Swansea Bay University Health Board
Critical Care Implementation Plan – Phase 1 response (January 2020)

Introduction

National Improvement Programme Priorities

The following section provides an overview of the recommendations and priorities identified from the Critical Care National Improvement Programme.

The 7 work streams were, which formed part of the national critical care improvement programme are:

- Outreach
- PACU
- Long term ventilation (this is being hosted in Cardiff – we may need to think how we will utilise – however the referral criteria need to be set by Cardiff first)
- Transfers (hosted by EMRTS – we can discuss how we can utilise to provide more timely transfers of critically ill patients from Singleton EMU to Morriston)
- Workforce
- Demand/capacity
- Performance measures

Appendix 1 provides a fully copy of the findings from the Task and Finish Group on Critical Care (July 2019).

Overview of key conclusions from the Task and Finis Group

The need for critical care capacity worldwide is increasing. Future increase in demand is due to a number of factors including significant changes in the size and age of the population, increasing prevalence of relevant comorbidities, changing perceptions as to what critical care can offer and new/emerging treatments.

Changes to pension and taxation arrangements, which have occurred during the work of the task and finish group have further compounded workforce issues particularly in relation to consultant staffing. Most units are dependent on consultants doing additional sessions, which many now feel is no longer financially viable.

Inadequate capacity in critical care leads to deferred or refused admissions, cancellation of planned surgery, transfers of emergency patients, and premature discharges. These are highly undesirable events which degrade the quality of care delivered and may jeopardise outcomes.

Unless admission and referral practices change, the increased future demand can only be met by an increase in total critical care capacity. The task and finish group were clear, Wales **does**

need additional capacity, but this must be in conjunction with a combination of other initiatives/services such as intermediate care (PACUs, LTV, outreach, non-invasive ventilation (NIV) Level 1 areas etc.) and improved efficiencies (reducing delayed transfers of care (DToCs) and utilising staff effectively for example). We need to address existing workforce issues such as skills mix, recruitment, retention and training as well as increasing the numbers of appropriately skilled healthcare professionals to meet both the current and expanding capacity.

The task and finish group acknowledged the national programme is ambitious and if fully implemented will help ensure Wales have critical care services on a par with the best in the UK. Critical care staff throughout Wales work in a highly pressurised environment and the lack of capacity across the system has exacerbated this. The group hoped that both staff and patients will see there is now a clear commitment, backed up by robust recommendations and additional funding to help deliver a phased improvement programme.

There was unanimous support within the group for the work stream recommendations and their phased implementation across Wales. This includes:

- 24/7 critical care outreach across all secondary care hospitals
- Development of post anaesthetic care units (PACU) in all hospitals which undertake high risk surgery; this can include elective and emergency patients
- Better utilisation of the existing critical care workforce
- Development/expansion of the critical care workforce to meet professional standards Phased expansion of level 3 critical care beds prioritising hospitals which provide tertiary or specialist service
- Development of a dedicated regional transfer teams for critically ill adults
- Development of a Long Term ventilation (LTV) and weaning unit in South Wales
- Development of a critical care outcome measures dashboard.

In addition, the task and finish group recommended further consideration should be given:

- To consider ways to manage critical care staffing across regions rather than just within UHBs
- Increase in the number of training post graduate training places for medical staffing, and consider training routes for nursing including ACCPs
- To national or regional planning of critical care services
- The additional funding provided by the Welsh Government should be utilised to accelerate the expansion of services for patients who are critically ill and aid health boards to remodel the way they provide critical care services within their organisations
- Funding should be provided on an indicative basis to allow health boards to develop robust implementation plans which take account of remodelling existing resources, interdependencies/impact of the development and confirmation they are definitely able to recruit any necessary staff
- Transparent reporting of critical care outcome measure with robust escalation arrangements

Key work stream recommendations

Outreach work stream
Health boards must:

- Use the National Early Warning score (NEWS) in all clinical areas to allow rapid, objective detection of early acute deterioration
- Have a hospital specific Standard Operating Procedure that defines the response to acute deterioration. This will include details of the speed and urgency of response, the personnel involved and a jump call procedure. This policy will apply 24/7
- Define and/or resource a team to deliver this rapid response system 24/7. Critical Care Outreach, Hospital at Night, Nurse Practitioners, Resuscitation practitioners etc. should be integrated into this team to ensure efficient use of existing resources
- Ensure that rapid response team staff are appropriately trained and have regular competency assessments in line with the forthcoming National Critical Care Outreach Credential and Career Framework
- Ensure team staff have ring-fenced time to train ward staff
- Ensure team staff keep a record of their clinical work and record clinical outcomes on the patients they see to demonstrate improvement.

These metrics should be clinically relevant and standardised across Wales.

Post Anaesthetic Care Units (PACU) work stream
Health boards should develop PACU's to provide care to high risk surgical patients that cannot be delivered safely on a ward in the first 24 to 48 hours post-operatively and do not require the level of care provided in a critical care setting in line with the framework developed by the work stream.

Long Term Ventilation (LTV) work stream
Health boards should work with the specialist commissioner (WHSSC) to establish a single 10 bedded LTIV unit in south wales based in University Hospital Llandough.

Transfers work stream
Health boards should work with the specialist commissioner (EASC) to establish a dedicated regional transfer teams for non-urgent in hours transfers of critically ill adults.

Mapping, modelling and capacity work stream
Assuming the task and finish group approve the implementation of PACUs and a LTV Unit(s) and there is a reduction in DToCs the Mapping, Modelling and Capacity Workstream recommends health boards should increase their critical care beds numbers as set out below:

- 7 additional beds in Aneurin Bevan UHB
- **13 additional beds in Abertawe Bro-Morgannwg UHB (now Swansea Bay UHB) – see note below**

- 7.5 additional beds in Betsi Cadwaladr UHB
- 24 additional beds in Cardiff and Vale UHB 2 additional beds in Cwm Taf UNB – see note below
- No additional beds in Hywel Dda if other work stream recommendations, such as PACU and outreach, are implemented.

Any proposed increases will need to be undertaken in a phased manner over the next few years. University Hospital of Wales in Cardiff and Morriston hospital in Swansea require the greatest increase because of their high demand for tertiary services (on top of the regular demands for their catchment areas).

It should be noted the above recommendations do not take account of the Princess of Wales boundary changes, which were not implemented at the time the work stream report was drafted. Additionally recommendations from this work stream must be taken in conjunction with the recommendations of all work streams for maximum impact.

Appendix 2 includes some historic reports from 2009 and 2014 which identified critical care bed requirements across all Welsh Health Boards.

Workforce work stream

The current workforce for critical care is under strain and needs to be able to manage future expansion of critical care. Key recommendations to manage this are: Improving the capacity and flow of critical care to reduce the needs for expansion through a better utilisation of current available workforce o UHBs are encouraged to develop discharge coordination posts o UHBs are encouraged to review their allied health workforce and put in post sufficient numbers which will improve rehabilitation and reduce length of stay Use of extended roles and advanced practice A commissioned piece of work to explore management of staffing across health boards o Cross UHB staffing management o Shared contracts across units o UHBs are encouraged to staff to average bed utilisation A longer term cross Wales programme developed to improve the retention of current staffing, exploring the following. o Education and opportunities o Staff wellbeing initiatives o National career planning and retention strategies Utilising non critical care staff for critical care related service developments (e.g. transfers PACU, LTiV and Outreach).

Performance/Outcome measures work stream

The work stream sought to outline high level measures proposed for the ongoing monitoring and evaluation of critical care that will:

- Measure the overall performance of the critical care service across Wales
- Implement measures to demonstrate the impact of the critical care investment, services changes and transformation

The following measures for overall performance of the critical care service across Wales have been agreed, these include:

- Delayed transfer of care – over 4 hours
- Non-clinical transfers
- Bed activity

The following measures have been recommended to demonstrate the impact of the critical care investments, service changes and transformation within each workstream:

- Outreach:
    - Number of sites offering 24/7 outreach (currently 3/16)
    - Number of cardiac arrests within regular ward patients
    - Reduction in readmissions to critical care
- Post Anaesthesia Care Units:
    - Admissions directly to critical care from PACU
    - Re-admissions to critical care after step down from PACU
    - Reduction in cancelled operations due to lack of a critical care bed

- Long Term Ventilation:
    - Number of LTV patients in acute critical care units
    - Number of days on LTV in acute critical care units
    - Bed days saved

- Transfers:
    - Transferring Docs Grade
    - Quality and Safety Assessment Workforce:
    - Vacancies o Staff retention o Sickness rates

- Service model, demand and capacity:
    - Delayed admissions

Swansea Bay University Health Board

Background

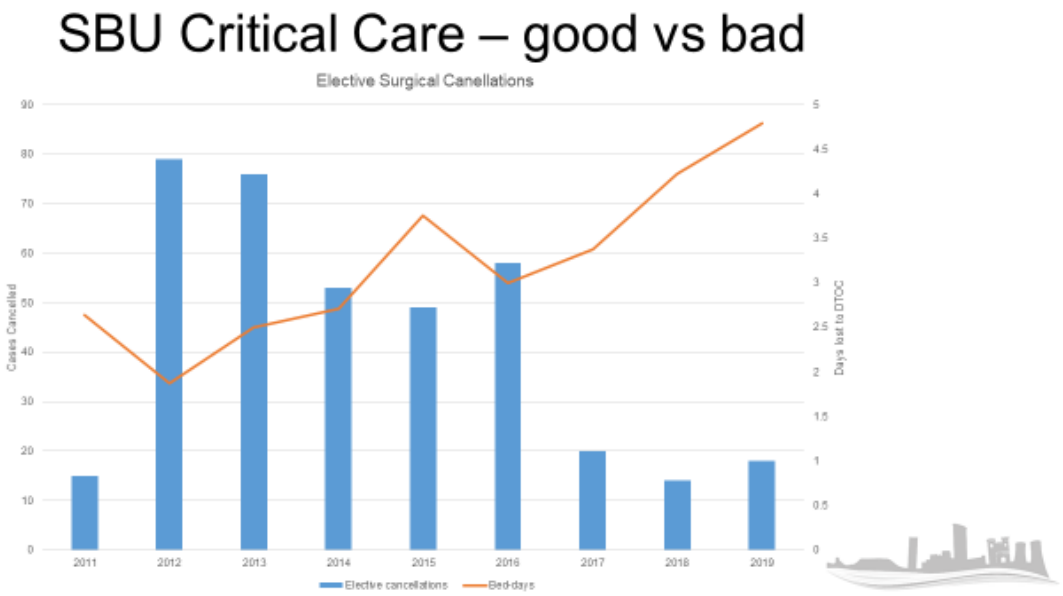
The attached report provides a comprehensive overview for the general critical care service provided in Morriston Hospital for SBUHB, on a range of key issues including quality outcomes, performance and capacity and demand issues

This provides a current baseline (18/19) against which improvements linked to the National Critical Care Improvement Programme can be measured.

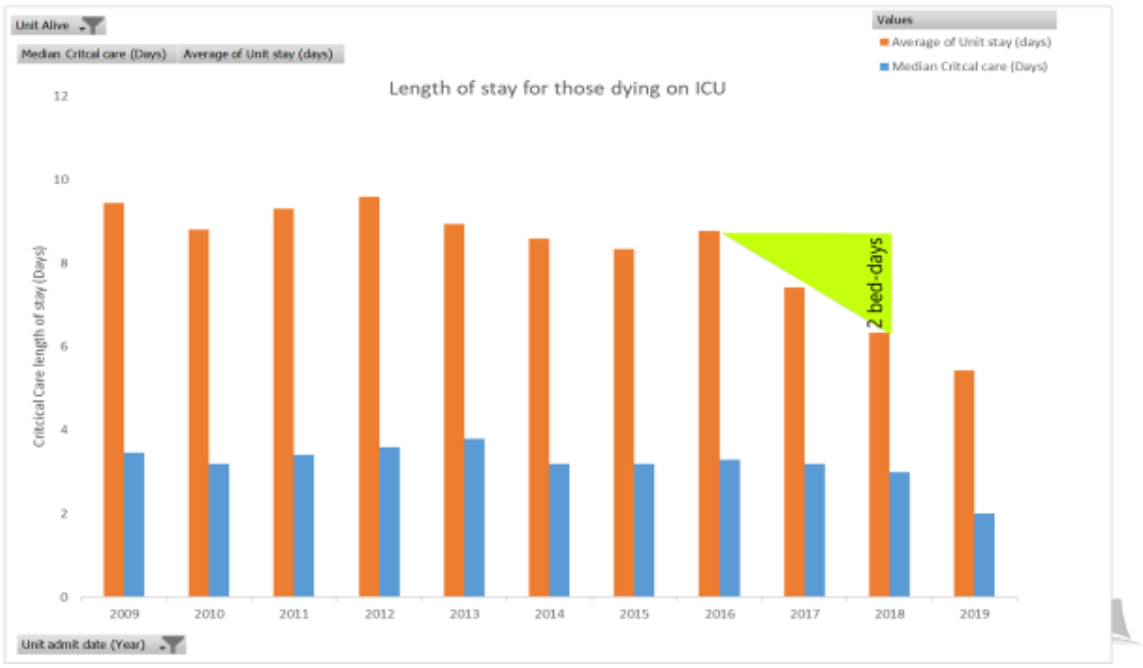
ICU - ICNARC 2018-19 analysis.doc

The key highlights are:

- Evidence to support **high quality ward care** and early deterioration recognition.
- **Worst performance in UK** for delayed transfers of care from ICU which is deteriorating year on year. 1502 bed-days 'wasted'. This has wasted the equivalent of 4 beds or **£1.2-£2.9 million.** N.b. this should not be seen as a CIP strategy as clear unmet need.
- Year on year **reduction in cancellation** of elective surgical cases requiring critical care
- ICU SMR (standardised mortality ratio) is 1.07, which is within expected range and variability.



- **Length of stay** for unit non-survivors has been **reduced** year on year, which is now in-line with other units. **This has released the equivalent of 2 extra critical care beds.**



- Admission numbers have been increasing, as is expected, until this year when they have plateaued; this is possibly due to lack of capacity and/or flow or could be linked to the development of a separate NIV Unit which became operational in December 2018 and strengthened critical care outreach service from April 2019.
- Survivor's length of stay (after removing DTOC) is within expected levels compared to similar units.
- Survivor's length of stay (after removing DTOC) has improved in the past year; this may reflect the temporary allied health professional funding.
- **Unmet need**: the acuity of patients admitted is far higher than other units; lower risk patients are likely missing out on level 2 monitoring and support.

<u>Health Board Priorities</u>
The following section put into priority order the 7 CIIG workstreams and identifies the key deliverables planned for 20/21 and 21/22 and beyond.

Recommendation 1: 24/7 critical care outreach across all secondary care hospitals

Please set out how you will undertake the following over the next 5 years:

- Use the National Early Warning score (NEWS) in all clinical areas to allow rapid, objective detection of early acute deterioration

Action(s) required	Lead person	By date
Full embedded across all clinical areas.	**na**	na

- Have a hospital-specific Standard Operating Procedure that defines the response to acute deterioration. This will include details of the speed and urgency of response, the personnel involved and a jump call procedure. This policy will apply 24/7

Action(s) required	Lead person	By date
Escalation and response arrangements included within the standard operational policy for acute deterioration to ensure consistent response 24/7	na	na
Establish an acute deterioration task and finish group which reports to the critical care steering group to progress with implementation of a consistent service model within the health board	Critical Care steering group	Qtr 4 19/20
24/7 acute deterioration Task and Finish group To develop a consistent service model for acute deterioration response across 24/7 period.	Senior Matron Critical Care/ Outreach Clinical Lead	Qtr 2 20/21

- Define and/or resource a team to deliver this rapid response system 24/7. Critical Care Outreach, Hospital at Night, Nurse Practitioners, Resuscitation practitioners etc. should be integrated into this team to ensure efficient use of existing resources.

Action(s) required	Lead person	By date
Resources for an integrated service team already identified and plan for teams to be transferred under one single manager agreed	Senior Matron Critical care	Completed qtr 3 19/20

- Ensure that rapid response team staff are appropriately trained and have regular competency assessments in line with the forthcoming National Critical Care Outreach Credential and Career Framework

Action(s) required	Lead person	By date
Acute deterioration task and finish group Develop competency assessment and framework for the integrated outreach and hospital at night service. Develop timeline for roll out and implementation	Senior Matron Critical Care/ Outreach Clinical Lead	On-going during 20/21

- Ensure team staff have ring-fenced time to train ward staff

Action(s) required	Lead person	By date
Acute deterioration Task and Finish group To develop a consistent service model for acute deterioration response across 24/7 period, including training and education activities - Morriston Hospital	Senior Matron Critical Care/ Outreach Clinical Lead	Qtr 2 20/21

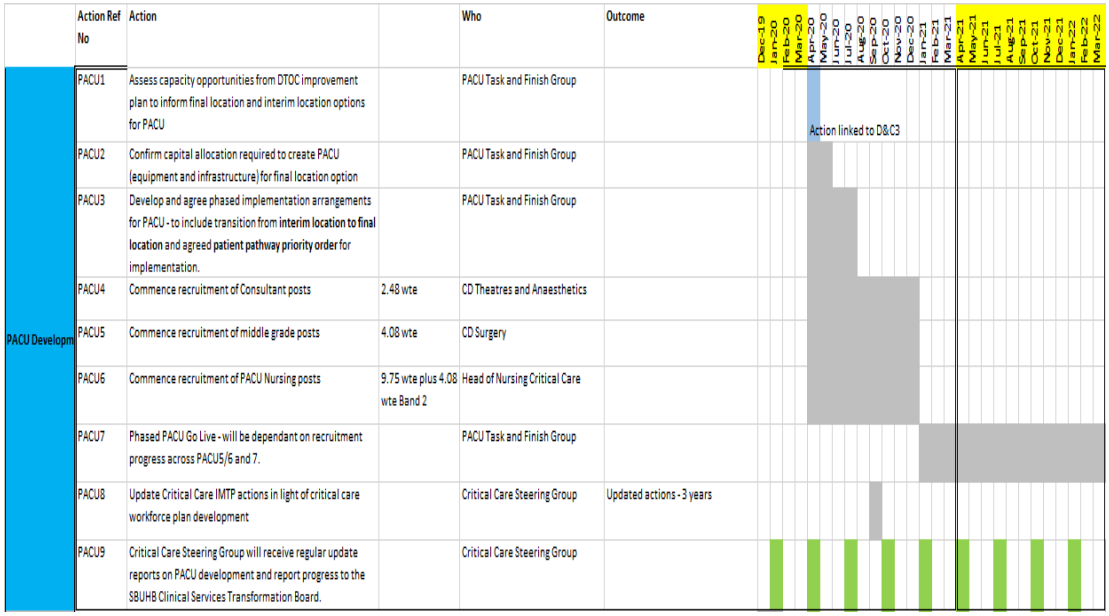
Action(s) required	Lead person	By date
To develop a consistent service model for acute deterioration response across 24/7 period, including training and education activities - Singleton Hospital	SHDU Management team/MHDU management team	

- Ensure team staff keep a record of their clinical work and record clinical outcomes on the patients they see to demonstrate improvement. These metrics should be clinically relevant and standardised across Wales.

Action(s) required	Lead person	By date
Ward Watcher is used to record clinical work and record outcomes of the service	na	na
Acute deterioration task and finish group Undertake an appraisal of options to meet future requirements for recording of clinical work and clinical outcomes. Ensure that approach uses agreed standardised metrics.	Senior Matron Critical Care/Outreach clinical lead	Qtr 4 20/21

Recommendation 2: Development of post anaesthetic care units (PACU) in all hospitals which undertake high risk surgery; this can include elective and emergency patients

Health boards should develop PACU's to provide care to high risk surgical patients that cannot be delivered safely on a ward in the first 24 to 48 hours post-operatively and do not require the level of care provided in a critical care setting in line with the framework developed by the work stream. (See detailed project plan/timeline)



	Action Ref No	Action		Who	Outcome
PACU Developm	PACU1	Assess capacity opportunities from DTOC improvement plan to inform final location and interim location options for PACU		PACU Task and Finish Group	
	PACU2	Confirm capital allocation required to create PACU (equipment and infrastructure) for final location option		PACU Task and Finish Group	
	PACU3	Develop and agree phased implementation arrangements for PACU - to include transition from **interim location to final location** and agreed **patient pathway priority order** for implementation.		PACU Task and Finish Group	
	PACU4	Commence recruitment of Consultant posts	2.48 wte	CD Theatres and Anaesthetics	
	PACU5	Commence recruitment of middle grade posts	4.08 wte	CD Surgery	
	PACU6	Commence recruitment of PACU Nursing posts	9.75 wte plus 4.08 wte Band 2	Head of Nursing Critical Care	
	PACU7	Phased PACU Go Live - will be dependant on recruitment progress across PACU5/6 and 7.		PACU Task and Finish Group	
	PACU8	Update Critical Care IMTP actions in light of critical care workforce plan development		Critical Care Steering Group	Updated actions - 3 years
	PACU9	Critical Care Steering Group will receive regular update reports on PACU development and report progress to the SBUHB Clinical Services Transformation Board.		Critical Care Steering Group	

Recommendation 3: Better utilisation of the existing critical care workforce
The current workforce for critical care is under strain and needs to be able to manage future expansion of critical care. Key recommendations to manage this are:

- Improving the capacity and flow of critical care to reduce the needs for expansion through a better utilisation of current available workforce
    - UHBs are encouraged to develop discharge coordination posts
    - UHBs are encouraged to review their allied health profession workforce and put in post sufficient numbers which will improve rehabilitation and reduce length of stay
- **Recommendation 4**: Development/expansion of the critical care workforce to meet professional standards

Action(s) required	Lead person	By date
Undertake a review of critical care workforce budgets: • To confirm baseline critical care nursing requirements, including skill mix requirements for Singleton EMU and nurse leadership posts; and • Develop proposal for enhancement of critical care AHP workforce.	MHDU Senior team	End of March 2020
To progress with recruitment of enhanced AHP workforce and develop and agree evaluation framework for enhanced workforce plan.	Clinical Support Service Group Manager (MHDU)	20/21 QTR 1/2
Finalise substantive recruitment of temporary COO and Hospital at night Band 3 posts	Senior Matron Critical Care	20/21 Qtr 1
Undertake a review of consultant expenditure in critical care and develop a sustainable workforce proposal for approval	Clinical Director for Critical Care	20/21 qtr 1
Commence recruitment for PACU medical and nursing posts	Senior Matron Critical care CD Anaesthetics CD Surgery	20/21 qtr 1

Use of extended roles and advanced practice

Action(s) required	Lead person	By date
Develop a second phase workforce plan for extended roles and advanced practice roles	CD Critical Care	20/21 qtr 3/4

Action(s) required	Lead person	By date
	Senior Matron Critical Care	

SBUHB will not be progressing discharge coordination posts as part of its workforce plan, as discharge coordination is already embedded into the nurse in charge role.

Recommendation 5: Phased expansion of level 3 critical care beds prioritising hospitals which provide tertiary or specialist service

Health boards should increase their critical care beds numbers as set out below:

- 7 additional beds in Aneurin Bevan UHB
- 13 additional beds in Abertawe Bro-Morgannwg UHB (now Swansea Bay UHB)
- 7.5 additional beds in Betsi Cadwaladr UHB
- 24 additional beds in Cardiff and Vale UHB
- 2 additional beds in Cwm Taf UNB
- No additional beds in Hywel Dda if other work stream recommendations, such
- as PACU and outreach, are implemented

Action(s) required	Lead person	By date
Commission external support to complete a comprehensive demand and plan for critical care requirements for the next 5years.	SBUHB Critical Care Steering Group	20/21 Qtr 1/2
Develop a Critical Care DTOC improvement plan which links into wider HB transformation programmes (Hospital to Hone/acute medical model/Frailty redesign) and has clear improvement trajectories linked to system	SBUHB Critical Care Steering Group	20/21 Qtr 1
Establish clear evaluation arrangements for all planned changes to ensure that impact/benefits are clearly measured. Provide regular reports to the Critical Care Steering Group on implementation progress and impact.	Task and Finish Group leads	20/21 on-going
Develop a high level assessment of the capital and revenue requirements for an increase in critical care beds in Morriston Hospital to inform future requirements (+5 years)	SBUHB critical care steering group	20/21 qtr 3

NB: Include your plan to reduce DTOCs to less than 5% of discharges

Recommendation 8: Development of a critical care outcome measures dashboard

Action(s) required	Lead person	By date
Health Board to include key performance and outcome measures for critical care in Organisational Performance Dashboard	Associate Director of Performance	Qtr 1 20/21

Appendix 1

National Task and Finish Group on Critical Care

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up-on-critical-care-f

Appendix 2

All Wales Capacity Paper September 09 2009

written-statement-provision-of-critical· 2014