Delivery Plan for the critically ill to 2020

Highest standard of care for everyone who is critically ill.
Produced by the Wales Critical Care and Trauma Network and the Critically ill Implementation Group.

February 2017
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Introduction by Steve Moore, Chief Executive of Hywel Dda University Health Board and Chair of the Critically ill Implementation Group

This refreshed delivery plan for the critically ill, reaffirms the Welsh Government’s commitment to ensuring everyone who is critically ill has access to timely, effective and safe services.

We have made progress in improving the care of people who are critically ill in Wales. Survival rates for patients who have been cared for in critical care departments are increasing, 83% in 2015-16 compared to 79% in 2011-12. Less than 1% of all patients discharged from critical care were readmitted within 48 hours in the first quarter of 2016 and the number of patient transfers for non-clinical reasons has reduced over the last five years by 21%. However, we need to do more to improve care to ensure that the most critically ill people get the most appropriate care, including tackling staffing challenges, reducing the average length of stay and reducing delayed discharges to other wards.

All stakeholders continue to work together well to support our on-going improvement. Health Boards and NHS Trusts have already embedded the aims of the delivery plan for the critically ill, so in this next phase of the plan, I expect to see health boards delivering change at pace and achieving improved outcomes for everyone who is critically ill. I also expect health boards’ plans for the critically ill to be fully integrated within their strategic planning, and for national standards to be fully delivered.

We have an enormous challenge ahead of us. Due to our growing and ageing population, demand for critical care is increasing at around 4-5% per year. This demand will be set against the finite resources available for health and care services in Wales, which makes it challenging to simultaneously improve quality and performance.

At the same time as the population ages, social and community care in Wales is facing its own challenges which make flow through our hospitals more difficult. The effect of this is felt strongly in critical care and the ability of hospitals to maintain throughput through critical care beds. The implementation group will work with local hospitals, Welsh Government and the wider systems to address this as a priority, looking to new, innovative ideas to help repatriation and community based care.

We need to continue our efforts to ensure critical care is only provided where it is in a person’s best interests and appropriate care is provided to those where it is not. I know that health professionals, management teams and the patients themselves are working hard to achieve the best outcomes. The purpose of this delivery plan is to support and encourage this effort by providing national leadership, encouraging collaborative working and planning ahead. We are more likely to get to where we need to be by working together.

Our refreshed delivery plan for the critically ill continues to provide a framework for action by Health Boards and NHS Trusts working with their partners. It sets out actions to improve the critically ill patients’ experience and outcomes, reducing inequalities and variability in access to services. It seeks to ensure that those who require critical care receive it in an appropriate environment, cared for by sufficient numbers of suitably qualified and experienced staff.
Critical care is an expensive and valuable resource so it must be used for those who need it, when they need it. Critical care is not appropriate for all patients, so we must support patients, families and clinicians to have open and honest conversations about escalation of treatment, appropriateness of critical care and death.
1. Overview and Context

This plan encompasses a range of actions to meet the needs of people who are, or at risk of being critically ill. These will focus on the quality of the service and the outcomes it delivers by looking at compliance with standards, benchmarking with others and identifying areas for improvement.

Patients requiring critical care are relatively low in number (around 9,600 per annum) but, when critical care is required, access needs to be timely and often rapid. By the very nature of the intensive therapy provided, critical care beds are amongst the most costly resource within the health service.

NHS Wales has a lower number of critical care beds for the size of the population than the rest of the UK. It is therefore all the more important they are used to maximum efficiency and effectiveness by minimising avoidable or unnecessary admissions and ensuring timely discharge. We acknowledge efficiencies alone will not be enough to cater for the increasing demand and further investment to increase critical care capacity is necessary.

Despite efforts to work towards making improvements in the care of people who are critically ill, there is a need to raise the profile of the issues and deliver a quicker pace of change. We need to facilitate the delivery of integrated, high quality, affordable models of care in the face of growing demand.

In 2014, the Critical Care Networks carried out a study into unmet demand for critical care on behalf of the Critical Care Implementation Group. The study showed that, using conservative estimates and assuming no change in current practices, 73 additional critical care beds would be required across Wales immediately with an ultimate increase of 295 beds on the 2013 bed numbers required by 2023. Due to the way staffing is planned for clusters of beds, there are some areas where bed numbers could be increased without significant staffing uplift.

There has been change in recent years in the number of beds available for critically ill patients in Wales. In 2014, there were 168 critical care beds in Wales and in 2016 there are 176, an increase of 8 beds in total over the 14 hospitals with critical care units\(^1\). Some of these beds have been created as Post Anaesthetic Care Unit (PACU) Level 1 capacity to help the flow of elective patients through the hospital and would therefore not be available to any Level 2 or 3 patient requiring a critical care bed\(^2\).

We know there have been shifts in the flow of patients suffering conditions such as out of hospital cardiac arrests, head injuries and major trauma following the introduction of the Emergency Medical Retrieval and Transfer Service (EMRTS), which is bypassing local hospitals to take sick and injured patients directly to tertiary (specialist) centres. It is likely that these changes to patient flows will not obviously reduce demand in non-specialist centres because of hidden unmet need.

Children who are critically ill should also receive the best possible support and care wherever they are treated. We also need to consider how we can better engage with patients and gain an insight into their experience, both nationally and locally, to ensure services are improved accordingly. We must make use of the clinical leaders in this field to

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\(^1\) Wales critical care and trauma network management information

\(^2\) Levels or tiers of critical care are defined in Annex 1
drive system change and be responsive to clinical audit and peer review findings, as well as more proactively embedding improvement programmes.

There is some common ground with other Welsh Government Delivery Plans, such as those for cancer, stroke, diabetes, liver, respiratory health, heart and neurological conditions. For some people, for whom critical care is not in their best interests, it may be appropriate to refer to the Delivering End of Life Care Plan.

This refreshed delivery plan builds on the first phase and gives the service the vital continuity of approach it needs. The plan is set out in a similar structure and the chapters are underpinned throughout by the need for quality patient information. The plan includes streamlined introduction and performance reporting sections. It has also been written to reflect the latest strategic drivers, including prudent healthcare and new legislation.

2015 saw the publication of the Guidelines for the Provision of Intensive Care Services which build on previous standards and are the first step towards the development of a definitive reference source for the planning and delivery of UK Intensive Care Services. With these foundations now in place it is now time to place a greater emphasis on outcomes. This means ensuring patients are cared for in safe, high quality environments by sufficient numbers of qualified and experienced staff. It also means reducing the hospital wide inefficiencies which result in poor flow through the critical care units to ensure the appropriate level of critical care is available to those who need it, when they need it.
2. Delivering appropriate effective ward based care

Over 9,500 patients are treated in critical care in Wales each year\(^3\). Critical care is not in every patient's best interests, particularly for those near the natural end of life, therefore effective care planning for critically ill patients is needed to ensure more efficient and appropriate support for all.

All acute admissions to the hospital should receive a consultant review within 12 hours, as recommended by National Confidential Enquiry into Patient Outcome and Death (NCEPOD) report *Emergency Admissions: A journey in the right direction?* (2007). Clinicians should, where possible, discuss with patients and families what levels of care would be appropriate in the event of a deterioration in the patients’ condition. This will improve referrals to Critical Care and ensure that patients are only admitted if admission is wanted and appropriate.

Early identification of patients whose condition is deteriorating can sometimes prevent the need for admission to critical care by offering early intervention. Where patients do require critical care, early identification and intervention can prevent further deterioration, reduce length of stay and possibly prevent death. The introduction of Critical Care Outreach services as a response to the NICE CG (50) *Guidelines on Acutely Ill Adults in Hospital* has started to show benefits in terms of reduced inappropriate admissions through early recognition, structured assessment and treatment, and on-going education for ward nursing and junior medical staff.

Some patients with learning disabilities can deteriorate rapidly and this may be difficult to identify especially if they are unable to communicate verbally, carers often accompany patients in hospital and listening to their concerns may help in identifying where a person is in danger of deterioration in their condition. Accessing the learning disability liaison nurses, where they are employed can support staff to ensure reasonable adjustments are made.

The Critical Care Outreach team is the major force in educating the rest of the hospital about conditions such as sepsis and acute kidney injury; however they provide an adjunct not a substitute for the care provided by the ward-based clinicians.

- Patients who become acutely ill whilst on wards benefit from early recognition and intervention with rapid treatment and escalation if needed. National Early Warning Scores (NEWS) are designed to identify such deteriorating patients so should be utilised uniformly by Health Boards.

- Sepsis is the leading admission diagnosis to critical care in the UK, with a very high mortality rate of around 30–50\(^4\). Simple screening tools used alongside the NEWS criteria and early intervention has been shown to reduce this burden. The Sepsis Six approach as endorsed by the 1000 Lives Improvement programme and its Rapid Response to Acute Illness Learning Set (RRAILS) should be rigorously implemented in all organisations. We strongly support the Peer Review of care of the acutely ill or deteriorating patient that is due to commence across Wales in early 2017.

- The NCEPOD Report: *Adding Insult to Injury*, published June 2009, reviewed the care of patients who died in hospital with a primary diagnosis of acute kidney injury (acute

\(^3\) Welsh Government, Together for Health – Annual Report for the critically ill 2016

renal failure). It noted that a fifth of post admission acute kidney injury was both predictable and avoidable. It also noted that there were unacceptable delays in recognising post-admission acute kidney injury in 43% patients.

The high-risk surgical population accounts for a minority of cases but is responsible for the majority of postoperative complications, prolonged hospital admissions and deaths. It is now recognised that:

- Health Boards should not only screen their surgical patients for risk of mortality pre-operatively but should review their Level 2 (High Dependency) capacity to accommodate these patients.
- Patients undergoing general surgery (with particular emphasis on emergency laparotomy), with a greater than 10% risk of death should be admitted to critical care after their surgery to prevent unexpected deaths.

If immediate access to the critical care unit is delayed for non-clinical reasons it constitutes a delayed admission. This includes any organisational delay beyond the time taken to initially resuscitate and move the patient. Delayed admission worsens outcome.

Patient safety is also compromised where patients are cared for in a setting that is inappropriate for their required level of care. This can include caring for critically ill patients in non-critical care areas such as theatre recovery, Emergency Departments or on wards. It is also known that patients who could benefit from critical care are sometimes not referred due to persistent lack of capacity.

In addition, there is evidence that patients are frequently admitted to the Critical Care units, when they do not need organ support (i.e. only need Level 1 care), such as when receiving an epidural after uncomplicated surgery, uncomplicated pancreatitis, spinal injury, upper GI (gastro-intestinal) bleed etc. Similar inappropriate admissions are frequent for patients requiring specialist single organ support services such as Non-Invasive Ventilation (NIV), Continuous Positive Airway Pressure (CPAP) and renal support. Other Level 1 admissions include patients requiring insulin infusions and tracheostomies. This wastes critical care resource and prevents timely admission of the truly critically ill patients. Due to the de-skilling and lack of experience of general ward staff, Critical Care Units are increasingly seen by non-Critical Care practitioners as “safe havens” for any patient who has increased monitoring needs (such as the groups above).

This problem is more apparent in the small and medium size hospitals with less than 8 critical care beds, where flexible use of the existing capacity is often prevented due to hospital flow and skill-mix issues, creating high level of occupancy and overcrowding of the Critical Care Units.

Inequities in access not only occur between Critical Care Units but are also dependent on demand. There will always be times of high bed occupancy and increased demand. However, flow through the whole hospital system should enable timely admission. The Intensive Care Society (ICS) states that critical care units should run at occupancy of 65-70%. Occupancies higher than this are known to lead to cancelled operations, non-clinical transfers and delayed admissions, each of which have their own impact on outcomes for patients.

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5 National Confidential Enquiry into Patient Outcome and Death: Adding Insult to Injury, published (2009)
Undertaking a critical care transfer for non-clinical reasons such as lack of a critical care bed puts the patient at risk. Cancelling operations due to lack of critical care beds, often on the day of surgery, is not only counter to the patient’s best interests (these patients are usually high risk) but are also costly in terms of surgeon and surgical team time and unused theatre capacity that cannot be filled last minute. Late theatre starts (and therefore finishes) are often also a consequence of lack of critical care beds; in 2012-13 the Delivery Support Unit estimated the costs of unused theatre time at £8.33/min.

Where appropriate, some patients need prompt access to co-ordinated, effective and compassionate palliative and end of life care (NICE CG31: Care of dying adults in the last days of life). The latest National Confidential Enquiry into Patient Outcome and Death report, *Time to intervene*, demonstrates failings in decision making about end of life care for many patients. Where relevant, care should be provided in line with the *Delivering End of Life Care Plan*. The ethical issues around advanced planning for patients – and critical care patients in particular – are difficult and will require a specific workstream to consider the best way forward. The NHS in Wales should, however, continue its ongoing work to develop a single policy for Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) decisions. These decisions need to be clearly made, documented and audited.

### Performance Framework

**Delivering appropriate effective ward based care. Health Boards, working with partners from 1000 Lives Improvement Programme and Renal Network to:**

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<thead>
<tr>
<th>Key Action</th>
<th>Process</th>
<th>Measure</th>
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| 1. Ensure all acute admissions to secondary care are reviewed by a consultant within 12 hours of admission with a clearly documented decision about DNACPR and escalation of care. These should be regularly audited. | **Audit of sample of patient hospital notes**  
- Documented review by consultant within 12 hours  
- Documented decision about DNACPR and escalation of care | **Percentage of acute admissions seen by a Consultant within 12 hours of admission.**  
**Percentage of acute admissions to hospital where the patient has a documented decision regarding escalation of treatment.** |
| 2. Ensure all hospital in-patients have National Early Warning Scoring (NEWS) and an agreed protocol for escalating referral where indicated. Implementation and appropriate use of this process is regularly audited. | **Audit of sample of patient observation charts**  
- Documented NEWS  
- Documented escalation, as per protocol, where indicated | **Percentage of patients who have a NEWS completed and documented.**  
**Percentage of patients escalated as per NEWS protocol.** |
| 3. Develop and/or extend the operational hours of Critical Care Outreach teams, to 24/7, in sites with acute medical and surgical admissions. | **Record hours of Critical Care Outreach** | **Compliance with 24/7 Outreach** |
| 4. Ensure all patients with NEWS ≥6 are screened for sepsis using the All Wales Sepsis Screening Tool and appropriate care | **Audit of sample of patient observation charts**  
- Documented sepsis escalation, as per protocol, where | **Percentage of patients with NEWS > 6 that were screened for sepsis.**  
**Percentage of patients with sepsis put on the** |
<table>
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<tr>
<th>Pathway delivered where indicated. The implementation of this process should be the responsibility of the ward clinicians, with support from Critical Care Outreach</th>
<th>indicated</th>
<th>appropriate care pathway.</th>
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| Ensure all acute admissions are assessed for the risk of developing acute kidney injury. | • Audit of sample of patient hospital notes  
  ○ Documented assessment for AKI | • Percentage of patients who had an assessment for acute kidney injury on admission and the risk of developing acute kidney injury post admission. |
| Put in place a process to ensure all patients requiring general surgery (and especially all patients undergoing emergency laparotomy) have their mortality risk calculated - those with a score of predicted mortality 10% or greater will require assessment for post operative critical care admission | • Audit of sample of patient hospital notes (as above)  
  ○ Documented mortality risk calculated  
  ○ Admission to critical care, where indicated | • Percentage of general surgical patients with a predicted mortality score documented.  
  • Percentage of general surgical patients with a predicted mortality score of greater than 10% cared for outside critical care.  
  • Percentage of emergency laparotomy patients deemed suitable for critical care admission admitted to critical care post-operatively. |
| Ensure that all sites performing acute emergency surgery are participating in the National Emergency Laparotomy Audit (NELA) | • Participation in NELA study | • Compliance with NELA study |
| Ensure systems are in place to provide prompt (within 60 minutes for emergencies) access to critical care and, if not available on site, to transfer patients safely by appropriately trained staff. All transfers to be audited by the Critical Care and Trauma Network using the all Wales Critical Care Transfer Audit. | • Audit patient hospital notes and WardWatcher database  
  ○ Time of admission to critical care (WardWatcher) from time of acceptance (notes)  
  ○ Audit ‘forms returned’ to Critical Care & Trauma Network | • Percentage emergency admissions admitted to critical care within 60 minutes  
  • Percentage forms returned to Critical Care & Trauma Network  
  • Percentage of transfers graded excellent or good. |
| Ensure that patients needing Level 1 care are appropriately looked after, by appropriately trained nursing staff, in the general ward environment | • Audit of patients admitted to critical care for Level 1 care only | • Number of CCMDS critical care admissions for Level 1 care “episodes where L2 and L3 = 0” |

6 CCMDS – Critical Care Minimum Data Set
and not admitted to Critical Care.

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<tr>
<th>10. Develop pathways to reduce critical care admissions for single organ renal support and non-invasive respiratory support.</th>
<th>• Audit of patients admitted to critical care for single organ support e.g. RRT or NIV only</th>
<th>• Number of patients admitted to critical care for single organ support e.g. RRT or NIV only</th>
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<tr>
<td>11. Monitor cancelled operations and non-clinical transfers due to lack of critical care beds.</td>
<td>• Audit cancelled operations due to lack of a critical care bed</td>
<td>• Number of cancelled operations due to lack of a critical care bed</td>
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<td>• Audit non-clinical transfers due to lack of a critical care bed</td>
<td>• Number of non-clinical transfers due to lack of a critical care bed</td>
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3. Effective Critical Care Provision and Utilisation– The Right Care

Critical care patients are amongst the sickest in the hospital requiring specialist care and multi-organ support. Such patients require the on-call consultant to have daytime sessions on the unit and no other commitments whilst on-call. Likewise, junior/middle grade doctors supporting the consultants should have no other responsibilities except for resuscitation within the hospital. The 2015 Workforce Review by the Faculty of Intensive Care Medicine (FICM) shows that many hospitals in Wales do not meet those standards.

Critically ill patients also need sufficient numbers of qualified and experienced nurses, physiotherapists, speech and language therapists, occupational therapists, pharmacists and dieticians. There are few, if any, Critical Care Units in Wales that comply with the ICS core standards in this respect.

There are times, often over the winter months but not exclusively, whereby surge capacity is required to manage unplanned increases in demand for critical care. Health Boards must plan for a 100% increase in Level 3 adult critical care capacity, ensuring plans are realistic and sustainable.

It is vital that Health Boards use their Integrated Medium Term Plans (IMTPs) to describe how they have assessed the population need for critical care and how they will provide and structure their critical care provision and invest to meet demand for critical care. These plans must be completed in conjunction with partner organisations where populations overlap and specialist services require patients to be transferred between hospitals. This will include the development of robust workforce plans to ensure appropriately skilled doctors, nurses and other health professionals are available to provide care to people who are critically ill.

There is also scope for considering the use of the third sector to provide support in critical care units for example, using volunteers to welcome relatives to the unit, liaising between relatives and staff and providing refreshments when required.

It is widely recognised that patient-centred rehabilitation programmes should be commenced as early as possible. Assessment of the rehabilitation needs of all patients should be undertaken within 24 hours of admission to Critical Care. For patients at risk, and based on the comprehensive clinical assessment, short-term and medium-term rehabilitation goals need to be agreed.

Improving the patients’ and carers’ experience of care must be a key priority for NHS Wales. A focus on the ‘patient experience’ plays a vital role in the drive to improve the quality of care. Whilst advocating the Framework for Assuring Service User Experience many patients have limited recollection of their time in critical care. We therefore expect Health Boards to undertake the National Carers’ Survey in all Critical Care Units and, where possible, utilise patient diaries as an additional source of feedback.

Participation in national clinical audits relating to the critically ill is a mandatory requirement which health boards must ensure is achieved. Full participation with Intensive Care National Audit and Research Centre’s (ICNARC) Case Mix Programme is required to effectively monitor outcomes, to provide comparative data and allow effective benchmarking. Data should be used for patient/pathway improvement, to look at clinical performance, and for research. Health boards should have the capability to analyse local data to assess the services they provide to their population.
The Health and Care Standards published by Welsh Government in 2015 are designed so that they can be implemented in all health care services, settings and locations. They establish a basis for improving the quality and safety of healthcare services by providing a framework which can be used in identifying strengths and highlighting areas for improvement. All health services in Wales need to demonstrate that they are doing the right thing, in the right way, at the right time and with the right staff. Peer Review of Critical Care services will help teams demonstrate that they are compliant with the Health and Care Standards Framework.

Peer review of the quality of healthcare to support and inform the planning and delivery of services has strong clinical support and has proven to be an effective and inexpensive way of evaluating services, making targeted improvements and sharing best practice. Welsh Government now expects health boards and trusts to ensure peer reviews are embedded as part of the quality improvement drive with resources being made available from the outset.

The 1000 Lives Improvement Programme, NCEPOD and NICE have developed clinical bundles and guidelines that represent effective care for patients. Health Boards must demonstrate (through clinical audit) high compliance with this evidence-based care. In addition, units should hold regular multidisciplinary clinical governance meetings. These meetings will cover mortality and morbidity, issues with risk and safety, complaints received and quality improvement projects including multidisciplinary clinical audit.

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<th>Performance Framework</th>
<th>Effective Critical Care Provision and Utilisation– The Right Care. Health Boards working with 1000 Lives Improvement Programme and Critical Care and Trauma Network to:</th>
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<tr>
<td>Key Action</td>
<td>Process</td>
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| 12. Ensure Critical Care facilities are utilised by patients requiring intensive (Level 3) care and/or high dependency (Level 2) care only. | • As for key action 9  
• Audit of patients admitted to critical care for Level 1 care only | • Number of CCMDS critical care admissions for Level 1 care “episodes where L2 and L3 = 0”  
• Number of CCMDS critical care days at Level 1 care “episodes where level 2 and level 3 days less than total stay” |
| 13. Ensure that critical care patients are managed by dedicated critical care consultants and middle tier doctors, as outlined in Annex 1. | • Audit of medical staffing as outlined in Annex 1. | • Compliance with dedicated critical care consultants and middle tier doctors, at all times. |
| 14. Ensure that critical care Units have correct staffing levels (nursing and AHPs) | • Audit staffing (nursing and AHPs) as outlined in ICS Core standards. | • Compliance with ICS core standards for nursing and AHPs. |
| 15. Ensure that all there are surge plans in place to escalate Level 3 capacity 100% if required. | • Demonstration of 100% Level 3 increase. | • Compliance with surge plans. |
| 16. Align critical care delivery with Service Reconfigurations and national standards whilst | • Audit of critical care against ICS Core standards  
  ○ Review whilst planning Service | • Compliance with ICS Core standards |
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<th></th>
<th>continuing to ensure patient safety of unselected admissions.</th>
<th>reconfigurations</th>
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| 17. | Refer to Welsh Government Unmet Need Study to ensure adequate Critical Care provision for unmet need both now, and in the future. | • Assessment critical care provision against Unmet Need Study (published by WG 2014)  
• Inclusion of plans to meet critical care demand in health board’s planning processes | • Compliance with Critical Care provision for unmet need both now, and in the future. |
| 18. | Ensure assessment of the rehabilitation needs of all patients within 24 hours of admission to Critical Care. | • Audit sample critical care patient hospital notes  
  o Documented assessment of rehabilitation needs within 24 hours of admission to critical care | • Percent patients receiving Short Clinical Assessment (SCA)  
• Percent patients, identified at risk on SCA, receiving Comprehensive Clinical Assessment (CCA) |
| 19. | Ensure all patients, identified at risk via a comprehensive clinical assessment, receive a Rehabilitation Prescription/Plan citing rehabilitation requirements. | • Audit critical care patient hospital notes  
  o Copy of Rehabilitation Prescription/Plan citing rehabilitation requirements. | • Percentage of critical care patients, identified at risk, with Rehabilitation Prescription/Plan citing rehabilitation requirements. |
| 20. | Put effective mechanisms in place for seeking and using patients’ and carers’ views about their experience of critical care services including the collection of patient and carer feedback from a number of sources such as diaries, surveys, concerns, complaints, compliments and clinical incidents; act upon feedback. | • Survey of patients’ and carers’ views about their experience of critical care services | • Compliance with patients’ and National carers’ survey.  
• Compliance with action plans from feedback. |
| 21. | Openly publish information on the performance of care of the critically ill in terms of safety, effectiveness, patients’ and carers’ views | • As for key action 20  
• Survey of patients’ and carers’ views about their experience of critical care services  
• Compliance with ICNARC and CCMDS | • Compliance with publishing information on the performance of care of the critically ill in terms of safety, effectiveness, patients’ and carers’ views |
| 22. | Participate in the peer review process and use it to:  
  o Identify and share best practice  
  o Identify areas where care can be | • Completion of peer review process | • Compliance with actions where required e.g. to address immediate and serious concerns as well as general concerns. |
23. Ensure compliance with and auditing of Bundles, guidelines and pathways; develop action plans for non-compliance.

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|   | Participation in regular clinical governance (quality and safety meetings)  
|   | Audit Bundles for compliance.  
|   | Compliance with regular clinical governance (quality and safety meetings).  
|   | Percent patients receiving:  
|   | o Ventilator bundle  
|   | o CVC insertion and maintenance bundles  
|   | o Urinary catheter bundle  
|   | o Sepsis bundle  
|   | o Peripheral cannulae bundle  
|   | o Tracheostomy care bundle  
|   | o Skin bundle  
|   | o Improving general hospital care for patients who have a learning disability |
4. Timely Discharge from Critical Care - The Right Patient receiving the Right Care at the Right Time

Delayed discharges, or DToCs (Delayed Transfers of Care) from critical care are significant and have worsened year on year. In 2015-16, the equivalent of almost 17 years (148,424 critical care bed hours) were lost to NHS Wales with some 4860 (51%) patients waiting more than four hours to be discharged from critical care. These delays are related to hospital flow as a whole.

DToCs not only prevent patients who are critically ill from accessing the treatment they need, but also have a detrimental effect on the rehabilitation of patients whose transfers are delayed. DToCs are also harmful to patient safety as they result in out of hours discharges, cancelled operations and non-clinical transfers, all of which are known to increase morbidity and mortality. DToCs also have a financial implication since a critical care bed is the most costly type of bed in the hospital. The Critical Care and Trauma Network conservatively estimates, using Consolidated Welsh Costing returns 2015-16 for a Level 2 bed, the costs of DToCs, in terms of bed days alone, was at least £9.1m for 2015-16. In addition to this, it has been shown that overall hospital length of stay is longer for patients whose discharge from critical care was delayed.

Welsh Government has set a target for health boards to reduce the number of hours lost to DToC by 10% every quarter until they reach a position of no more than 5% of bed occupancy lost to DToC. Health Boards must therefore prioritise discharges from critical care units to achieve this target. Improving flow through the critical care units will result in reduced numbers of cancelled operations, a decrease in deferred or refused admissions and non-clinical transfers, all of which are costly to the patient in terms of safety and costly to the Health Board in terms of resources.

Post Critical Care Follow Up clinics should be offered; both patients and carers are likely to experience effects on emotional health. Follow Up clinics allow patients and carers the opportunity to give feedback regarding their experience of the care and treatment they received whilst in the unit and to discuss issues in a comfortable environment. Where relevant, information can then used to effect changes in practice and ultimately improve the service given to future patients and carers.

When patients need to be transferred between hospitals, be it for clinical or non-clinical reasons, these also need to be undertaken in timely manner. Designed for Life; Welsh Guidelines for the Transfer of the Critically ill Adult (2016) refer to the three categories of transfer, immediate, urgent and elective. Local Health Board clinicians need to be realistic about the urgency for transfer and the Welsh Ambulance Service Trust, or EMRTS where appropriate, need to provide a service in accordance with the aforementioned guidelines.

<table>
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<th>Performance Framework</th>
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<tr>
<td><strong>Timely Discharge from Critical Care - The Right Patient receiving the Right Care at the Right Time</strong> - Health Boards to:</td>
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<tr>
<td><strong>Key Action</strong></td>
</tr>
<tr>
<td>24. Prioritise critical care discharges and ensure 95% patients are discharged within 4 hours</td>
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7 Wales critical care and trauma network management information
of being ready for discharge and the bed being requested.

<table>
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<th>Action</th>
<th>Measures</th>
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| 25. Monitor and report to Board level quarterly quality and safety committees the percentage of discharges achieved within 4 hours and percentage critical care bed occupancy by patients whose discharge is delayed greater than 4 hours. | • As for key action 24 and also;  
• Audit critical care bed occupancy by patients whose discharge is delayed greater than 4 hours. |
| 26. Develop mechanisms to undertake ongoing assessment of impact of DToCs:  
  o to patients whose discharge is delayed and  
  o to those who are prevented from accessing critical care due to lack of a critical care bed. | • Audit impact of DToCs |
| 27. Offer post Critical Care Follow-Up Clinics to ventilated patients length of stay (>4 days excluding DToC time) or risk (e.g. following anaphylaxis). | • Compliance with Follow-Up clinics |
| 28. Work with the Welsh Ambulance Service Trust to monitor and ensure timely inter-hospital transfers with agreed Standard Operating Procedures. | • Compliance with Designed for Life; Welsh Guidelines for Transfer of the Critically Ill Adult |

- Percentage critical care bed occupancy by patients whose discharge is delayed greater than 4 hours.  
- Audit impact of DToCs  
- Compliance with impact assessment.  
- Percentage patients transferred within requested timeframe.
5. Children and Young People

Critically ill and critically injured children may present in emergency departments, children’s assessment services or become critically ill whilst in in-patient children’s services. Paediatric critical care look after children and young people whose conditions are life-threatening and need constant close monitoring and support from equipment and medication to restore and/or maintain normal body functions. The levels of care for paediatric critical care are (Paediatric Intensive Care Society (PICS) Quality standards for the care of critically ill children):

- Level 1 HDU nurse to patient ratio 0.5:1
- Level 2 ITU nurse to patient ratio 1:1
- Level 3 ITU nurse to patient ratio 1.5:1
- Level 4 ITU nurse to patient ratio 2:1

Children needing high dependency or intensive care should be transferred into the critical care unit by a specialist paediatric transport service. The exception being time critical transfers (where the child needs urgent surgery or neurosurgery) which should be carried out by anaesthetists or the EMRTS. Anaesthetists and/or intensivists are crucial to the resuscitation and stabilisation of critically ill children and may be involved in the provision of ongoing paediatric critical care. Each health board should have robust arrangements in place for children to wait for arrival of the specialised transport service; the best place may be in an adult Critical Care Unit. These services should work closely with the local paediatric critical care unit. Health Boards also need to have plans in place for there being no PICU bed available nationally; defining care (location, staffing etc) for 3 hours, 6 hours, 12 hours, 24 hours, 48+ hours.

Following delivery a baby is defined as a neonate for the first 28 days of their life. Neonates that have not been discharged home following birth are not usually cared for in paediatric critical care. Paediatric critical care services should be available to all critically ill children that have been discharged home after birth until their 16th birthday. Those patients over their 16th birthday should go to adult Critical Care Units. This applies for both patients still under the care of the paediatricians who have not transitioned yet and those who have never been under paediatric services. PICU will occasionally take patients aged 16 to 18 years if adult Critical Care has accepted the patient but is full and does not have capacity.

For North Wales PICU is provided at Alder Hey, Liverpool. There is however only one PICU in Wales, located in Cardiff; because of this Cardiff PICU should put in place a surge plan so it has the ability to double its ICU (ventilated) beds by 100% to cope with surge pressures/demands placed upon it.

A successful outcome for the critically ill child depends upon the quality of care received from the first contact with the health service. There should be a seamless system of care from the onset and diagnosis of the critical illness, to the outcome. Critical care for children must be provided utilising a collaborative approach based upon common standards, pathways and effective communication. It is essential that there is equity of access throughout Wales.

National guidelines set out the Welsh Government’s expectations of effective care. These include the National Institute for Health and Care Excellence (NICE) guidelines, care pathways and professional standards such as the Paediatric Intensive Care Society standards for the care of critically ill children.
The caring responsibility of parents of children with complex needs is over and above those of normal parenting. The needs of carers are likely to vary during their child’s development. Key periods of stress are likely to occur at times of change. Parent carers are likely to spend the longest time caring and the cumulative effects of caring on emotional health must be considered. The likely impact on the whole family and, in particular siblings, should be considered. The assessment process should consider the needs of carers and direct them to appropriate services.

The *Children and Young People’s Continuing Care Guidance* is designed for use by all those planning and providing children’s continuing care services in health boards and local authorities and their partners. It describes the interagency process, led by health boards, that all organisations should implement in assessing needs and putting in place bespoke packages of continuing care for those children and young people who require it because their needs cannot be met by existing universal or specialist services alone.

Poorly planned transition from young people’s to adult-oriented health services can be associated with increased risk of non-adherence to treatment and loss to follow-up, which can have serious consequences. When children and young people who use paediatric services are moving to access adult services these should be organised so that all those involved in the care, treatment and support cooperate with the planning and provision to ensure that the services provided continue to be appropriate to the age and needs of the person who uses services.

<table>
<thead>
<tr>
<th>Performance Framework</th>
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<tbody>
<tr>
<td><strong>Children and Young People - The paediatric critical care unit will work with referring hospitals /Health Boards to:</strong></td>
</tr>
<tr>
<td><strong>Key Action</strong></td>
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</tbody>
</table>
| 29. Ensure there is a robust plan in place for the resuscitation and stabilisation of critically ill children and where necessary the provision of ongoing paediatric critical care whilst awaiting for arrival of the specialised transport service. | **Compliance with resuscitation and stabilisation of critically ill children plan.**  
**PICU able to meet the needs of and accept at least 95% of patients referred to it each month.** | **Number of patients left ventilated for more than 12 hours in a DGH due to a lack of a staffed PICU bed.**  
**Cancelled elective surgical procedures due to lack of PICU bed.**  
**Number of days there is no available internal collapse PICU bed.** |
| 30. Ensure there is a robust plan in place for where capacity issues mean a PICU bed is unavailable for a prolonged period. | **Compliance with plan for prolonged care of critically ill children.** | **Number of patients unable to be accommodated by PICU in Wales (excluding North Wales’ patients).** |
| 31. Ensure that all there are surge plans in place to escalate PICU (ventilated bed) capacity 100% if required. | **Demonstration of 100% increase in PICU (ventilated bed) capacity.** | **Number of patients unable to be accommodated by PICU in Wales (excluding North Wales’ patients).** |

**Additional Actions**
- Ensure there are agreed referral and treatment pathways.
- Communicate effectively with other specialised services as required to ensure high quality care for children with co-morbidities.
- Agree treatment plans with patients and their families.
- Ensure that parents and children have co-ordinated care throughout the entire pathway, and feel supported and informed.
- Provide appropriate counselling and psychological support to patients and their families.
- Provide an individualised palliative care and bereavement service, where appropriate.
- Measure and act upon patient experience and satisfaction and contribute to patient surveys where they exist.
- Ensure patients with complex needs have appropriate, including those with learning disabilities, timely assessment of their continuing care needs (as per children and young people's continuing care guidance).
- Develop and implement integrated and co-ordinated plans for the transfer of care from paediatric to adult services.
6. Research and Development

The development of critical care is heavily dependent on the quality of information available – both up-to-date patient information and the data which provides evidence of outcomes and informs the development of best practice. Information on NHS performance is essential to inform policy, to drive continuous improvement in service delivery and to provide information to the public on the services which matter to them.

Healthcare systems that actively engage in clinical research have better patient outcomes. Effective critical care research requires engaged enthusiastic healthcare professionals, with adequate time, research infrastructure, governance, institutional and academic support. In addition to the association with improved patient outcomes high quality clinical research builds institutional reputation, attracts and retains staff. It also provides access to novel or expensive therapies which might otherwise be unavailable.

Research in critical care across Wales should be co-ordinated and supported through participation in the Health and Care Research Wales portfolio scheme. This should be seen as a means to improve clinical standards as well as increasing the profile and role of critical care in a modern Welsh Health Service. Compared to other specialities, a paucity of commercial studies exists; these should be actively supported if deemed appropriate by healthcare professional in critical care.

<table>
<thead>
<tr>
<th>Performance Framework</th>
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<tbody>
<tr>
<td>Research and Development. Health Boards to:</td>
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<tr>
<td><strong>Key Action</strong></td>
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<tr>
<td>32. Increase the number of high quality clinical studies that are likely to impact on the quality of care delivered to critically ill patients or generate new grant or commercial income which can be used for clinical research</td>
</tr>
<tr>
<td>33. Increase the number of critical care healthcare professional engaged in clinical research</td>
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<tr>
<td>34. Support critical care healthcare professionals conducting clinical research</td>
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<tr>
<td>35. Develop clinical leaders in research and support with academic structures</td>
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<tr>
<td>36. Work with the Health and Care Research Wales Specialty Lead, researchers and the Health and Care Research Wales Support and Delivery Service to increase the number of</td>
</tr>
<tr>
<td>Critical Care Research Studies Undertaken in Wales.</td>
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<tr>
<td>38. Ensure a Critical Care R&amp;D lead is identified and provides visible R&amp;D leadership for the Delivery Plan.</td>
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<tr>
<td>39. Ensure HSCR allocations are spent on research activities only, with prosecution if spent elsewhere by organisations.</td>
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</table>
7. Implementing the delivery plan for the critically ill

In response to this Delivery Plan for the Critically ill, Health Boards are required to identify, monitor and evaluate action required to deliver the Delivery Plan in the health board IMTP (NHS Wales Planning Framework 2017-20). It may be useful however to also have a detailed action plan for the local Delivery Plan which can be regularly monitored at Health board level.

This delivery plan has set out our vision and ambitions for services for those who are critically ill within Wales. Achieving them will involve joint working between all those responsible for the care of the critically ill in Wales.

We have set out the health outcomes we expect for the people of Wales and the Implementation Group, for the critically ill. The Welsh Government will hold the NHS to account to ensure that the actions in this plan and the health outcomes we desire are achieved.

The lines of accountability will be through the Chairs of the health boards and trusts to the Cabinet Secretary for Health, Well-Being and Sport and, with the Chief Executives of the health boards and trusts reporting to the Chief Executive of the NHS Wales, who is also the Director General of the Welsh Government’s Health and Social Services Group.

We are in a strong position to move ahead. We have a national implementation group steering the plan and developing ‘once for Wales solutions’ to support health boards. We have Network Clinical Leads working with the health boards, supported by an all Wales network.

The role of the Critically ill Implementation Group is to oversee the national plan and support health boards to deliver their local plans. The Implementation Group brings together the key stakeholders, including all the health boards, the Welsh Ambulance Service Trust, the third sector, secondary care, government and managers to work collaboratively.

The Implementation Group will review progress against this delivery plan at least once a year. The clinical leads will support delivery of the plan and will work closely with the implementation group.

Health boards are responsible for planning, securing and delivering local services to ensure that those people who require critical care can access the right care at the right time and place. Each health board has a local planning and delivery group. The local groups will need to plan services effectively for their population and build and lead coalitions with Welsh Ambulance Service NHS Trust, other health boards in Wales and England, primary care, local government and the third sector voluntary bodies. Health boards will need to integrate their plans for the care of the critically ill into the overall health boards’ integrated medium term plans.

The Implementation Group will support health boards and their local delivery groups through the provision of strong and joined-up leadership and oversight. They will co-ordinate national priorities and actions in a strategic way.
Health boards are required to monitor their performance against the delivery plan for the critically ill against a set of nationally specified performance measures and report them to implementation group and the Welsh Government annually. The peer review process will also monitor progress against health boards’ plans on a three yearly cycle.

The Welsh Government will continue to maintain oversight of delivery and assurance framework and issue a national statement of achievement annually. It will also support and enable liaison between the Implementation Group and Welsh Ministers.
Annex 1 – Tiers of Critical Care Unit

This service model recognises that all critical care facilities cannot be provided on all hospital sites. Sicker patients will sometimes have to be moved for specialist care. Each Critical Care Unit should be designated as one of the following Tiers; this will determine how it functions within the Health Board and regional Network.

**Tier 1 Unit**
District General Hospitals providing Level 2 care only.

There need to be clear pathways regarding ability to escalate care and the skills to resuscitate, package and transfer all Level 3 patients safely to a higher tier unit.

**Medical staffing**
Consultants: it is recommended that there is a minimum of 7 sessions per week from a Critical Care Trained Consultant\(^8\) for a unit of up to ten beds. The number would need to be increased with higher bed numbers.

The remaining cover may be provided by Medical and Surgical Care with Anaesthetic cover. Staffing need not be dedicated and can attend to other duties in the hospital i.e. cardiac arrest, anaesthesia (e.g. obstetric anaesthesia) or surgery. There does however need to be immediate access to staff with advanced airway training.

If an ACCP tier is put in to replace a junior medical team arrangements would need to be made for advanced airway cover.

Arrangements must be in place for advice to be available from a Critical Care Consultant 24hrs/day, 7 days a week but this need not be on-site.

These may be "open" units but they must supply data through ICNARC case mix programme and other outlined outcome measures. Hospitals with Tier 1 Units only should not have unselected medical/surgical on-call ("take"). Transfers to a higher Tier Unit should be rare.

**Tier 2 Unit**
District General Hospitals looking to provide Level 2 care and short term (<48hrs) Level 3 Care.

This would include all hospitals with acute unselected medical and surgical on-call ("take").

**Medical Staffing**
Consultants: it is recommended that there are 14 sessions per week for up to an 8-10 bedded unit. These Tier 2 Units need 24 hour cover by Anaesthetists with the necessary skills and training to intubate and ventilate patients. Level 2 patients should be reviewed daily by a trained Critical Care Consultant and Level 3 patients twice daily. Arrangements must be in place for advice to be available from a Critical Care Consultant 24hrs/day, 7 days a week if out of hours cover is provided by Anaesthesia.

The middle grade/trainees: There should be a dedicated junior tier of medical staff 24 hours a day for the unit seven days a week without commitments outside of the unit except to acutely critically ill patients. This applies to a unit of up to 8-10 beds; additional staffing is required for larger units.

If an ACCP tier is put in to replace a junior medical team arrangements would need to be made for advanced airway cover.

On call commitments: these units may be covered by anaesthetics out of hours.

Tier 2 units should function as closed units\(^9\).

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\(^8\) "Critical Care Consultant" = Consultant with a Certified Completion of Training in Critical Care, equivalent training, or current working daytime sessional commitment e.g. existing Critical Care Consultants with day time sessional commitment to Critical Care in their job plan, or recognised critical care training (approved by the Faculty of Intensive Care Medicine) from abroad. Consultants must demonstrate continuing professional development to Critical Care in their annual appraisal.

\(^9\) "Closed units" = units where admissions, discharges and care are under the direction of the Critical Care consultant. An open unit may admit patients without critical care involvement.
**Tier 3 and Tier 3T**
Hospitals providing long term Level 3 Care and specialist level 3 Care. Some District General Hospitals, and Teaching Hospitals. Tier 3 Units must be able to provide long term Level 3 care to patients with multiple organ failure.

**Medical Staffing**
Consultants: As with Tier 2 units, all Level 3 patients need review within at least 12 hours of admission by a Critical Care Consultant. In addition Tier 3 units should have a dedicated Critical Care Consultant on-call rota.

The middle grade/trainees: There should be a 24 hour dedicated junior tier of medical staff for the unit without commitments outside of critical care and large units should have a medical team per 8-10 Level 3 patients.

If an ACCP tier is put in to replace a junior medical team arrangements would need to be made for advanced airway cover.

**Tier 3T Units**
These units are as above but also with specialist services for example; Neurocritical Care, Cardiothoracics, Major Trauma Centres, Respiratory Centre recognition and Burns. In view of the complexity of patient care these units may wish to extend to resident consultant Intensivist cover.

Tier 3 and Tier 3T should function as closed units\(^{10}\).

**Medical Staffing**
“No amount of equipment can compensate for the lack of appropriately trained staff”. *Department of Health ‘Comprehensive Critical Care ‘A review of Adult Critical Care Services.’* 2000

Medical staffing has been a challenge and is set to become more of a challenge in terms of numbers of trainees and meeting consultant staff requirements.

Specialist and multi-organ support for Level 3 patients needs specialist critical care input from those with the appropriate recognised training. Cross cover by Anaesthetists is entirely appropriate for the initiation of short term critical care where there is an emphasis on resuscitation and stabilisation; however it is not appropriate for those with prolonged critical care needs. This emphasis on the patient’s requirements needs to be accepted and units need to be staffed by appropriately trained clinicians according to the tier of the unit.

The Strategic Vision acknowledges that those units seeking to resuscitate, stabilise and transfer all Level 2 patients (Tier 1) cannot and need not meet the same staffing requirements of those units seeking to provide prolonged Level 3 care with complex critical care needs (Tier 3).

There are significant factors impinging on how a critical care service is going to be delivered over the short, medium and long term across Wales. These include:
1. A reduction in training hours brought about by the European Working Time Directive (EWTD).
2. A call by the Royal College of Anaesthetists for a reduction in service delivery to critical care. A training commitment in critical care for Anaesthetists remains due to competencies being best met by some competency assessed training in critical care medicine.
3. A deanery recommended increase in the number of trainees per rota from 1:8 to 1:10 (11).
4. The Faculty of Intensive Care Medicine (FICM) has from 2012 dedicated critical care medicine trainees but the numbers are very small.

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\(^{10}\) “Closed units” = units where admissions, discharges and care are under the direction of the Critical Care consultant. An open unit may admit patients without critical care involvement.
In view of the above, alternative staffing utilising Advanced Critical Care Practitioners (ACCPs), Staff Grade and Associate specialists (SAS), and post Completion of Certified Training (CCT) doctors need to be further explored and initial investment made in the medium to long term to create a team to provide the necessary service. ACCP courses exist in Cardiff and Bangor. The costs of a 2 to 3 year training course, back-filling the nursing posts need addressing.

Medical staffing as a whole needs to be jointly addressed by Health Boards, the Welsh Deanery, and the Critical Care professional bodies – Welsh Intensive Care Society (WICS), the Critical Care and Trauma Network and the National Specialist Advisory Group (NSAG) for anaesthesia and critical care.

Table 1. Critical Care Tiers

<table>
<thead>
<tr>
<th>Unit Tier</th>
<th>Level 3 Care</th>
<th>Critical Care Consultant Staffing</th>
<th>Anaesthesia Consultant</th>
<th>Dedicated Critical Care tier</th>
<th>Level of patient care provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>Ability to intubate/ventilate/transfer Level 3 patients</td>
<td>7 session/week</td>
<td>Yes, in emergencies</td>
<td>0</td>
<td>Level 2 only</td>
</tr>
<tr>
<td>Tier 2</td>
<td>Level 3 care &lt;48hrs</td>
<td>14 session weekly commitment by a Critical Care Consultant rota</td>
<td>Overnight out of hours cover acceptable within the 12 hourly review by a Critical Care Consultant</td>
<td>Dedicated</td>
<td>Level 2 and short term level 3</td>
</tr>
<tr>
<td>Tier 3</td>
<td>Prolonged level 3 care</td>
<td>Dedicated Critical Care Consultant rota, &gt; 14 sessions/week</td>
<td>Emergency unpredictable only</td>
<td>Dedicated</td>
<td>Level 2 and prolonged level 3 care</td>
</tr>
<tr>
<td>Tier 3T</td>
<td>Prolonged level 3 care and specialist care</td>
<td>Dedicated Critical Care Consultant rota</td>
<td>Emergency unpredictable only</td>
<td>Dedicated</td>
<td>Level 2, 3 and specialist care</td>
</tr>
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</table>

It is generally accepted that a critical care team, led by a consultant, would be able to care for up to 10 critically ill patients. A unit with more than 10 patients would therefore require more than one team. A team would traditionally comprise a nurse at the bedside, a junior doctor and a consultant as well as Allied Health Professionals. It is likely in future that ACCPs who have undergone competency-based and assessed training will replace scarce junior doctors provided there is still 24 hour resident advanced airway skills on-site to call on. This advanced airway service would usually be provided by anaesthesia except in large Tier 3 and 3T units which may find it advantageous to have resident intensivists. These may be senior critical care trainees or consultant intensivists. A critical care consultant working without a team would be able to safely look after less than 10 patients.

In addition consultant staffing models will need to be flexible taking into account feminisation of the workforce, retirement age, and movement of intensive care consultants out of critical care into other specialities with less onerous out-of-hours commitments during their later working life.

The Medical staffing requirements reflect the minimal level of recommended input.
Annex 2 – Supporting Strategic and Legislative Documents

Since the publication of the first delivery plan there have been a number of strategic and legislative changes that have impacted upon policy and need to be reflected in this refreshed delivery plan.

New Programme for Government and the NHS Plan
The Welsh Government’s Programme for Government and NHS Plan set out an ambitious programme for health and well-being in Wales focussing on improving our healthcare services; our healthcare staff; being healthy and active; our mental health and well-being; the best possible start for children and care for older people.

Achieving Excellence: The Quality Delivery Plan for the NHS in Wales for 2012-16 outlined actions for quality assurance and improvement. A commitment to a quality-driven NHS that provides services which are safe, effective, accessible, and sustainable. This plan is currently being refreshed.

Informed health and care – A digital health and social care strategy for Wales: The Welsh Government has outlined its commitment to providing access to the best possible services to the public by enabling health professionals to access the most up-to-date technology in its digital health strategy published in 2015. This provides the driver for development and innovation in the use of information technology in critical care for the benefit of patients.

Well-being of Future Generations (Wales) Act 2015
The Welsh Government published the Well-being of Future Generations (Wales) Act in April 2015 to improve the social, economic, environmental and cultural well-being of Wales. It aims to make public bodies think more about the long-term, work better with people and communities and each other and look to prevent problems and take a more joined-up approach. The Act sets out seven well-being goals, and five ways of working in order to support the implementation of these goals:

- a prosperous Wales
- a resilient Wales
- a healthier Wales
- a more equal Wales
- a Wales of cohesive communities
- a Wales of vibrant culture and thriving Welsh Language
- a globally responsible Wales

Population Needs Assessment
Population needs assessments are critical to the development of good long-term strategies. The Well-being of Future Generations Act makes it clear that this needs to be done in conjunction with other public service bodies, such as local authorities, education and housing. Population needs assessment should underpin the local well-being plan, developed by public service boards.

Prudent Healthcare
In addition, the plan has also been underpinned by the principles of Prudent Health and Care. The way in which services have been shaped and delivered in recent years provide good evidence of prudent health and care in practice and this delivery plan aims to strengthen that approach through a greater emphasis on prevention, integration and long term sustainability. Placing the needs of service users at the heart of service design, co-
production in care and treatment planning and delivering services by professionals in both the statutory and third sector are good examples of how the prudent health and care principles underpin service delivery.

**Welsh Language**
The objectives of ‘More than just words’ the Welsh Government's strategic framework for Welsh language services in health, social services and social care have also been embedded into the plan through actions that make it clear all organisations associated with service delivery must ensure that such services are available to those who wish to communicate in Welsh.

**Building a Brighter Future**
A coordinated programme to ensure that children have the best possible start in life through early intervention, family support and integrated services, focused on achieving better outcomes and reduced inequality for children.

**Developing a Skilled Workforce**
The workforce is the most critical element of both the NHS and the third sector and is the key determinant to the success of any organisation. An engaged, sustainable and skilled workforce is essential to delivering high standards of care and transforming the way services are delivered in order to meet the many challenges faced by NHS Wales today. Workforce must be planned and developed around the prudent healthcare principles (i.e. how is the profile of your workforce going to change to allow professionals to concentrate on where they can add the greatest value).
Annex 3 – Links to Reference Documents

A framework for delivering integrated health and social care for older people with complex needs

Achieving excellence - The quality delivery plan for the NHS in Wales
http://gov.wales/topics/health/nhswales/plans/excellence/?lang=en

All Wales critical care escalation guidance for the management of large unplanned increases in demand
http://gov.wales/topics/health/nhswales/plans/delivery-plan/background/?lang=en

All-Wales Policy on Do Not Attempt Cardiopulmonary Resuscitation
http://www.wales.nhs.uk/news/35793

Cancer Delivery Plan
http://gov.wales/topics/health/nhswales/plans/cancer/?lang=en

Children and young people’s continuing care guidance

Delivering End of Life Care Plan (refreshed plan to be published February 2017)
http://gov.wales/topics/health/nhswales/plans/end-of-life-care/?lang=en

Delivering Local Integrated Care

Delivery Framework for the Performance Management of NHS R&D

Diabetes Delivery Plan
http://gov.wales/topics/health/nhswales/plans/diabetes/?lang=en

Designed for Life: Guidelines for Transferring the Critically Ill Adult
http://www.wales.nhs.uk/sites3/docmetadata.cfm?orgid=753&id=299607

Embedding of the prudent healthcare principles
http://gov.wales/topics/health/nhswales/prudent-healthcare/?lang=en

FICM Workforce Engagement Report
https://www.ficm.ac.uk/local-engagements/reports

Framework for Assuring Service User Improvement and Core Questions

GPICS
https://www.ficm.ac.uk/sites/default/files/GPICS%20-%20Ed.1%20%282015%29_0.pdf


Health and Care Research Wales Performance Management Framework
Health and Care Research Wales Strategic Plan 2015

Health and care standards (April 2015)

Heart Conditions Delivery Plan
http://gov.wales/topics/health/nhswnlates/plans/heart_plan/?lang=en

Help is at hand

Improving general hospital care of patients who have a learning disability

Industry Engagement in Wales
http://www.healthandcareresearch.gov.wales/industry-engagement/

Informed health and care – A digital health and social care strategy for Wales
http://gov.wales/topics/health/nhswnlates/about/e-health/?lang=en

Lasting Power of Attorney

Liver Disease Delivery Plan
http://gov.wales/topics/health/nhswnlates/plans/liver-disease/?lang=en

More than just words…. Follow-on strategic framework for Welsh language services in health, social services and social care
http://gov.wales/topics/health/publications/health/guidance/words/?lang=en

National Confidential Enquiry into Patient Outcome and Death: Adding Insult to Injury, published (2009)

National Confidential Enquiry into Patient Outcome and Death: On the right trach (2014)
http://www.ncepod.org.uk/2014tc.html

National Confidential Enquiry into Patient Outcome and Death: Peri-operative care: knowing the risk (2011)

Neurological Conditions Delivery Plan (to be refreshed during 2017)
http://gov.wales/topics/health/nhswnlates/plans/neurological/?lang=en

NHS Wales Planning Framework
http://gov.wales/topics/health/nhswnlates/organisations/planning/

NHS Wales Workforce Review

NICE Guidelines on Acutely Ill Patients in Hospital (CG50)
https://www.nice.org.uk/guidance/cg50
NICE Guidelines on Care of dying adults in the last days of life (NG31)
https://www.nice.org.uk/guidance/ng31/

NICE Guidelines on Rehabilitation after critical illness in adults (CG83)
https://www.nice.org.uk/guidance/cg83

NICE Guidelines on Transition from children’s to adults’ services for young people using health or social care services (NG43)
https://www.nice.org.uk/guidance/ng43

Organ Donation Action Plan
http://gov.wales/topics/health/nhswales/organ/transplantation/?lang=en

Patient Consent

Peer review (awaiting publication)

PICU standards
http://picsociety.uk/about-pics/pics-standards/

Primary Care Services Plan
http://gov.wales/topics/health/nhswales/plans/care/?lang=en

Programme for Government
http://gov.wales/about/programme-for-government/?lang=en

Public Health Outcomes Framework

Rare Disease Implementation Plan (to be refreshed during 2017)
http://gov.wales/topics/health/nhswales/plans/rare/?lang=en

Respiratory Conditions Delivery Plan (to be refreshed during 2017)
http://gov.wales/topics/health/nhswales/plans/respiratory/?lang=en

Royal College of Paediatrics and Child Health: High Dependency Care for Children – Time to Move on (2014)
http://www.rcpch.ac.uk/sites/default/files/page/HDC%20for%20web.pdf

Safe Care, Compassionate Care: National Governance Framework to enable high quality care in NHS Wales

PLOS One 2016
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0167230

Securing Health & Well-being for Future Generations- February 2016

Self care and care plans
http://gov.wales/topics/health/nhswales/healthservice/chronic-conditions/?lang=en
Social Services and Well-being (Wales) Act 2014

Stroke Delivery Plan (refreshed plan to be published February 2017)
http://wales.gov.uk/topics/health/publications/health/reports/plan/?lang=en

Well-being of Future Generations (Wales) Act 2015

http://www.1000livesplus.wales.nhs.uk/critical-care