their local population. Nobles Hospital has

additional challenges due to its geographical isolation and the island's status as a Crown Dependency. Critical care outside the specialist centres is a less obvious but nonetheless essential part of the delivery of acute care. Table 1 below outlines the names of our main critical care stakeholders within CMCCN.

Hospital	NHS Trust
Aintree University Hospital	Liverpool University Hospital NHS Foundation Trust
Royal Liverpool University Hospital	Liverpool University Hospital NHS Foundation Trust
Countess of Chester	Countess of Chester NHS Foundation Trust
Liverpool Heart and Chest	Liverpool Heart and Chest NHS Foundation Trust
Walton Centre	Walton Centre NHS Foundation Trust
Leighton	Mid-Cheshire NHS Foundation Trust
Whiston Hospital	Mersey and West Lancashire Teaching Hospitals NHS Trust (Formerly St Helens and Knowsley NHS Foundation Trust)
Southport Hospital	Mersey and West Lancashire Teaching Hospitals NHS Trust (Formerly Southport and Ormskirk NHS Foundation Trust.
Liverpool Women's Hospital	Liverpool Women's Hospital NHS Foundation Trust
Warrington Hospital	Warrington and Halton Hospitals NHS Trust
Arrowe Park Hospital	Wirral University Teaching Hospital NHS Trust
Nobles Hospital	Manx Care

Table 1

CMCCN has delivered significant and consistent results over the past 20 years by initiating, facilitating, supporting, and monitoring service improvement for critically ill patients across organisational and professional boundaries. It has a high profile both locally and nationally as an exemplar of the network model; in addition, key members of the network team have experience of national leadership roles and achievements.

Critical care is an essential component of acute healthcare and a valued resource across the health economy. CMCCN provides an important link between commissioners and providers as well as providing expert advice in managing this expensive resource for the benefit of critically ill patients. In addition, the role of CMCCN is essential to enable critical care to be utilised for maximum benefit in managing major contingencies.

The role of networks is increasingly seen as vital to improving patient outcomes and the successful integration of clinical services across patient pathways. CMCCN continues to evolve (within resource limitations) and plays a crucial role in the provision of effective and efficient care for this highly specialist area of patient care.

We have been very fortunate in gaining and maintaining the collaboration and co-operation of our key stakeholders and would like to extend our thanks once again, not only to those individuals and organisations who provide critical care services but to patient representatives who have helped inform our work and to the past and present Critical Care Network Chairs and Board members whose support and guidance has been of inestimable value.

This report should be read in conjunction with the CMCCN LSILS report. We welcome comments on our existing and planned work and look forward to continuing our support for quality patient care with our stakeholders through the challenges ahead.

Introduction

National Context

Specialised Services Clinical Networks (SSCNs) previously known as Operational Delivery Networks (ODNs), are a team of health care services and professionals nationally mandated and commissioned to improve outcomes through strong clinical relationships, co-ordinating patient pathways between providers across a healthcare system.

The Cheshire and Mersey Adult Critical Care and Cheshire and Mersey Major Trauma Networks form part of this network of networks, delivering a work programme determined by a national specification and in accordance with local, regional, and national priorities.

Both networks operate in accordance with the following core principles and objectives:

- Through clinically lead collaboration, support the coordination of care pathways between regional providers to ensure consistent, equitable access to specialist resources and expertise within Adult Critical Care services and across the Major Trauma pathway.
- Provision of impartial clinical advice and expertise to NHS England and Integrated Care System partners, including providers, to develop equitable, high standard services for patients and improve access and care outcomes.
- Facilitate comparative benchmarking, evaluation, audit, and service review to highlight any areas of unwarranted variance in quality-of-service provision, promoting consistency and standardisation of clinical service provision and adoption of best practice across all providers.
- Engaging with all relevant stakeholders to optimise patient outcomes and family experience through the efficient and effective use of collective resources available across the commissioned pathway.

National service specifications have been developed for all SSCN's which outline the deliverables expected of each SSCN, defined within seven core areas of function as summarised in the table 2 overleaf:

Network Functions.
1. Service Delivery: ***the network's role in planning and managing capacity and demand.***
All networks should agree pathways of care that will support efficient and effective flows of patients, address variation within the network and assure equity of access for patients based on need. Networks play an important role in proactively managing capacity and patient flow particularly at times of demand surge and including supporting mutual aid.
2. Resources: ***the network's role in stewardship of resources across the whole pathway and minimising unwarranted variation***
The clinical stewardship approach can also be applied by networks: taking responsibility for shaping the whole patient pathway in ways that reduces demand by improving health, reduces inequalities, addresses unmet need, improves the effectiveness of care, and delivers better value. Such work will require networks to work closely with commissioners.

3. Workforce: ***the network's role in ensuring flexible, skilled, resilient staffing***
Networks have historically focussed on training and development, however this role can be extended, working with commissioners and providers, to support system-wide workforce strategy to ensure a flexible, resilient, agile, and skilled workforce.
4. Quality: ***the network's role in improving quality, safety experience & outcomes***
A focus on quality measurement, assurance and improvement is another foundational network function. This is supported by routine monitoring of metrics that capture quality and safety, experience, and outcomes as well as benchmarking and auditing of services as part of a comprehensive approach to driving continuing improvement. A key role for networks is to ensure that the requirements of the relevant national service specification and standards are being met by all providers within the Network.
5. Collaboration: ***the network's role in promoting working together at local, system and national level***
The move to integrated care has placed greater emphasis on collaboration across local systems, and effective collaboration underpins all a network's functions. The actions set out in relation to collaboration are essential to the work of all networks, acting as an enabler for other functions.
6. Transformation: ***the network's role in planning sustainable services that meet the needs of all patients***
Networks' focus on improvement includes roles in both steady incremental change and a focus on service redesign. Working with ICSs will give networks a greater opportunity to work with partners across the whole pathway to identify areas for service development and improvement. Networks may also take on a more prominent role in developing new models of care and providing clinical leadership for proposals for service change and reconfiguration.
7. Population health: ***the network's role in assessing need, improving inequalities in health, access, experience, and outcomes***
Networks have long worked to improve the health of their specific patients. In future we expect networks will have an increased focus on understanding the needs of the population, improving population health by supporting system-wide delivery of preventative health programmes, identifying, and addressing gaps in service provision and inequalities in access, experience, and outcomes.

Table 2.

National Operational Objectives for the Adult Critical Care SSCN are:

In addition to the overall objectives above, the strategic objectives of the Adult Critical Care Specialised Services Network are:

- Ensuring equitable access to high quality Adult Critical Care for any patient who requires it.
- Improving outcomes for patients
- Efficient pathways of care which demonstrate value for money.
- Sustainable and resilient services which are sufficiently resourced to respond to change.
- Transforming pathways of care to ensure timely access and egress, providing the right care to ensure positive patient outcomes.
- Collaborative working with key stakeholders to consider the current and future workforce needs and defining new models of working to support service transformation and expansion.
- Continual review of education and training in line with professional standards to ensure services are fit for purpose.
- Support critical care services in retention and succession planning.
- Ensuring there is a comprehensive data set which is easily accessible and includes sufficient detail on patient flow, demographics, case mix and volume to support commissioning and ensuring robust data analysis to measure impact on outcomes.
- Support units in times of increased demand to report capacity and demand via the Directory of Service to the ACC Dashboard and to support and inform local and regional decision making on mutual aid including transfers within and across Networks to maintain equitable access, in line with the national Adult Critical Care Surge Planning guidance.
- Undertake capacity planning and activity monitoring to ensure service capacity matches demand requirements for elective recovery programmes and emergency treatments and contingencies are agreed where this cannot be achieved.
- Support the delivery of the national ACC work programme objectives. This programme came to an end in March 2023 and outstanding workstreams will be deferred to the ODN’s.
- Contribute to the national annual ACC census (formerly stocktake) process, along with any other national information requests as required.

- Ensure consistent high-quality practice across all networks critical care units through ongoing programme of peer reviews and monitoring of performance against national standards.
- Monitor and review patient safety incidents across the network.

1. Service Delivery: plan and manage capacity and demand.

CMCCN overarching role in service delivery is to act as a resource, co-ordinator and provide leadership and facilitation for all stakeholders to achieve a collaborative approach to safe, equitable and effective service delivery. Working across organisational boundaries to improve access, equity, reduce variation and define best practice. This also includes understanding the capacity and specialist capability across the network and being able to provide ongoing assurance that this meets demand, including fluctuation or surges in activity.

CMCCN mission is to continually improve critical care patient pathways by:

- Continually developing and refining our understanding of the most effective pathways across critical care.
- Supporting providers to reach the highest common levels of service delivery and quality.
- Identifying and recognising excellence throughout our membership
- Developing and accessing best practice from across the United Kingdom
- Providing a support network for our members and their staff
- Supporting the response to network-wide incidents.

Key Achievements for this year in relation to service delivery are:

- As part of a national plan for all regions in NHS England to have critical care transfer services, fixed term funding, currently in place until March 2025 has been allocated to CMCCN by NHSEI. Delivered in collaboration with LHCH and Sparks Medical this arrangement currently provides access to a network transfer vehicle for all stake holders to support both intra and inter-regional critical care transfers. Standard Operating Procedure has been updated and a database of all transfers facilitated and maintained by the CMCCN team. Since its inception the service has conducted over 366 critical care transfers and this service has been well received by all our CMCCN units.

- Working in conjunction with the 2 other NW Critical Care ODN's in relation to project planning and commissioning a NHSEI funded NW transfer service model. The project has received funding from NHSE to appoint a project manager and medical lead. The medical lead for the project is a C&M consultant within one of our larger units. The project is overseen by another NW Critical Care ODN. The project officially commenced in November 2023 and a NW Critical Care transfer project board created. The CMCCN team attend the regular NW transfer project board meetings, provide data, and offer support for the project as required. A NW transfer project stakeholder event was held Wigan in early April 2024 to seek and collect the views / opinions of invited critical care transfer leads and other staff who have the responsibility for critical care transfers within their units. CMCCN had excellent representation at the event and a summary of options going forward has been produced and next stage of the process is to secure a NW acute NHS Trust to procure and host the service.

- CMCCN continue to monitor capacity transfers with the system and any capacity transfer is reported into the CMCCN team. The LSILS also collect data on all critical care transfers which is analysed and shared across the network.

- Continuation of the Local Service Improvement Leads (LSIL) annual audit programme which includes monthly transfer data, delayed discharge data, staff moves, sickness and vacancy data within all our units. This data is analysed and circulated to all our stakeholders. The audit calendar was revised in line with changes to the funding of the LSILs role – main changes were the discontinuation of the Quality Standards audit which were demanding on the LSILS time and replacement of observation of care audits which allow the LSILS to visit and audit each other's units on key priorities in

critical care patient care. The annual CMCCN Critical Care staff safety culture survey has replaced the safety culture survey retention survey- this survey has been adapted from the 2023 CC3N national critical care nursing survey. The CMCCN patient and family survey has been updated and recommenced as unit visiting has returned to normal since covid.

- CMCCN continue to have links with NHSE EPRR leads reflecting changes in their role and remit as aligned to the development of the ICB's and their Civil Contingency Act responsibilities. CMCCN team members attended the quarterly Cheshire and Mersey Local Health Resilience Partnership (LHRP) meetings.

- CMCCN team Interface with NHS Cheshire and Merseyside EPRR teams and System Control Centre (SCC). To support the Cheshire and Mersey and wider Northwest response to planning for and managing NHS industrial action. CMCCN members are also part of both the NW region and ICB industrial action cells when requested.
- Assisted with the rollout of the National NHSE critical care surge policy and the new version of the CRITCON national critical care unit strain score. CRITCON translates the real-time observation & assessment of strain by clinical leaders in both routine circumstances and rapidly evolving situations, into a succinct communication score. This enables local, regional & national understanding, escalation, operational decision-making, and load balancing. CRITCON & co-ordinated mutual aid are tools specifically designed to distribute resource, ensure equity of access, and avert the possibility of any unit or site being forced into a state of resource triage while there remains accessible capacity in the system. CRITCON as illustrated in figure 1, describes the strain status of individual units, networks of units and the country, accepting that strain will be shared and distributed across the system. CMCCN worked with units, Trusts Operational directors / managers, EPRR and SCC teams to ensure all relevant stake holders were aware of and know how to interpret the new CRITCON scores. https://ics.ac.uk/resource/critcon-levels-launch.html

CRITCON Levels

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CRITCON Criteria	Level
BUSINESS AS USUAL - Consistent delivery of usual care without impact on other services	0
ALL of the following: • Within funded or physical bed base and level 3 equivalent occupancy <100% • Critical Care nurse and medical rota within expected GPICS staffing ratios • All education, training, audit, research and governance arrangements are delivered as normal	
GROWING PRESSURE - Delivery of best possible care in the context of available resources and staff	1
• Within funded or physical bed base • Critical Care nurse and medical rotas within expected GPICS staffing ratios WITH ANY of the following: • Occupancy 100% against funded or physical bed base, or level 3 equivalent occupancy ≥100% • Cancelled planned surgery because of a lack of staffed critical care bed • One capacity transfer to a different Trust planned, in process or completed • Cancellation of education, training, audit, research or governance in order to achieve bedside staffing standards for at least 24 hours. • Staffing ratios only maintained by redeploying staff from other key critical care services e.g. coordinator, practice educators, follow up clinic, IT or outreach	
SURGE - Derogation of **some** elements of usual care for **some** critically ill patients within a Trust/Health Board	2
ANY of the following: • Critical care patient numbers mandating expansion beyond funded or physical bed base into escalation areas (theatre recovery, other acute areas) for more than 24 hours • Unable to meet nurse OR medical rota expected GPICS staffing ratios for up to 48 hours • Cancelled planned surgery because of a lack of staffed critical care beds for 2 or more consecutive days • More than one capacity transfer to a different Trust or Trusts within 48 hours • Other resources becoming limited because of high demand e.g. renal replacement therapy equipment	
SURGE CAPACITY EXCEEDED - A sustained derogation from usual care, for **all** critically ill patients within a Trust/Health Board	3
ANY of the following: • Sustained (more than 48h) use of GPICS non-compliant nurse and medical staffing ratios AND use of redeployed non-critical care staff necessary to support critical care • Critical care and escalation areas (theatre recovery, other acute care areas) saturated at full physical OR technological/equipment capacity at any point, with no ability to admit more critically ill patients **CRITCON 3 should trigger immediate and unhindered mutual aid. The prime imperative during CRITCON 3 must be to prevent any region entering CRITCON 4**	
REGIONAL DECOMPENSATION - Significant and sustained derogation from **usual** care for **all** critically ill patients within a region or more than one Health Board	4
• Service operating **at risk** despite all local and regional efforts to mitigate sustained pressures AND • 10% or more of units within a network (or equivalent) at CRITCON 3 OR • Any capacity transfers outside of usual (regional or network) transfer boundaries due to inadequate capacity	
NATIONAL DECOMPENSATION - Significant and sustained derogation from **usual** care, for **all** critically ill patients across several regions or a nation	5
• Service operating at sustained risk (CRITCON 4), in **more than one region** despite all local, regional, and national efforts to mitigate. This requires Government level escalation and enacting extraordinary national contingency measures	

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Figure 1

- CMCCN team produced the CMCCN Management of Adult Critical Care Capacity: Principles and Guidance document. This guidance is intended to assist local escalation at Trust and Network level in the management of increasing demands for Adult Critical Care capacity and will be superseded in the occurrence of any declared major incident or clinical event, where wider cross regional or national coordination and escalation is required. This document would be used in conjunction with NHSE National Critical Care Surge Guidance published in 2023. Whilst undertaking this piece of work, the CMCCN team worked with all CMCCN units in determining an up-to-date bed base to ensure the NCDR national bed capacity dashboard was correct for CMCCN.

- Worked collaboratively with the other 2 NW Critical Care networks and the NW Paediatric Critical Care network to inform the development of and produce guidance and policy on paediatric critical care escalation and the use of adult Critical Care beds for paediatric patients.

- Shared clinical and operational learning from terrorist incidents, power failure, incidents and fires.

- Working in conjunction with NW Paediatric Critical Care ODN and the two other NW Critical Care regarding producing resources and guidance for adult critical care staff in relation to caring for Paediatric patients on adult critical care units. CMCCN lead nurse is working with NW paediatric critical care network educator team on an education package to ensure CMCCN units have necessary knowledge and skills in preparation to receive paediatric patients within their units in times of surge and system need.

- Closely work with all CMCCN units to provide guidance on their annual winter planning and surge plans.

- We continue to maintain oversight of Directory of Service (DoS) / National Commissioning Data Repository (NCDR) critical care bed occupancy dashboard. Actively managed roll out of the new system to all our stakeholders and providers. The dashboard is updated twice daily and gives a true picture of bed occupancy nationally, regionally and at network level. The NCDR dashboard informs, facilitates and monitors requests for mutual aid and capacity. The CMCCN team continue to work with the NCDR national team to provide feedback in relation to constantly improving the system and improving the data provided. In 2023 CMCCN undertook a validation exercise of all CMCCN critical care beds and reset all critical care bed numbers on both the DoS and NCDR platforms.

The screen shot in figure 2 illustrates a CMCCN view of the dashboard.

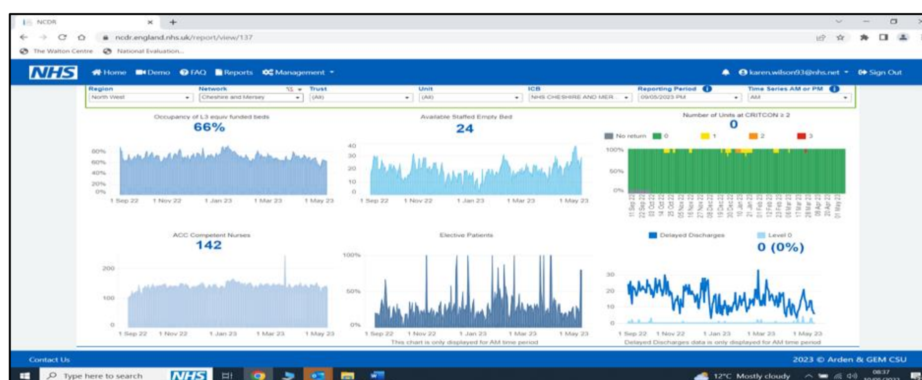


Figure 2.

- As part of the work with AGEM the CMCCN team are now able to provide bed occupancy reports. Work originally started on these reports in late 2023 and retrospective data from the NCDR and DoS systems could be used. An overall network and individual unit reports have been produced and can be updated each quarter. This has been well received by unit leadership teams and is seen as a support measure in optimising critical care bed utilisation.

Figure 3 below is an example of an SPC chart of unit occupancy which is included in the CMCCN occupancy reports.

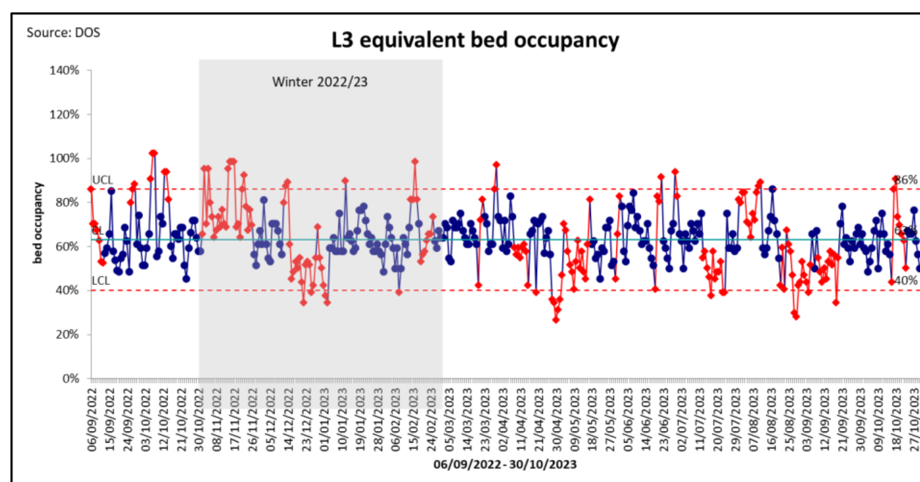


Figure 3.

- Each year CMCCN take part in the annual NHSEI National Adult Critical Care Census – this an annual national benchmarking event facilitated by the NHSEI National Adult Critical Care team which collects data on critical care bed provision and critical care staffing across the country– CMCCN are the gatekeepers for CMCCN unit returns and ensuring all information submitted is accurate.

- The CMCCN incident reporting and governance process continues and provides a structured process for more detailed and objective evaluation of cases where it has been deemed that patients may have been conveyed to or transferred between settings that are not the most appropriate or equipped to meet their management needs. All incidents are reported via the CMCCN team. A clinical governance section has been incorporated into the CMCCN clinical group to promote shared learning from incidents and our members are also invited to present clinical incidents or events where potential for shared learning has been identified.

2. Resources: clinical stewardship of resources across the whole pathway

The objective and unbiased remit of CMCCN ensures that it is well placed to promote consistent standards and levels of provision across the region to quantify, challenge and work with organisations and clinical teams within the network to strive to address any unwarranted variation.

The National ACC census that is facilitated each year provides a clear picture of critical bed stock and critical care staff, nationally, regionally, and locally. There are 6 sections to the ACC census and are as follows:

- Demographics and bed stock
- Nursing staff
- Support Staff
- Pharmacy and Allied Health Professionals
- Critical Care Outreach
- Medical staff

A summary report of key findings in relation to CMCCN was written and presented to board in December 2023.

Key achievements during 2022-23 for this network function include.

- Aligned to the Guidelines for the Provision of Intensive Care Services V2.1 A robust CMCCN peer review visit process has been conducted with all our CMCCN peer reviews and concluded in April 2023

- CMCCN led review meetings assessing compliance against the National Specification for Adult Critical Care were completed by July 2023 and both network and specific unit reports completed, published, and circulated to all CMCCN stakeholders in Autumn 2023. Follow up visits are planned to take place summer 2024.

- Continue to contribute to and provide advisory support in relation to critical care for activity aligned to the case for change for Women's Hospital Services in Liverpool. CMCCN Lead nurse is also part of a Liverpool Womens Hospital (LWH) working group looking at critical care service provision and education following the recommendations within the CMCCN peer review report and at the request of LWH Chief Nurse.
- Part of the national group to review the annual NHSEI National Adult Critical Care census survey – CMCCN are the gatekeepers for CMCCN unit returns and ensuring all information submitted is accurate.

- Development of collaborative working with other clinical networks to ensure open access of resources to CMCCN key stakeholders.

- Collaborative workstream has been developed with NW renal network specifically in relation to units that will provide haemodialysis in times of surge. Further Simulation education train the trainer dates to be planned.
- Update of existing CMCCN Patient and Public Involvement policy commenced and strong links continue with CMCCN patient support groups.

- CMCCN Relative satisfaction survey updated and relaunched – data collection commenced in later 2023 as normal visiting hours and arrangements have only just been established again in CMCCN Units post Covid.
- Continue to collaborate with the NW Paediatric Critical Care Network to provide expertise and education in caring for the critically ill child in an adult ICU setting.
- Both the previous CMCCN clinical Lead and Lead Nurse hold seats on the National Critical Care Clinical Reference Group so have a voice to influence national Adult critical care (ACC) policy directly.
- CMCCN lead nurse current chair of the national Critical Care Network Nurse Leads Group (CC3N)- this group has successfully produced national standards and guidelines which have been adopted nationally. As chair, she also has seats on all national NHSEI ACC working groups and the UK Critical Care Nursing Alliance and the National Critical Care Leadership forum so can directly influence national ACC policy. [www.cc3n.org.uk .](http://www.cc3n.org.uk)
- ODN Director is part of a national working group developing proposal for an enhanced critical care peer review process to support assessment of rehabilitation provision in response to the National ACC critical care rehabilitation survey that took place in July

2023. All CMCCN units took part in the survey apart from two of specialist units as they did not meet the inclusion criteria.

- Contributed to the roll out of the National NHSE ACC programme which ended in March 2024 and ensured CMCCN units and stakeholders contributed to key workstreams in relation to this for example National NHSE critical care rehabilitation survey.

3. Workforce: flexible, skilled resilient staffing

Having a flexible critical care workforce with the relevant knowledge, skills, training, and experience is pivotal to service provision and the delivery of effective and efficient clinical outcomes. CMCCN is well placed to hold oversight of network workforce compliance with nationally mandated critical care educational standards and competencies. Both GPICS V2:1 and the National DO5 (now known as 22052S) Critical Care Service Specification include education and workforce standards. CC3N (Critical Care Network Nurse leads national group) have been instrumental in developing a national stepped competency approach for critical care nurses and produce the national critical care nurse education standards for the entire country. CC3N have also created competences for assistive and non- registered roles within critical care. To become a competent and experienced critical care nurse, all Registered Nurses within critical care must undertake a post registration academic 60 credit qualification in critical care nursing before they are able to become a band 6 member of staff. As part of the UKCCNA CMCCN lead nurse has contributed to 2 key national critical care nursing workforce documents – the Critical Care Workforce Optimisation plan and career development pathway as referenced in figures 3 and 4 and will be reflected within the nurse staffing chapter in GPICS version 3.

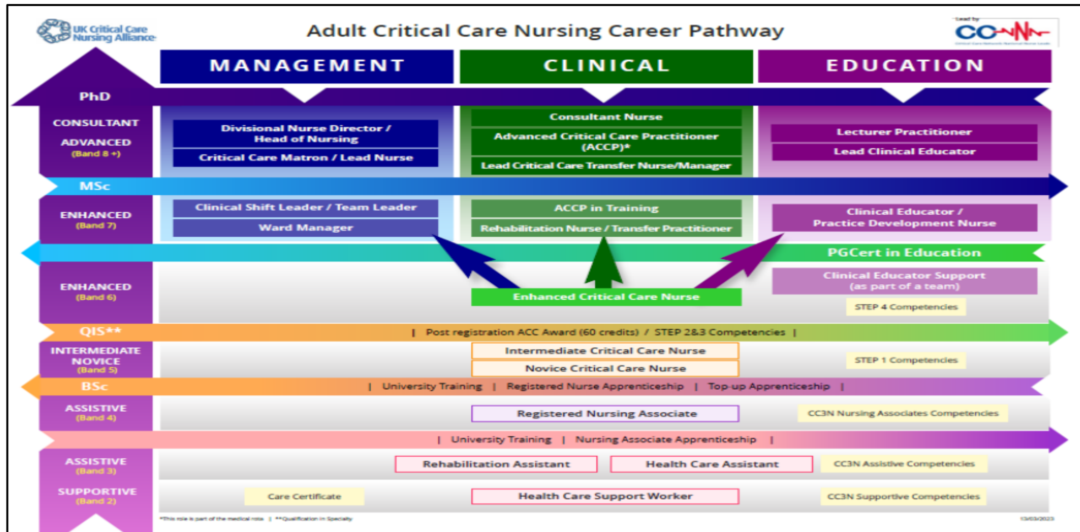


Figure 4.

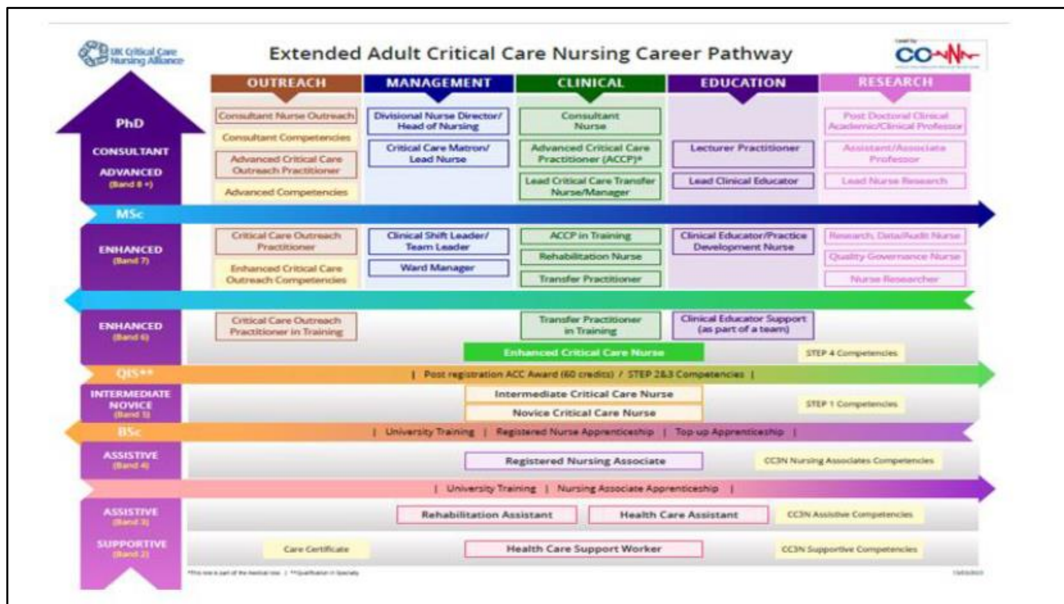


Figure 5.

In addition to formally accredited training and education programmes it is essential that the network is supportive of the development of local initiatives and plays a key role in sharing and promoting best practice and in facilitating cross network learning. CMCCN has a well-established educator group for this purpose.

For 2023 / 2024 the National NHSEI Adult Critical Care programme has provided extra funding for post registration critical care nursing programmes which has allowed CMCCN units to ensure critical care nursing staff to obtain places and meet the current GPICS standard of 50 % of Registered Nursing Staff having an academic post registration qualification in critical care nursing.

CMCCN also received some national funding in autumn 2022 for the purposes of critical care nurse education and wellbeing. Although the funding was non recurrent and required to be spent / allocated by March 2023. In addition to being able to support 4 CMCCN units with a 6-month secondment for an extra clinical educator until the end of March 2023, CMCCN were also able to fund other educational opportunities for CMCCN critical care nursing staff through to the end of 2023. Table 3 below outlines what the funding was used for in 2023.

Resource	Quantity / Places per unit
Good Question Cards to assist Professional Nurse Advocates in Restorative Clinical Supervision sessions	100 packs – 1 per unit PNA
Bespoke Leadership sessions for senior band 5 and band 6 critical care nurses	100 places – 10 per unit
Intensive Care Peer supporter training places	60 places
RCN educator conference	1 place per unit
BACCN unit memberships	1 membership per unit
BACCN conference places	30 places
ICS Conference Places	30 places
CMCCN wellbeing and education conference	120 places

Table 3

The CMCCN wellbeing and education symposium took place on 28th September 2023 at the Princess Royal Suite, Aintree Racecourse. This brought together 120 critical care nurses and HealthCare Support workers from all CMCCN critical care units. The programme highlighted the amazing education and wellbeing work that is going on nationally and locally within our network units. Programme details overleaf.

The day also had a marketplace consisting of information stalls from CC3N, our local professional nurse advocates, LSILS, Cheshire and Mersey Resilience Hub and Park Run. The stars of the show were two Therapy dogs – Rosie the golden retriever from LUFT NHS Trust and Jack the collie from MWL NHS Trust. The programme for the event is outlined within figure 6.

PROGRAMME

Cheshire and Mersey Critical Care Network – Wellbeing and Education Symposium

Thursday 28th September 2023 09:00-16:15 hrs
Princess Royal Suite
Aintree Racecourse
Liverpool

Time	Item	Speaker
08.30 – 09.00	Registration and coffee	
09.00– 09.10	Welcome and Housekeeping	Julie Peacock CMODN's Director, Karen Wilson, CMCCN Lead Nurse and Jon Walker Medical Lead CMCCN
09.10 -09.30	Southport Critical Care Staff Wellbeing and Retention Initiatives / Implementing Schwartz rounds into critical care	Angie Westwood Matron / Joy Chimbuma Critical Care Unit Southport
09.30 -10.00	Implementing the Professional Nurse Advocate (PNA) role within critical care – national and local implementation Being a grassroots PNA on a busy critical care unit	Karen Wilson – Lead Nurse CMCCN, PNA and National Critical Care PNA Community of Practice Lead Karen McQueen Senior Sister /PNA Critical Care Unit, Countess of Chester
10.00 -10.30	Supporting ICU Staff Through three Helpful Ps: Psychologists, PNAs and Peer Support, how we can work together. (This will be a virtual presentation from Julie)	Dr Julie Highfield Clinical Psychologist Director of Wellbeing Intensive Care Society

CMCCN wellbeing and education Symposium Programme 28th September 2023

10.30 -11.15	Using a compassion-focussed approach to support the wellbeing of critical care teams.	Dr Lucy Shattock Principal Psychologist Cheshire and Mersey Resilience Hub
11.15 – 11.45	Coffee Break and Networking	
11.45 -12.15	Staff Mental Health and Wellbeing – implementing TIM tool – psychologist perspective	Dr Ellie Pontin Principal Clinical Psychologist Critical Care LUHFT
12.15 -12.45	Wellbeing Champion, St Helen and Knowsley NHS Foundation Trust	Paul Wood Wellbeing Champion Whiston Hospital
12.45 -13.30	Lunch and Networking – visit the marketplace	
13.30 – 14.00	Digitalisation of CC3N National Critical Care Nursing Steps Competences Project	Claire Wroe NHS Elect
14.00 – 14.30	Critical Care Nurse Education – supporting our staff	Andrew Lynes – Practice Educator – Critical Care Unit, Aintree Hospital
14.30 -14.45	Developing our Health Care Support Workers (HCSW) in critical care and utilisation of CC3N HCSW competences	Hayley Ennis, Practice Educator, Critical Care Unit, Aintree Hospital
14.45-15.00	Supporting internationally educated nurses within critical care - Aintree	Debbie Murphy and Becky McEneany - Sisters Critical Care Unit, Aintree
15.00 – 15.15	Comfort Break	
15.15 –16.00	CMCCN Local Service Improvement Lead Role – wellbeing QI projects showcase. Helen Beddows The Walton Centre Night Shift Guidance for Critical Care Nurses Tanya Holden Southport – Sustainability in Critical Care	Karen Wilson Lead Nurse CMCCN Helen Beddows Local Service Improvement Lead Walton Centre

CMCCN wellbeing and education Symposium Programme 28th September 2023

Figure 6

Retention of critical care workforce is a national and network priority. Nursing makes up the largest proportion of the Critical Care workforce and the availability of critical care beds is dependent on nurse staffing. From the 2023 National ACC census, there are 20,171 funded registered nurse band 5-7 posts with intensive care units throughout the country but only 18,399 in post. The Northwest region have 3,071 band 5-7 funded nursing posts and at the time of the 2023 census, there were 2,866 in post.

The image in figure 7 below shows the regional number of band 5-7 nurses in post per bed ACC bed. For CMCCN this is 4.81 WTE per bed which stands at the national median of 4.81 WTE per funded ACC bed. The difference between actual funded band 5-7 posts and nurses currently in post is 0.22 which was minimal compared to other regions within the country.

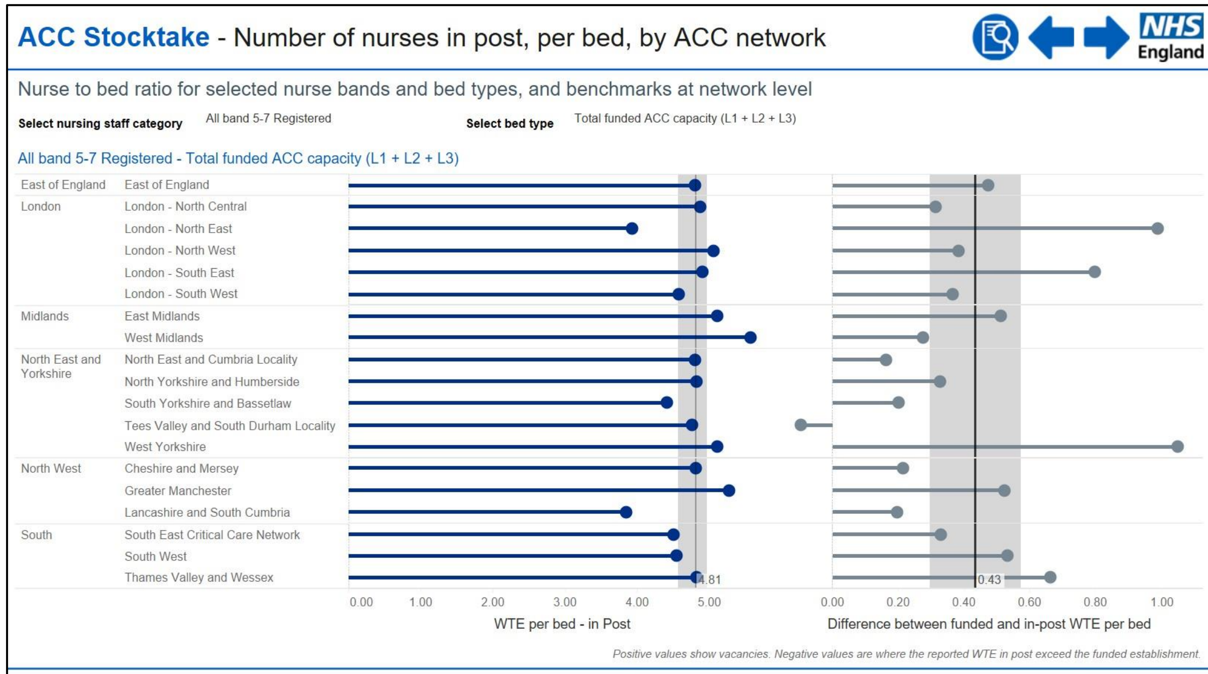


Figure 7

The national yearly staff turnover median is 10.1%. At the time of the census, CMCCN staff turnover was at 7.9% which is lower than the national median. Regionally CMCCN staff turnover rate was lower than GMCCN but higher than LSCCCN.

Figure 8 below shows CMCCN turnover rates in order from highest to lowest. Since the census was published there have been significant improvements to these turnover rates.

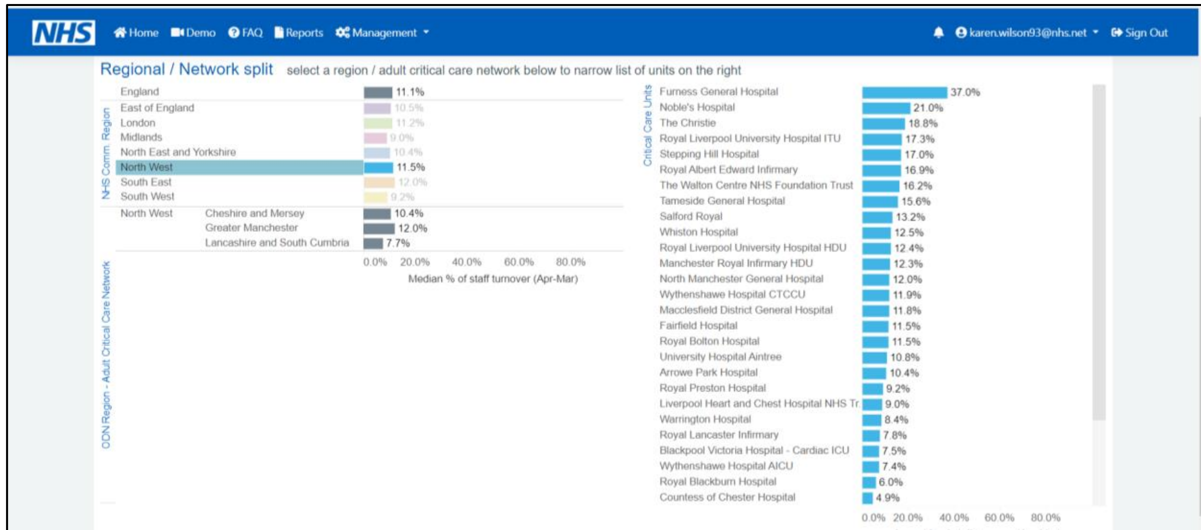


Figure 8

The national current median sickness rate for critical care units is 6.2%. CMCCN sickness rates match this at 6.2%. Regionally we have the lowest sickness rate in the NW compared with the other 2 NW critical care networks.

Figure 9 illustrates the CMCCN sickness rates at the time of the census. CMCCN monitor vacancy rates each month via the core unit data audit collected by the CMCCN service improvement leads (SILS).

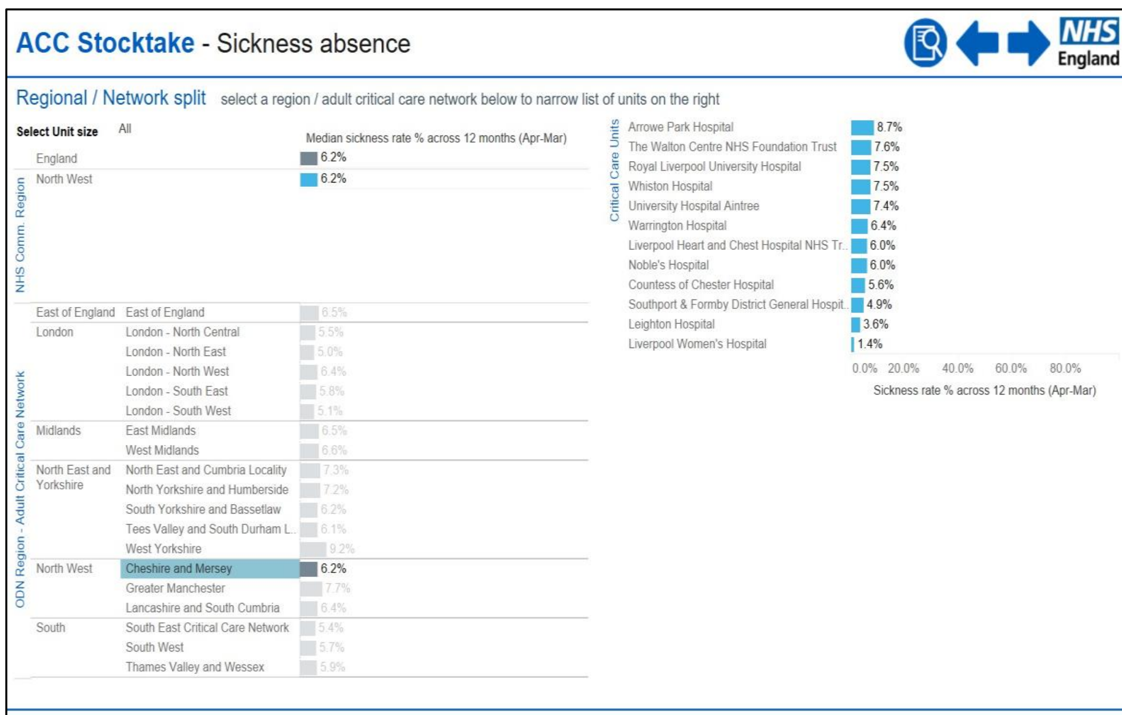


Figure 9.

Whilst the National NHSE ACC census acknowledged there were vacancies with in CMCCN units for Allied Health Professional provision- there was limited data on this initially within CMCCN. In February 2023 CMCCN lead by the ODN director undertook a piece of work to benchmark AHP provision across all CMCCN units. The data collected from this exercise identifies that there are varying levels of compliance between the funded establishments for the AHP and Clinical Psychology workforce against those determined within the D05 (now referenced as 22052S) Service Specification and GPIC's V2.1 recommendations.

The variance is evident between individual CMCCN Units and specific AHP professions.
A high-level summary of findings is outlined in the Table 4.

Profession	Key Observations
Clinical Psychology	Three of the CMCCN Units have dedicated qualified practitioner psychology staffing provision (Shared posts between the Aintree and Royal Liverpool Sites of Liverpool University Hospitals NHS Foundation Trust (LUHFT) and Liverpool Heart and Chest Hospital (LHCH) Although both these appointments have made a positive impact in terms of both patient care and staff support, establishment is below that is recommended by the ICS.
Dietetics	All units have some level of designated dietetic provision (Within LHCH cover is provided by Band 7 Dietitian from the main Trust Therapy service) Within 4 units Aintree, Leighton, Royal Liverpool, and The Walton Centre provision aligns to the minimum level recommended by GPICS V2.1 Although there is some provision is in place within all other units this is at a level lower than that specified within GPICS V2.1
Occupational Therapy	Only two LUHFT units, Aintree and Royal Liverpool have designated Occupational Therapy (OT) provision. At LHCH some cover is provided from the main trust therapy service.

	Leighton and Southport limited OT provision from main therapy service where OT assessment is provided in response to specific referrals. The remaining five units reported that they currently have no planned provision for accessing Occupational Therapy.
Physiotherapy	At Arrowe Park, Leighton and LHCH physiotherapy provision to critical care is delivered as part of a wider service that includes cover for other clinical specialities. Within the remaining units although there are designated staff in place to provide weekday provision there is variance in the provision made for weekends and overnight on call services. Most units reported that intervention is focused on respiratory management with restricted capacity and scope to deliver any focused rehabilitation intervention. GPICs ratios are currently only determined for defining recommended staffing levels according to the number of Level 3 beds. Therefore, as the services provided include cover for both Level 3 and Level 2 provision for this exercise the ratio of staff against the Level 3 equivalent bed base has been applied. This demonstrates that for several units were designated cover is in place this falls below the optimal levels recommended.
Speech and Language Therapy	Currently only five of the network units have funding for designated speech and language therapy provision in place, however the WTE for all these units are below that recommended. Across the remaining units there is some ad hoc cover in place via the main therapy services resulting in variance of intervention both in terms of intensity and staff knowledge and skill set. Current position places significant challenge with the capacity and capability of units being able to comply with the GPICS V2.1 standard that all patients with a tracheostomy must have communication and swallowing impairment assessed by a Speech and Language Therapist.

Table 4

In March 2023 CMCCN facilitated an annual critical care staff retention survey, led by the CMCCN lead Nurse and facilitated within the units by each LSIL. The survey received 529 responses across 10 CMCCN units – 79% of the respondents came from the Registered Nursing workforce, 8% medical workforce, 6 % Health Care Support workers and 4% AHP.

Please reference figure 10 for the breakdown of respondents.

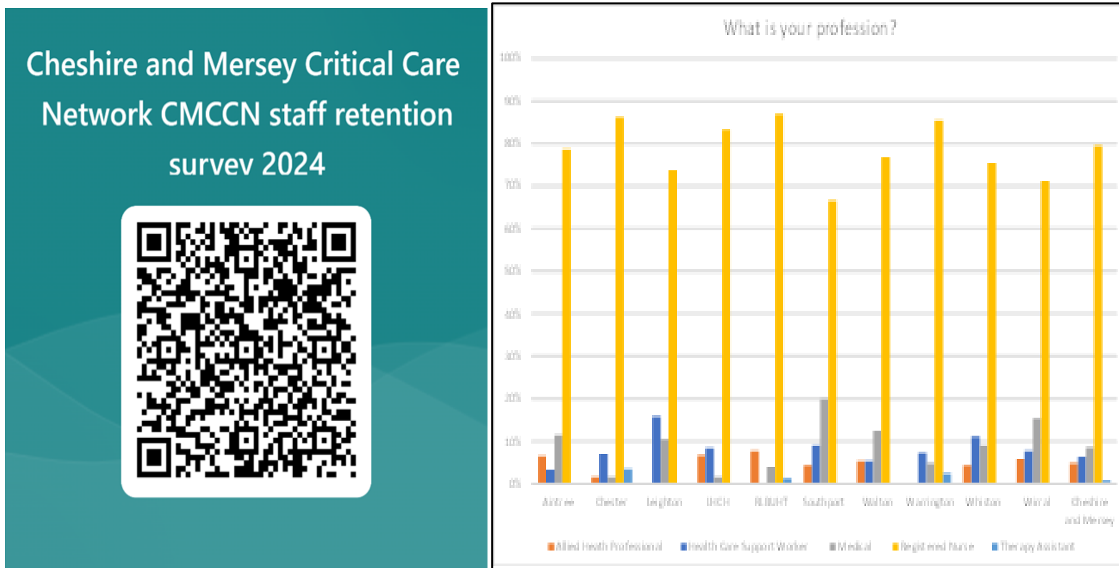


Figure 10

CMCCN analysed the data received from CMCCN staff members from both a whole network perspective as well as producing analysis for each individual CMCCN unit and this was shared with the unit's senior nurse and discussed at individual peer reviews. Figure 11 includes a selection of charts from the CMCCN analysis.175 (33 %) of the CMCCN respondents stated they are planning to leave their current critical care unit. 19 % of these were expecting to leave within the next year and 18 % within the next 2 years.

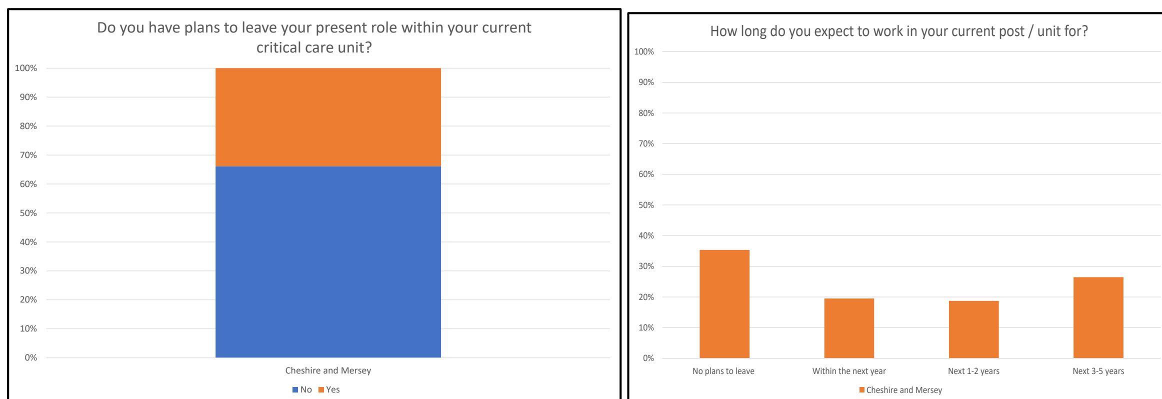


Figure 11.

Figure 12 illustrates When asked where they would be going onto 31% (54% respondents) were considering moving to another speciality, 40 respondents (23%) will be retiring, 15% (26 respondents) will be moving to another critical care unit, 8% (14 respondents) were wanting to leave the NHS altogether. Top 3 reasons for contributing to people wanting to leave are lack of pay recognition, being asked to move to other wards and departments and unit culture / team morale.

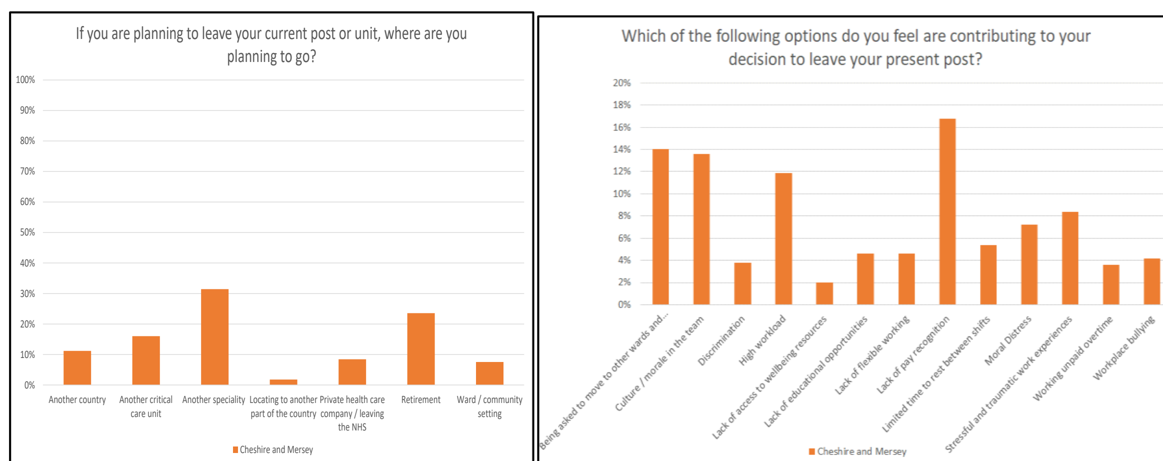


Figure 12.

Initial analysis has been shared with CMCCN stakeholder groups and individual survey comments shared confidentiality with the units lead nurses. Each unit will get their own individual analysis graphs and an overall network report and recommendations will be published later in 2024.

Key achievements during 2023-24 for this network function include:

- Continual support of CMCCN Professional Nurse Advocates within CMCCN units. This role was launched by Ruth May, Chief Nursing Officer for England in March 2021 and the role is key to helping support staff's mental health and wellbeing in practice. A further 2 PNA places for CMCCN units were funded via the National NHSE ACC programme and CMCCN lead nurse coordinated these places with the NW NHSE PNA lead.

- CMCCN lead Nurse is a PNA and the national speciality PNA advisor for critical care PNA's. CMCCN has its own PNA support group. All CMCCN PNAs also have access to the National Community of Practice for Critical Care PNA's which is lead by the CMCCN lead nurse – this provides a forum for peer support and sharing of best practice. The CC3N guidelines for the PNA role within critical care have also been embedded into the CMCCN peer review. A National PNA critical care webinar was also facilitated in conjunction with CC3N and BACCN. Further national work and research is planned to look how well the role is utilised within critical care in 2024/25.

- Each unit had 5 supported training places for the peer supporter role who along with the Psychologists and PNAs provided a rounded approach to supporting critical care staff mental health and wellbeing.

- Reinstatement of CMCCN wellbeing group comprising of all key wellbeing roles within CMCCN units to collaborate and share best practice across all units.

- Facilitation and monitoring of National HEE blended learning academic critical care nursing programme which has provided all our unit's access to free critical care nursing academic programmes at the following Higher Education Institute (HEI) – Liverpool University. The Network has played a key role in ensuring the national education standards are adhered in these programmes and ensuring that places are utilised in a fair and inclusive process for all stakeholders. As part of the National ACC programme funding has been secured for 2 years until the end of March 2025.

- Continue to promote and outline the requirement for a network based educational QI lead post. An example job description (JD) and person specification developed by CMCCN has been shared with NHSE workforce and education team (formerly HEE) for consideration for funding for all networks. This role would be key to maintaining educational standards within all CMCCN units. CMCCN have been approached for the CMCCN JD and role description to be adopted for use by other networks to obtain a similar post within the network teams.

- To support and educate critical care staff, we need to ensure further resilience and supply of our unit based clinical educators. The funding for extra educators in some of the CMCCN units until March 2023 proved very successful and some units continued to fund these posts beyond this. Units also received further WTE funding to assist

registered nursing staff in achieving national STEP competences which was paid directly to Trusts rather than the via CMCCN as per previous allocations. Several units have successively funded extra education posts to assist in supporting staff to achieve STEP competences in practice.

- CMCCN annual critical care workforce retention survey. There will be key targeted workstreams and recommendations from the survey report which will be completed 2024/25.

- LSILS Critical Care staff moves audit and feedback – staff movement from critical care to assist other wards and departments has been cited as the 2nd highest reason for why staff want to leave their posts in critical care within CMCCN units.

- Successfully rolled out hot debrief tools throughout CMCCN units particularly the Intensive Care Society TIM (Team Immediate Meet) tool within CMCCN critical care units.

- Facilitated the implementation of CC3N band 2 and 3 critical care Healthcare Support Worker competences within CMCCN to maintain both national and network wide standards.

- Continued roll out of the National Critical Care Outreach Practitioner (CCOP) framework and competences across all Critical Care Outreach Teams (CCOT) across CMCCN.

- Support and network endorsement of CCOT online education sessions and face to face study days to help CCOT teams achieve national CCOP competences.

- CMCCN also part of a national piece of work to create a national education and competency framework for Allied Health Professionals (AHP). Work is now completed and is in the process of national consultation phase.

- Network Endorsement and quality assurance of Liverpool University post registration module for AHP's working in critical care.

- Lead Nurse contributed to UKCCNA national critical care nursing optimisation plan and career development pathway which will be published in May 2024.

- Lead Nurse currently part of national NHSE National Quality Board critical care nursing safe staffing guidelines and policy which will be published later in 2024.

- CMCCN lead nurse contributing to forthcoming nursing workforce chapters of new version of GPICS planned to be published later in 2024.

- Lead Nurse presented at national critical care conferences in relation to workforce and PNA role.

4. Quality: Improve quality, safety experience and outcomes

All CMCCN units contribute to the Intensive Care National Audit & Research Centre (ICNARC) data collection, the focus of ICNARC is on people who are likely to become, currently are, or are recovering from being critically ill. ICNARC helps ensure the best possible care by facilitating improvements in the structure, processes, outcomes, and experiences of critical care - for patients and for those who care for them.

ICNARC manages 4 National Audits - the Case Mix Programme (CMP) and Irish National Intensive Care Unit Audit (INICUA) which address adult critical care, the Assessment of Risk in Cardiothoracic Intensive Care (ARCtIC) which addresses adult cardiothoracic critical care and the National Cardiac Arrest Audit (NCAA) which addresses in-hospital cardiac arrest.

ICNARC have recommenced the production of network wide reports which help inform us about CMCCN care and treatment outcomes. CMCCN teams are currently in the process of renewing the data sharing permissions to allow the CMCCN team to view ICNARC data for all our units within CMCCN for purposes of peer review.

One of the established and proven functions of CMCCN is activity aligned to Quality Improvement and patient safety. This is achieved through a proactive peer review programme and via our LSILS audit programme.

The LSILs role was established in January 2007 to facilitate service improvement within Cheshire & Mersey Critical Care Units. Up until March 2024, the role has been funded by CMCCN, who second a senior non-medical member of the local critical care team for 1 day per week (7.5 hours). The key responsibilities of the role include:

- Developing best practice
- Improving communication
- Improving team working
- Auditing practice against National, Network and Locally agreed standards
- Benchmarking unit performance against peer group
- Improving reporting of clinical incidents and sharing of lessons learnt
- Implementing National, Network and Locally agreed standards and quality indicators

The LSILs role has a direct impact on the equity of care provision across Cheshire & Mersey. Projects managed by the LSILs are successful because of their local engagement with all multi professional disciplines and their expertise in benchmarking, auditing and initiating change that is both measurable and sustained in practice.

Picture taken at LSILS meeting 2022 – permission granted from all the CMCCN LSILs to use in this report.

LSILs record project development plans for all their activity and submit them for annual review to the CMCCN team. These include National and Network driven initiatives as well as Local objectives. Common themes can be shared between the LSILs during their regular meetings. Collaborative relationships across the group allow for the sharing of successful implementation and change management strategies. Any cross-cutting work streams are undertaken in conjunction with the relevant CMCCN task group. Since the role was established, there have been 1328 individual LSILS led service improvement projects undertaken in CMCCN units which have not only benefitted the care delivered to patients and relatives within critical care but also critical care staff health and wellbeing, 85 SILS lead QI projects have been facilitated in 2023/24.

Up until end of March 2024, CMCCN provided funding to second a Local Service Improvement Lead (LSIL) within each of the 10 out of 12 Critical Care Units across the region. Due to reduction in the ODN's budget from April 2024 it was no longer be viable for CMCCN to fund the LSIL's positions. Fortunately, due to the proven value of the role all units that were previously in receipt of funding confirmed that they will utilise internal mechanisms and funding to continue to aim to support and protect the roles and time to continue to support audit and quality improvement activity.

Although this is a very positive development the network team are cognisant of the fact that this will potentially dilute the arrangement and the level of influence the network will have going forward on ensuring the LSIL's time is protected, particularly during periods of high activity or staffing shortages on the units.

To account for the impact of these changes although the CMCCN team will retain a leadership and coordination function, there has been a rationalisation to the SILS audit programme.

The audit calendar was revised in line with changes to the funding of the LSILs role – main changes were the discontinuation of the Quality Standards audit which were demanding on the LSILS time and replacement of observation of care audits which allow the LSILS to visit and audit each other's units on key priorities in critical care patient care. The annual CMCCN Critical Care staff has replaced the safety culture survey retention survey- this survey has been adapted from the 2023 CC3N national critical care nursing survey. The CMCCN patient and family survey has been updated and recommenced as unit visiting has returned to normal since covid.

In parallel with the changes to the funding of the CMCCN LSIL'S role and with this the reduction in network budget also meant that the long-term SLA with AGEM was also under threat. Following submission of a case of need, NHSE have agreed to fund continuation of the arrangement with AGEM for a further 12 months (April 2024-March 2025) on the provision that a "proof of concept scoping exercise" was undertaken to explore the opportunities and viability of AGEM being able to support all three NW Adult Critical Care and Major Trauma Networks. In accordance with this, activity has commenced to quantify all data management and business intelligence activity undertaken across all three networks and to map out all the various data systems and sources aligned to adult critical care on a local, regional, and national basis.

The overarching objective will be to optimise opportunities to source data and information from existing platforms to inform locally determined reports and dashboard that align to network requirements relating to activity, processes, and outcomes.

For audit and service evaluation activity where existing data sources are not available the plan will be to use more automated data collection and reporting tools to streamline processes and reduce the burden on staff time.

Regular reports relating to the progress and outputs of the project will be provided to NHSE who in term will determine the longer-term position regarding ongoing financial provision to support this essential network activity.

Examples of components of CMCCN LSIL audit programme

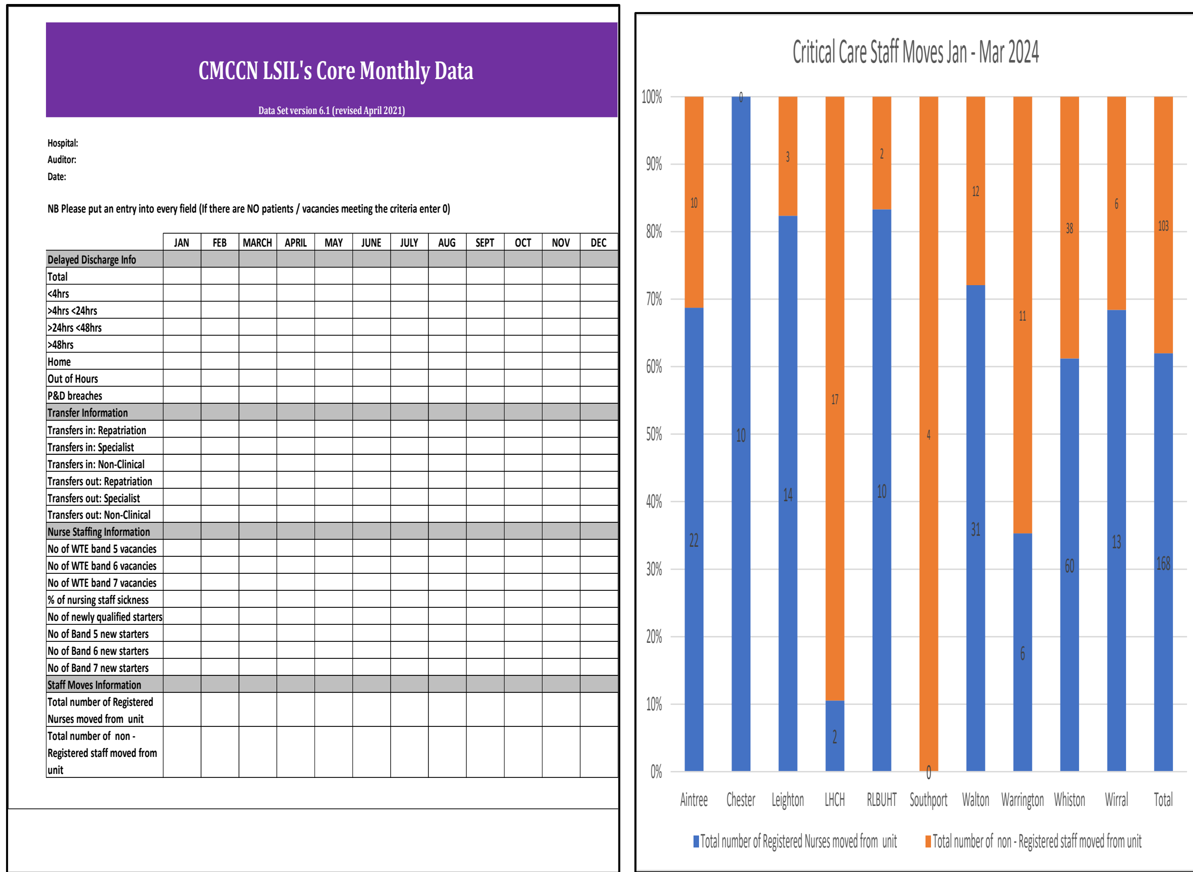
Observation of care audits

Audits are created in consultation with LSILs and senior nurses on key clinical priorities to audit within clinical practice. LSILs work in partnership with each other to perform the audits on each other units. This currently is facilitated 4 times per year. The figure 13 below illustrate an example of the analysis from an observation of care audit which was based on Infection, prevention and control (IPC).

Figure 13

Core unit Data audit-

Collected Monthly by the LSILS and captures key data on delayed discharges, Transfers, staffing vacancies and sickness and staff moves. All the data is analysed, and annual report is produced and shared with key stakeholders. Overview of the core data parameters and example of results from staff moves audit are outlined in Figure 14.



CMCCN LSIL's Core Monthly Data

Data Set version 6.1 (revised April 2021)

Hospital:
Auditor:
Date:

NB Please put an entry into every field (If there are NO patients / vacancies meeting the criteria enter 0)

	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Delayed Discharge Info												
Total												
<4hrs												
>4hrs <24hrs												
>24hrs <48hrs												
>48hrs												
Home												
Out of Hours												
P&D breaches												
Transfer Information												
Transfers in: Repatriation												
Transfers in: Specialist												
Transfers in: Non-Clinical												
Transfers out: Repatriation												
Transfers out: Specialist												
Transfers out: Non-Clinical												
Nurse Staffing Information												
No of WTE band 5 vacancies												
No of WTE band 6 vacancies												
No of WTE band 7 vacancies												
% of nursing staff sickness												
No of newly qualified starters												
No of Band 5 new starters												
No of Band 6 new starters												
No of Band 7 new starters												
Staff Moves Information												
Total number of Registered Nurses moved from unit												
Total number of non - Registered staff moved from unit												

Figure 14

- Sustainability and reducing the carbon footprint within critical care has gained momentum particularly in 2023/24. With the introduction of the gloves off project initially within Wirral University NHS Trust and other Trusts have quickly followed suite. The creation of 'Sustainable Practice and Innovation in ICU Network - Cheshire and Mersey', or 'SPIN-CM' has been created by 2 CMCCN speciality medical trainees and who are now CMCCN unit consultants – Dr Sam Clark and Dr Darius Zeinali. CMCCN intends to become one of the first all green networks and this work goes on from strength to strength with nearly all the LSIL's being involved in sustainability projects in 2023/2024 and beyond.

Key achievements during 2023-24 for this network function include:

- Continuation of the CMCCN LSILs role and the yearly LSILs audit programme.
- 83 LSILs Quality Improvement projects carried out in CMCCN units in 2023/24.
- Several LSILs presented QI projects at the CMCCN wellbeing and education symposium held in September 2023, each LSIL– projects presented included staff support initiatives, sleep bundle and Supporting Internationally Educated Nurses in practice.
- LSILS information stand at CMCCN Symposium to promote the role and prizes for best QI project suggestions.
- LSILs role abstract accepted for 2024 Intensive Care State of the Art Conference in Liverpool.
- CMCCN units submitting abstracts to national critical care conferences such as ICS state of the Art and BACCN.
- Continued engagement and maturing of the network's incidents and governance process, which provides a structured and objective approach to reviewing any practice considered to be sub-optimal and utilising outcomes to learn, share and inform future practice.
- The CMCCN risk register is reviewed and reported quarterly into the Joint ODN's Board.

- Continuation of AGEM data project following the "proof of concept scoping exercise" to explore the opportunities and viability of AGEM being able to support all three NW Adult Critical Care and Major Trauma Networks. to quantify all data management and business intelligence activity undertaken across all three networks and to map out all the various data systems and sources aligned to adult critical care on a local, regional, and national basis.

- Creation of Network Sustainability QI group and projects. Roll out of gloves off project across the CMCCN units. 'Sustainable Practice and Innovation in ICU Network - Cheshire and Mersey', or 'SPIN-CM' has been created by 2 CMCCN unit consultants. CMCCN is involved in the rollout of QI projects from this network and are part of CMCCN green champions.

- CMCCN have now established links with the Cheshire and Merseyside Innovation and research group. Lead Nurse will represent CMCCN on this group in 2024.

5. Collaboration: Working together at local, system and national level

Providing forums, processes, and opportunity for sharing learning, experiences, knowledge, skills, and best practice are fundamental to all networks. To optimise this, it is essential that this happens on a local, regional, and national scale.

Key achievements during 2023-24 for this network function include:

- CMCCN continues to achieve high level of engagement from key stakeholders within all network groups and forums.

- In addition to the designated Critical Care leads and personnel within the CMCCN there is additional engagement from other specialities where this is required to inform and develop practice or pathways for example, cardiac, respiratory, and renal.

- There is consistent and close collaboration with the other Northwest Critical Care Networks both a team and individual role level.

- CMCCN Lead Nurse is current chair of CC3N - this a national critical care nursing group which has produced numerous national documents supporting critical care nursing practice .CC3N is also part of the United Kingdom Nursing Alliance (UKCCNA) which is the overarching organisation for all critical care nursing groups nationally. Lead Nurse holds a seat on the UKCCNA. She also holds seats on several NHSEI ACC national working groups to produce national standards and guidelines in relation to ACC.

- Both the CMCCN previous medical lead and Lead Nurse hold a seat on the National ACC Clinical Reference Group.

- ODN Director part of a national working group developing proposal for an enhanced critical care peer review process to support assessment of rehabilitation provision in response to the National ACC critical care rehabilitation survey that took place in July 2023

- CMCCN lead nurse helped facilitate the critical care nurse support / mental health and wellbeing stream at the National BACCN conference in Nottingham in September in 2023. She was also part of the UKCCNA keynote speech in relation to critical care nursing workforce.

- The Director, CMCCN lead nurse and medical lead all attend the National Critical Care ODN managers and medical leads group.

- CMCCN collaborate with other NW clinical networks to improve services to our patients within the NW – for example NW renal network.

- CMCCN continue to work with the 2 other NW critical care networks on regional wide projects such as AGEM data project and the NW transfer service project.

- Continue to host and support ongoing quality improvement for SCITT (Safe Critically Ill Transfer Training) programme (currently >4,000 staff enrolled across the NW)

- Monitoring of the amount of critical care transfers undertaken by or to CMCCN units incorporated into SILs audit database.

- Close Follow up reporting of all non-clinical transfers.

- Collection of transfer data for CMCCN transfer vehicle with Sparks medical and hospital coordinator team at LHCH.

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- Benchmarking project in relation to AHP roles in CMCCN units.

- Reinstatement of CMCCN AHP group to include all critical care roles. This group also provides 3 CMCCN representatives on the national critical care AHP group.

6. Transformation: Plan sustainable services that meet the needs of all patients.

The requirement to support consistency and reductions in unwarranted variation across the whole pathway needs to be an iterative process as clinical management changes as informed by cumulative experience, clinical audit and the emergence of new innovations and guidance based on research.

Although the current infrastructure of CMCCN does not permit scope for network led research it is imperative that the network is cognisant with any research or innovation that is being undertaken at a local and national level and that raising awareness of this is integrated within network activity. This includes ensuring that the latest guidance from bodies such as NICE, ICNARC, and SEISMIC are considered and reflected within network guidelines and standard operating procedures.

CMCCN is usually the conduit in providing respondents and participants for research on critical care staff – such as SEISMIC, National Critical Care rehabilitation research. CMCCN have taken part in national research programmes when a network perspective is sought – such as SEISMIC. Lead Nurse continues to be a network representative for the SEISMIC Research.

Network LSILS participate in unit-based research activity and will share and disseminate findings within LSIL forums. CMCCN QI and clinical groups are also forums for researchers to present their work and share best practice across the network.

Key achievements during 2023-24 for this network function include:

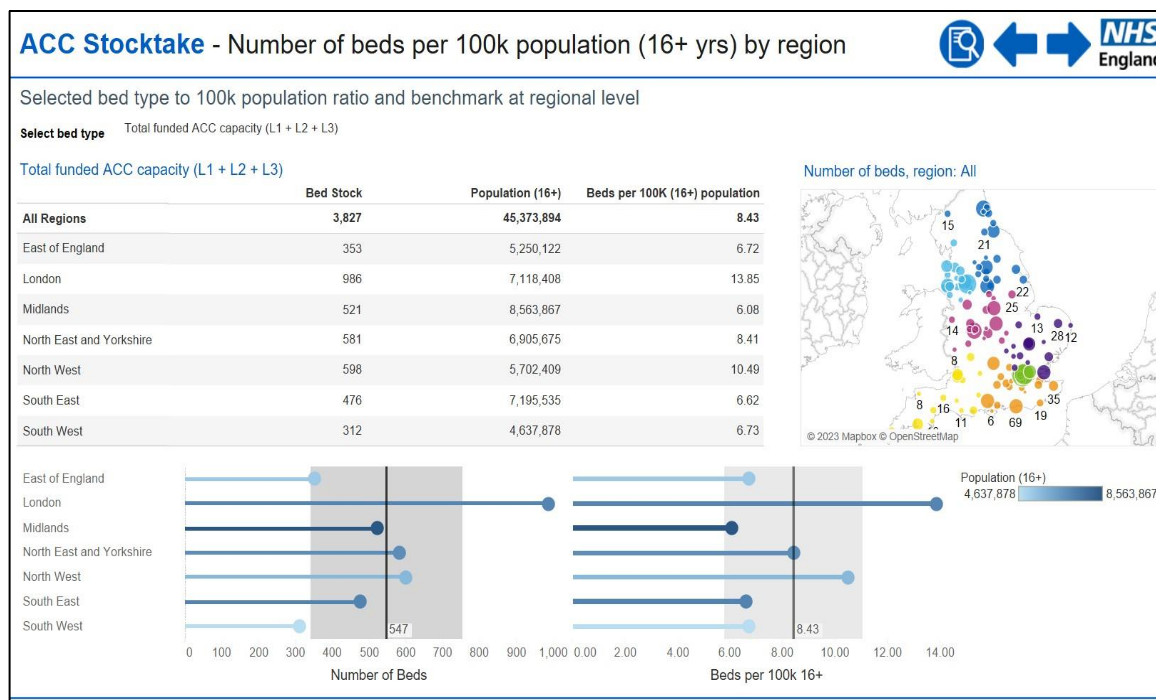
- CMCCN Lead Nurse will be part of national research teams specifically looking at the PNA role in critical care, Nursing Associate role and staff moves / retention.
- All CMCCN units participating national critical care research studies – ICNARC, SEISMIC
- Sharing Innovation and good practice within CMCCN groups– locally, regionally, and nationally for example sustainability work
- Actively build links with CMCCN research medical and nurse leads
- CMCCN annual Quality Improvement project sharing event. QI symposium currently being planned for September 2024.
- Continued review of network and organisational level critical care activity to identify any significant variances in volume and clinical case presentation to inform any potential requirements to reconfigure organisation, capacity and status of services provided.
- Work with CMCCN units if potential requirements to revise critical care bed stock in relation to the needs of the service.
- Contributed and acted as advisor in relation to critical care on Liverpool Women's Future Generations Clinical Action working group and workstreams in relation to critical care services at LWH.
- CMCCN act as the conduit for national NHSE ACC surveys and data collections such as the annual census, rehabilitation survey and digital survey.

7. Population health: Assess need, improve health, reduce inequalities

Critical Care is a finite resource, so it is essential that population, socio-economic and geographical factors across the network footprint are considered and actions taken to quantify and address these if any variation and inequity are identified.

From the CMCCN National ACC census data of 2023 when compared with the rest of Country the NW had lower critical care beds per 100,000 population compared with some areas of the country.

Figure 15 illustrates the bed stock and infrastructure in critical care units across England in place at the last annual stocktake in July 2023. This is broken down into national, regional and network bed stock and the levels of beds. Within CMCCN, – there had been no changes to the funded level 1 bed stock from previous stocktake in 2022, There has been a 2.1% increase in funded Level 2 beds equating to 2 beds, 1.8% decrease in funded level 3 beds which equates to 2 beds. Additional beds that could be used as surge beds has decreased by 16% or 8 beds since previous t years stocktake. Overall, there are no changes to the total number of adult critical care beds within CMCCN remaining at 208.



Total funded ACC capacity (L1 + L2 + L3)

	Bed Stock	Population (16+)	Beds per 100K (16+) population
All Regions	**3,827**	**45,373,894**	**8.43**
East of England	353	5,250,122	6.72
London	986	7,118,408	13.85
Midlands	521	8,563,867	6.08
North East and Yorkshire	581	6,905,675	8.41
North West	598	5,702,409	10.49
South East	476	7,195,535	6.62
South West	312	4,637,878	6.73

Figure 15.

Figure 16 depicts the regional number of beds per 100 K of adult population – the northwest region have 10.49 beds per 100 K of the adult population which is above national median of 8.43 beds.

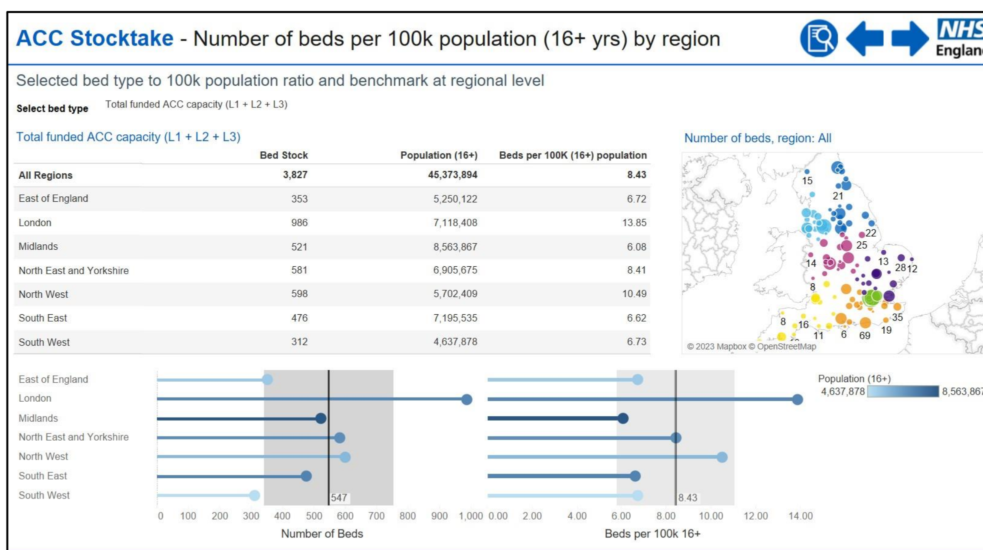


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Figure 16

Further work will be undertaken around health inequalities in relation to roll out of key National Projects in 2024.

Critical care rehabilitation is vital for patients within critical care – good early rehabilitation improves patient outcomes post critical care. NICE Clinical Guideline 83 rehabilitation after adult critical illness set outs key principles and recommendations in critical care rehabilitation The provision of critical care rehabilitation remains a key inequality in CMCCN critical care services – CMCCN peer reviews still demonstrate there is an inadequate critical care rehabilitation and where services are in place there is not 7 days per week provision. The CMCCN AHP benchmarking report reinforced the deficits within of designated AHP resource and workforce across all units which is subsequently a core factor in limiting the provision of critical care rehabilitation.

Key achievements during 2022-23 for this network function include:

- Robust peer review process has demonstrated all CMCCN units are struggling to meet the needs of patients in relation to critical care rehabilitation due to lack of designated AHP provision. CMCCN has assisted several of our CMCCN units in the provision of data to inform business cases for investment in rehabilitation services.

- CMCCN peer review process has highlighted gaps in the provision of psychology services within several CMCCN units. CMCCN has assisted several of our CMCCN units in the provision of data to inform business cases for introduction or development of clinical psychology services.

- Continued collaboration with the Cheshire and Merseyside Rehabilitation Network (CMRN) to ensure critical care patients with specialist rehabilitation needs access services most appropriate to their needs at the optimal stage in their recovery where the resource and provision is in place.

- Increased interface with the NHSE case manager to scope and access specialist rehabilitation or care where patient needs fall outside of standard health and social care provision.

- Participation in national rehabilitation survey in 2023 and CMCCN representation on national critical care rehabilitation peer review workstream.

- In response to concerns raised within the CMCCN peer reviews and service specification reports for 2023 CMCCN coordinated an Allied Health Professional (AHP) benchmarking exercise to quantify and report a more detailed understanding of deficits in relation to national recommendations and guidance

- The CMCCN AHP group reinstated in 2023 and has 3 representatives on the national Critical Care AHP group.

- Continuation of LSIL quality standards audit to benchmark direct care given to patients in CMCCN units.

8. And finally!

Central to CMCCN is the care and support provided to patients and their families with key objective of optimising survival and functional outcomes. We are very lucky to have patient representatives that are members of CMCCN groups – hearing patient stories and outcomes is the most valuable driver for improving services and care we deliver to our patients and their loved ones. CMCCN have a robust network Patient experience policy and CMCCN units are fortunate to have 4 ICU Steps / patient support groups in CMCCN – all accessible to our critical care patients. One of these groups is now a national forum and facilitates a support group for critical care relatives and exercise classes for post ICU patients. CMCCN plans to relaunch the patient experience group and an updated Patient experience policy in 2024.

CMCCN also want to recognise and thank all CMCCN multidisciplinary critical care teams for the compassionate, highly skilled, and patient safety centric care that is delivered continuously within all the critical care units. The staff are an absolute credit to critical care speciality.

9. Next Steps

The National Specification for Critical Care Operational Delivery Networks (ODN's) was released in 2023. and outlines the expected deliverables of the ODN's within seven key areas of functionality that have been referenced earlier within this report.

This annual report identifies that despite not having previous access to a formal specification up until 2023 the deliverables of CMCCN already strongly align to these requirements. The specification also advocates that the priorities and work plan for delivery should also be negotiated and agreed at a local level between the ODN, NHSE Specialised Commissioning Team and local Integrated Commissioning Board (ICB). CMCCN team meet regularly with NHSE and ICB teams to discuss workplans and risks.

The workplan for 2024/25. has been discussed and agreed with both NHSE and ICB and will be reviewed at ODN Board in June 2024.

Progress against the workplan during 2024-2025 will monitored and reviewed via the assurance and reporting process initiated by NHSE. Using a formal template this will involve the provision of a summary of progress against the workplan, financial update and description of current risks which will be uploaded to the Futures NHS Collaboration Platform in accordance with pre-agreed deadlines across the financial year.

Prior to submission the returns will be reviewed and ratified by the Joint ODN's board, and the definitive version will also be shared with the Cheshire and Merseyside ICB.