SWANSEA BAY UHB
Acute Medical Services Redesign (AMSR) Programme

PART 1 – PROJECT ASSURANCE SUMMARY

A. KEY PROJECT INFORMATION

Name of Project	UEC Acute Medical Services Redesign
PMO Reference No	
Project Lead	Dr Robert Royce
Delivery Unit/Corporate Department	Morriston Service Group
Name of Programme Board	AMSR Board
Name of Programme Board Chair	Kate Hannam (SRO); Mark Ramsey (Clinical Lead); Inese Robotham (Executive Sponsor)
Date of Programme Board Approval	Click or tap to enter a date.

B. BUSINESS CASE SCRUTINY

Date Case Received for Scrutiny	Click or tap to enter a date.
Is the case included within the Health Board's Annual Plan?	YES.
Has funding been identified (Revenue & Capital)?	YES (FUNDING ENVELOPE IN CASE)
If the case requires the sign-up of other parties, has this been provided?	CHC HAVE APPROVED SERVICE CHANGE
Does the case contain a realistic benefits realisation plan?	YES
Does the case contain a realistic workforce plan?	YES
Has the case received financial clearance?	YES
Date Case Released from Scrutiny	23/05/2022

C. BUSINESS CASE APPROVAL DECISION

Date of Approval	23/05/2022
Business Case Assurance Group Decision	Choose an item.

Aligned to:

Annual Plan 21-22 Programmes of Work *(select one)*	
☐	Cancer
☐	COVID-19 response, including vaccination and testing
☐	Maternity, Children, and Young People
☐	Mental Health and Learning Disabilities
☐	Planned Care,
☐	Quality and Safety
☒	Urgent and Emergency Care,
☐	Workforce

Please restate the agreed GMOs		
GOALS **(what are we trying to do)**	**METHOD** **(how are we going to do it)**	**OUTCOME** **(what will it deliver)**
Improved Management of Acute Medical Patients – relieve pressure on the Emergency Department	Centralise acute medical admissions at Morriston Hospital by the creation of a dedicated Acute Medical Hub with expanded SDEC services to support admission avoidance and alternatives to admission. Extended services to provide 7-day clinical model and ensure patients receive care at the right time, at the right place by the right clinician with no delays. Investment in out-of-hospital services to provide alternatives to admission and reduce delay in discharge.	Improved performance against Emergency Department targets. Improved bed occupancy. Reduced number of beds supporting medical patients by: a) Reduced length of stay acute medical patients b) Increased number of avoided admissions c) Reduced number of clinically optimised patients d) Reduced risk to cancellation of elective/tertiary services and DTOCs from ICU

1.0 Strategic Case for Change

The Acute Medical Services Redesign (AMSR) Programme is a key foundation of the Health Board's "Changing for the Future" plans, particularly focusing on the evolution of Morriston, Singleton and Neath Port Talbot hospitals to become individual "centres of excellence".

"Changing for the Future" provided a strategic direction to support recovery from the pandemic and also sought to resolve several long-standing issues that existed before Covid 19. These include:

- Significant local health inequalities;
- A numerically larger and ageing population with consequential impacts on health and social care resources;
- Health problems arising from poor lifestyle choices (smoking, alcohol etc);

- The prevalence of long-term illness;
- Difficulties in recruiting health and care staff;
- Inefficiencies and sustainability challenges though the provision of similar services across multiple sites;
- The predicted increasing deficit in bed capacity to address demographic changes;
- Financial challenges.

The decision to create "centres of excellence" at each of the Health board's hospital sites, supports the required shift from the current general makeup of the hospitals with duplicated services, to a future model of concentrating skills, resources and specialisms on individual sites thereby enabling a higher standard of care than is currently being delivered while also addressing the challenges outlined above.

As a consequence of "Changing for the Future", the decision was made for:

- Morriston Hospital to become the "centre of excellence" for urgent and emergency care, specialist care and regional services for Swansea Bay, including complex medical interventions.
- Singleton and Neath Port Talbot to become "centres of excellence" for planned care services and rehabilitation services.

This paper addresses the centralisation of acute medical services at Morriston site and the centralisation of rehabilitation services at Neath Port Talbot (NPT) site.

2.0 Background to the Current Service Model

Currently, Swansea Bay University Health Board provides the acute medical intake for its catchment population across two hospitals, Singleton Hospital and Morriston Hospital. The former receives the majority of GP referrals with acute medical problems whereas the latter receives patients who are referred from the ambulance service or self-present to the Emergency Department. Patients with chest pain or suspected stroke are referred to Morriston Hospital as it houses specialist cardiac facilities and the stroke unit.

Currently, there are two 'on-take' rotas providing medical 24/7 medical cover for both sites. 55 consultant and SAS doctors provide the medical cover to these services supported by approximately 110 junior and middle grade doctors. In addition to providing the medical intake on both sites, they also undertake ward rounds across 14 in-patient medical wards, provide in-reach medical support to patients on non-medical wards and the Emergency Department as well as conducting out-patient clinics and undertaking diagnostic and therapeutic procedures such as endoscopy.

The current service models do not provide consistent ward provision nor do they provide services which support patients across 7 days. Historical funding decisions also means that not all clinical support services are available 52 weeks of the year – for example within therapy and pharmacy services.

Table 1: Overview of current medical services at Morriston and Singleton Hospital

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Service	Morriston	Singleton/NPT
Front door emergency services	Emergency Department (ED)	Minor Injuries Unit (MIU) at NPT
General Medical Assessment /Admission Unit	Ward D is identified as the Medical Assessment Unit at Morriston: due to capacity constraints this does not currently operate in this way and patients are currently managed within the ED footprint with ambulatory emergency care delivered within the acute hub currently based in Tawe Ward.	Singleton Assessment Unit (SAU) –19 beds: front door to Singleton hospital providing an assessment and short stay facility for patients referred into the Unit and currently receive all primary care admissions for the health board who have been reviewed by the Acute Care GP Team and also treat and transfer and downgraded 999s
Frailty Assessment Unit/short stay unit	Rapid assessment Unit (RAU) provides dedicated 17 bed facility to support frailty assessment and short stay unit Older People's Assessment Service (OPAS) provides in-reach into ED and direct referrals from the Welsh Ambulance Service Trust (WAST) and the community to support same day comprehensive geriatric assessment (Mon - Fri)	The Integrated Care of Older People (ICOP) team provides dedicated frailty assessment and support to patients presenting within SAU (Mon – Fri)
Ambulatory Emergency Care/Same Day Emergency Care	Delivered primarily by acute GPs based within the acute hub in Tawe Ward. Consultant delivered ambulatory care is also delivered within this area but is not consistent due to staffing and funding issues	Delivered within SAU by acute physicians
Admission avoidance an Urgent Primary Care	Delivered primarily by acute GPs based within the acute hub and includes: review of the WAST stack of patients awaiting conveyancing, GP advice line; Contact 1st, Urgent Primary Care; GP out of hours (OOH)	
Medical Day Unit		Dedicated medical day unit providing acute medical interventions which avoid the need for admission
Specialist wards	There are 227 medical beds at Morriston currently covering: renal; care of the elderly; respiratory; diabetes; infectious diseases; neurology; stroke; gastroenterology	There are 158 medical beds at Singleton covering; haematology; oncology; cardiology; care of the elderly; respiratory; diabetes; stroke; gastroenterology
Rehabilitation		Singleton Hospital Ward 4 provides stroke and orthopaedic rehabilitation services NPT Hospital Ward C provides stroke and orthopaedic rehabilitation services Neuro rehabilitation is provided is a dedicated unit at NPT Hospital.

Medical services across both sites currently operate in excess of 100% of their resourced capacity. The impact of this is inefficiency in service delivery as is evidenced through the current length of stay (LOS) of medical patients on both sites and through poor patient and staff experience and poor delivery against access targets as evidenced through:

- Patients boarding in ED and ambulances due to the inability to access specialist beds at Morriston (an average of 30 patients per day in ED and 5 patients in ambulances);

- Excess bed occupancy – including boarding in the ward areas which can pose a fire and safety risk through the need to place additional beds in front of the fire doors and also day rooms;
- Patients being cared for outside of the medical bed base and the delay in accessing timely decision makers and receiving appropriate rehabilitation and recovery services;
- Inability to support timely offloads of ambulances and the unintended impact this has on the ability to respond to community requests;
- Evidenced opportunities for admission avoidance;
- Patients deconditioning as a result of the inability to discharge to complex discharge pathways in a timely way;
- Reduction in capacity available to treat 'sick' patients through increasing lengths of stay, especially within patients who require on-going support in discharge;
- Failure to deliver access and ambulance handover targets;
- Inability to meet the commitments as a tertiary/specialist centre due the inability to access these beds due to medical patients occupying these beds;
- Inability to deliver the planned care recovery due to the inability to increase the surgical 'green' capacity due to medical patients occupying these beds;
- Challenges in recruiting and retaining staff due to the current medical configurations across the health board with competition for resources.

Therefore, there are a number of local drivers to change the current model and provision of services for acute medicine at Swansea bay to address the issues outlined above.

In addition to this, the national framework for Urgent and Emergency Care as outlined in the Welsh Government's Six Goals for Urgent and Emergency Care, in addition to the Welsh Access Model-ED Quality and Delivery Framework and recommendations from RCOP and RCEM also require the health board to respond to the requirements to change the delivery model to improve responsiveness and effectiveness of acute medical services.

3.0 The AMSR programme – Centralisation of acute medical services onto the Morriston site

The AMSR programme aims to address the current issues outlined above through not only concentrating resources onto one site, but through the opportunity also to design a new model for managing patients seeking to access acute medical services based on providing rapid assessment supported by early diagnostic investigations (as appropriate). This allows earlier treatment to be provided and allow people to return to their normal place of residence without the need to be admitted to hospital.

3.1 Principles of the AMSR Programme

The principles in consideration of the design of the new model were:

1. **Admission avoidance** – to build upon existing services and pathways to support patients to be managed in alternative setting rather than attendance at Morriston hospital (through for example: advice and guidance; review of the WAST stack with redirection to community pathways including virtual ward, Acute Clinical Team (ACT) and "home first" services)
2. **Reducing the pressure on the Emergency Department** by moving cases that can be treated elsewhere out of ED at the earliest opportunity /avoiding coming to ED in the first place.

3. To develop the **Same Day Emergency Care Services** including extending the hours of operation and supporting more ambulatory conditions being managed directly through these pathways to prevent an in-patient admission.
4. To **establish an Acute Medical Unit (AMU)** for all of the medical take which would provide a dedicated facility with senior clinical decision makers who can assess and manage all acute medical patients presenting at Morriston with an aim of minimising the length of stay within the hospital and support only those who need more specialist care to be accessing specialist ward based team. AMUs are distinctly different to that of general wards in NHS hospitals and are configured with operational policies to provide an optimal environment for high quality medical and nursing assessment, with decision-making and care provided 24 hours a day, 7 days a week. The establishment of a modern AMU in the current Enfys ward at Morriston Hospital is a central component of the proposed service changes in Swansea Bay UHB.
5. To **design services which are delivered across 7 days** and therefore increase the number of patients discharged at the weekend and support the reduction in the length of stay of patients through removing delays to access to decision makers and access to other support services.
6. To establish an **integrated workforce together with a new clinical and management structure** for medicine across the three hospitals to drive the changes.
7. Patients who are no longer requiring acute care services at Morriston are **discharged to the most appropriate service without delay.**
8. **To ensure the service improves patient experience, outcomes and safety.**

3.2 The Patient Population

The patient population presenting to acute internal medicine (AIM) which the programme seeks to respond to, is complex with patients frequently presenting with multiple co-morbidities and complex support requirements across nursing, therapies and social care. Complexity is increased also due to

- patients presenting with non-specific symptoms or signs as opposed to a clear diagnosis;
- the level of acuity or disease severity varying significantly between acute medical patients;
- an increasing number of patients being frail and/or older. Frequently, older patients do not describe symptoms but present with a frailty syndrome such as falling or confusion;
- lifestyle-related illnesses increasing, especially alcohol-related disease;
- patients nearing the end of their life being referred to AIM;
- AIM is the default specialty for patients who need admission but are deemed unsuitable by another specialty, e.g. patients with abdominal pain deemed to have a non-surgical cause.

Taking all these factors into account, AIM and acute medical units (AMUs) need to provide a wide range of services to a diverse patient population with the requirement for AIM physicians to treat patients on the basis of their physical, psychological and social needs.

Getting things right at the start of a patient's hospital stay will help to ensure quality and safety, as well as improving efficiency through safe early discharge and reduced readmissions.

Consequently, in designing this service, the need to enhance nursing, therapies, pharmacy and social care support both in the initial assessment phase and in the community has been recognised.

3.3 Seven day Services

There are four main drivers for 7-day services:

1) reducing mortality,
2) increasing hospital efficiency,
3) providing easier access to NHS services, and
4) ensuring patients receive the same standard of care regardless of the day of the week.

AIM physicians may be involved in either general medical services and specialty-specific services, or both. The 2016–17 census demonstrated that 76% of all consultant physicians undertake regular contracted work in the evenings and/or weekends. A survey in 2017 showed that 72% of those working regularly out of hours felt that a full 7-day service would be ideal for their specialty, given enough resource.

3.4 Features of the AMSR programme

The AMSR programme provides more focus to the presentation of each patient to the hospital. There will be a single medical intake for the population of Swansea that will be based at Morriston Hospital. Patients who require urgent or emergency resuscitation will continue to be taken to the Emergency Department, and those having a heart attack will continue to be received directly by the primary angioplasty and stroke services. All other patients who have an acute medical problem that needs hospital assessment will be seen in a single, purpose built unit located close to the main entrance of the hospital – an acute medical unit (AMU) supporting the delivery of acute internal medicine (AIM) and offering a single portal of access for all acute internal medical problems that require hospital assessment.

The key design features of Acute Internal Medicine (AIM) considered are:

- clinical service delivered by consultant physicians for at least 12 hours per day;
- clinical service delivered by consultant physicians 7 days per week;
- service designed and managed by consultant acute physicians specialising in AIM;
- service delivered by a specialist and dedicated multidisciplinary team within a dedicated AMU;
- service design informed by quality standards;
- managing patients for up to 48 hours after presentation;
- performance benchmarked against key clinical quality indicators for AMU;
- access to rapid assessment and diagnostics;
- providing joined-up health and social care to facilitate early, safe discharge when appropriate;
- signposting healthcare providers and patients to a more appropriate and alternative service when required, for example a rapid access chest pain clinic or “first fit” clinic.

Patients requiring admission exceeding 48 hours or requiring specialist support will be transferred to a ‘downstream’ specialist ward, where increased medical and other support services will be provided 7 days a week.

The AMSR, has been developed with the following provisos:

- That the numbers of patients being referred to hospital does not change significantly with the implementation of the new model.
- That a full multi-disciplinary workforce can be provided for the acute care hub.
- That the assessment facilities will be fully open 8am to 8pm, 7 days a week.
- That the maximum length of stay in the short stay unit within the AMU will be 48 hours.

- That as soon as a patient is “clinically optimised” and no longer require acute medical care, they are transferred to a more suitable setting for discharge planning or further rehabilitation.
- That the patients who are currently “clinically optimised” are no longer managed at Morriston Hospital.
- The medical ward base will be limited to 10 wards (including ward C, medicine/cardiology).
- That there will be no change to the junior and middle grade medical staff support to the clinical haematology and oncology wards at Singleton Hospital.
- That there will be a separate medical rota based at Singleton Hospital that will provide 24/7 cover for the temporary wards (that will be mostly non-medical after the introduction of a single medical intake).
- That there will be strong clinical and operational leadership.
- The multidisciplinary team will work flexibly, cohesively and facilitate early discharges interspersed with regular board rounds and huddles where patients are discussed briefly to check that their discharge care plan is on track.
- It is recognised that there will need to be a short transition period from the onset of a single medical intake as there will still be patients based at Singleton Hospital who will need to be managed under the current arrangements until they have been clinically optimised or discharged.

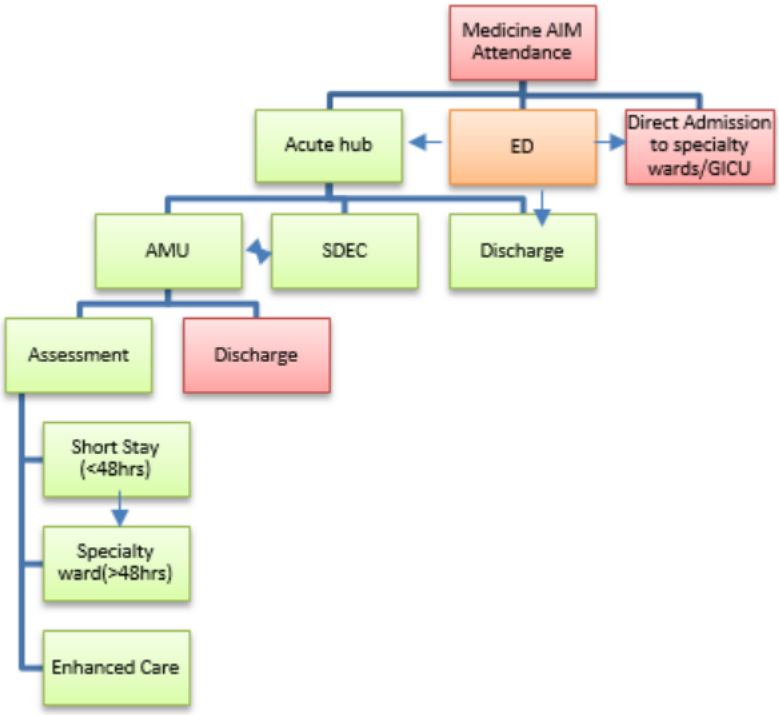
In reviewing the above principles and expected benefits post centralisation of the acute medical services, the following changes to the current service therefore incorporate:

- Transferring the medical in-take at Singleton to Morriston and closing down 4 medical wards at Singleton Hospital.
- The opening of a new Acute Medical Hub (incorporating an AMU and SDEC facilities) at Morriston Hospital.
- The closure of the stroke and ortho-geriatric inpatient rehabilitation services at Singleton Hospital with the service being delivered from within the established bed pool at NPT Hospital.
- The reconfiguration of medical wards at Morriston Hospital.
- The development of an integrated workforce plan reflecting the requirement to deliver 7 day responsive services matched to demand.
- The need to retain a medical workforce at Singleton Hospital to support haematology and oncology services.
- The need to retain 60 beds at Singleton Hospital as part of a contingency plan with a staffing complement that reflects the admission criteria of clinically optimised patients transferred from Morriston Hospital.
- The development of responsive primary and community services to maximise the opportunity for admission avoidance and to support timely discharge from the three hospital sites.

4.0 Proposed Acute Medical Model at Morriston Hospital post centralisation

Following the centralisation of services at Morriston Hospital, it is proposed to establish a dedicated acute medical hub located at the front of the hospital (formerly Enfys) to support the assessment and management of short stay AIM referrals, in addition to reconfiguration of 9 medical wards (plus Ward C).

Diagram 1: Proposed flow of patients following presentation with a medical condition



The current average flow of patients through Morriston is shown in Table 2:

Table 2: Current flow of patients presenting to Morriston hospital

MORRISTON ED					
ED attendances 237	21% ambulance	61% seen in 4 hrs 86% seen in 12 hrs	Median time in dept 3hr 59 mins	74% discharged home	61 patients admitted – ALL specialties 30 to ED (including transfers in)

- In addition to the admissions from ED at Morriston Hospital, the number of admissions into Singleton Hospital and also those from SDEC services increases the anticipated admissions for medicine to a range of 50-80 per day (highlighting the variability in admissions). In terms of the modelling for the AMU, 80 admissions per day have been assumed (before any changes to services which may reduce this figure).
- Currently 45% of medical admissions are managed within 48hrs and of this, 23% are discharged the same day. This has been used to inform the modelling of the capacity required to support patients in the acute hub and also downstream wards.

4.1 Acute Medical Hub

The Acute Hub is dedicated to providing safe, high quality acute medical care for patients that have presented with medical emergencies to the Morriston Hospital in Swansea Bay Health Board. The unit will be operated according to the principles set out in the Acute Medicine Taskforce Report (RCP, 2007).

The acute hub focuses its care on the care of the acutely unwell medical patient, the ambulatory emergency care patient and the short stay patient i.e. anticipated length of stay of less than 48 hours. It supports the ongoing management of high acuity patients providing enhanced care requiring up to Level 2 monitoring and nursing care.

The Acute Hub operates 24/7 and is staffed by a multidisciplinary clinical team focused on acute medical care with the objective of providing early expert assessment and treatment of acute medical illnesses.

4.1.1 Definitions

- **Acute Medicine**
  Acute Medicine is that part of general (internal) medicine concerned with the immediate and early specialist management of adult patients suffering from a wide range of medical conditions who present to, or from within, hospitals who require urgent or emergency care.

- **Acute Hub**
  The Acute Hub is a dedicated facility which comprises of the Same Day Emergency Care Services and Acute Medical Unit.

- **Same Day Emergency Care**
  The Same Day Emergency Care (SDEC) Units provide same day emergency care for patients who are being considered for emergency admission and involve the investigation, care and treatment of patients on the same day who would otherwise have been admitted to hospital for one night or more and are provided across the primary/secondary care interface.

- **Acute Medical Unit**
  The Acute Medical Unit (AMU) is a dedicated facility within the Acute Hub that acts as the focus for acute medical care for patients that have presented as medical emergencies to hospitals or who have developed an acute medical illness while in hospital.

- **Medical Patients**
  Patients accepted by the Acute Medicine Service for assessment and/ or admission. This includes specialty patients from the following specialties via the Emergency Department at Morriston

  - Respiratory Medicine
  - Elderly Care
  - Dermatology
  - Oncology
  - Rheumatology
  - Gastroenterology
  - Diabetes & Endocrinology
  - Cardiology
  - Haematology
  -

4.1.2 SDEC

The SDEC Unit will provide same day emergency care for patients who are being considered for emergency admission. It will involve the investigation, care and treatment of patients on the same day who would otherwise have been admitted to hospital for one night or more and will be provided across the primary/secondary care interface.

The Unit will be staffed by a multi-disciplinary team who will provide:

- Urgent primary care services;
- Ambulatory care services including access to specialty 'hot clinics';
- Comprehensive geriatric assessments;
- Admission avoidance activity including the review of the ambulance stack;
- Advice line for GPs;
- "Contact 1st" will also operate from the unit.

Patients will be referred into SDEC direct from GPs and the Acute Medical Unit and through agreed pathways from WAST; Emergency Department and community services. On arrival, patients will be navigated to the most appropriate clinician following initial triage at the unit and will be managed through the same day pathway. On average, 85% of patients will be discharged from the Unit on the same day of admission.

The SDEC Units are located in the Acute Hub (formerly Enfys) and the OPAS Hub outside of ED. The configuration of these areas supports:

- OPAS Hub – 4 beds and 3 chairs
- Acute Hub – 9 consulting rooms, 11 capacities ambulatory unit, 3 bed triage area, reception and waiting area, quiet room, office accommodation

SDEC will operate 8am-8pm weekdays and will have weekend operating of the 11 bed ambulatory area with additional support provided by the AMU Assessment and Short Stay team, as required and out of hours.

4.1.3 The AMU Configuration

The Acute Medical Unit (AMU) is a dedicated facility within the Acute Medical hub that acts as the focus for acute medical care for patients that have presented as medical emergencies to hospitals or who have developed an acute medical illness while in hospital.

The acute medical take will be managed and delivered in the Acute Medical Unit (AMU). The acute medical take will operate 24 hours per day, 7 days per week.

The proposed length of stay on the unit will be dictated by individual clinical need but is expected to not exceed 2 days in any part of the unit. Patients who are nearing or exceeding their length of stay should be escalated and transfer facilitated to the appropriate specialist ward.

The configuration of the AMU is as follows:

	AMU Triage Assessment	**AMU Enhanced Care**	**AMU Short Stay**
Location	Acute Hub	Acute Hub	Acute Hub
Bed Base	10-15 assessment trolleys	6 enhanced care beds	24-28 short stay beds (includes 4 isolation cubicles)

Target length of stay	3 hours	< 48 hours	< 48 hours
Opening hours	24 hours per day 7 days per week	24 hours per day 7 days per week	24 hours per day 7 days per week
Total throughput capacity/ 24 hours	50-80 patients	3	15

4.1.4 AMU Triage/Assessment

The AMU Triage/Assessment unit has dedicated 6 trolleys to support primary triage assessment with flexibility up to 15 trolleys depending on demand. The assessment unit receives all patients referred into medicine and will navigate to the most appropriate services to ensure timely access to diagnosis and assessment.

The following principles apply to the AMU in the design of the clinical model.

- Patient safety is the overriding principle in all cases.
- All physicians who contribute to the GIM rota will work and lead the assessment and management of acute medical problems on the Unit.
- The place for the assessment and management of the majority of acute medical patients will be the Acute Medical Unit managed by the Acute Medicine Service.
- High acuity patients referred by Emergency Medicine will be assessed and stabilized in the Emergency Department prior to transfer onto AMU. It is recognized that ongoing assessment and management will continue in the ED while appropriate.
- Appropriate patients to be streamed into SDEC either from AGPU (GP telephone referrals) or from Primary Assessment on AMU Assessment.
- Acute Medicine will handle all medical specialties and do sub specialty triage (other than STEMI and FAST positive patients).
- Acute Medicine will work closely with other medical and non-medical specialties to ensure early specialist intervention where appropriate and rapid transition of care through the Acute Medical Unit for patients requiring admission into specialist areas.

4.1.5 Short Stay Unit and Enhanced Care Unit

The purpose of the short stay unit is to provide focused care for patients requiring only a short inpatient stay. Patients receive regular clinical review by a senior clinical decision maker and rapid access to key investigations. The unit will be divided into 2 sides – Side A will focus on frailty and Side B will focus on GIM. Therapy assessment will be on an as required basis.

Short Stay Unit objectives:

- Promote early and safe discharges;
- Reduce delays in patient care;

- Improve flow for Acute Medicine patients;
- Maintain & increase capacity in AMU Assessment for admissions;
- Reduce length of stay of acute conditions that do not need specialty input

The Enhanced Care Unit is a 6 bed unit which is staffed to support the safe and effective care of patients who are level 4 or 5 as a result of acute illness and require higher levels of nursing and medical care.

4.1.6 The Acute Hub Workforce

The effective delivery of the acute hub is reliant on a highly skilled workforce operating as an integrated multi-disciplinary team with a strong ethos to support patients being managed out of hospital and where an admission is required, that they are rapidly assessed and reviewed with treatment plans which support a safe quick discharge.

Table 3 below provides an indication of the total workforce who will be required to support the effective management of the Unit.

Table 3: The Acute Medical Unit Workforce

Team	Overview
Medical Workforce	The medical workforce will be provided primarily by the General Internal Medicine (GIM) clinical team who currently have sessions allocated within their job plan to support the GIM rota and acute physician rota. There will be 2 clinical "sub-teams" work within the AMU o AMU Assessment Team o AMU Short Stay Team Out of hours medical cover will be provided by the GIM on-call physician Additional specialist medical support will be provided by the medical and non-medical specialty teams to provide expert clinical advice, support discharge decision making in complex specialty patients, and identifying specialty patients for transfer New rotas will provide acute medicine cover to the acute medical hub: • 8am-10pm, 7 days a week – consultants with their junior and middle grade tiers on site within the acute medical hub (covering new referrals) and 8am-5pm for the short stay unit). • 10pm-8am weekdays - on call arrangements will take over with resident cover by tier 2 (SpR level) and Tier 1(Foundation/SHO level.
Nursing Workforce	The nursing workforce will be provided by the Acute Medicine Service and will be staffed from current assessments areas operating across Singleton and Morriston Hospitals (SAU, RAU and Ward D). There will be 3 nursing 'sub-teams' work within the AMU for nursing: o AMU Assessment Team o AMU Short Stay Team o AMU Enhanced Care Additional specialist nursing support may be provided by the medical specialist teams to support expert patient care, patient transfer into specialty beds, and expediting specialist interfaces.
Housekeeper Team	The housekeeping team provide meal provision and general domestic cleaning to the wards to ensure infection, protection and control measures are adhered to.

Frailty Team (peviously ICOP/RAU)	The frailty team operates 7 days a week in the AMU. It consists of consultant geriatricians, advanced nurse practitioners, Occupational Therapists (OTs), physiotherapists, and social workers. The team has developed strong links with the community services. Frail and complex patients will have a comprehensive assessment addressing their initial medical problem and also chronic conditions, rehabilitation, psychological and social needs. Specific conditions such as confusion, dementia, falls and continence problems are addressed, aiming to improve quality of life with patient centered and timely discharge planning.
Pharmacy	There is a team of pharmacists, technicians and assistants that provide medicines management services to the ward, including supply of stock and non-stock medication, process of patients own drugs, review of drug charts and ensuring medicines reconciliation on admission. This service is provided each week day. During the weekend cover will be mainly provided in the mornings by the dispensary based team with a limited ward presencereviewing drug charts and orders non stock items. In addition there is an out of hour's service providing pharmacy access and advice
Therapy	There is a team of therapists that provide therapy assessments and direct care across the 'front door' of Morriston Hospital. The team provides Monday to Friday services and extended support at the weekend.
Operations	The operations team supports the AMU by allocating inpatient medical beds as required for patients requiring ongoing clinical care for a length of stay expected to exceed 48 hours or for those patients requiring other medical specialty inpatient care.
A&C	The administration, ward clerk and receptionist team provide support to clinical personnel and act as ambassadors to the Unit. They update patient lists and any other necessary data into the computer system in a timely manner alongside filing any relevant paperwork. Outpatient referrals are completed within 24 hours. There will be 24/7 reception cover available to support the AMU.
Porters	Porters are essential to ensure the smooth running of an AMU. Cover is provided 24 hours a day. Porters play a major role in the transportation of patients to other areas. The Porters are accessed via a bleep.

4.1.6 The SDEC workforce

An integrated team of primary and secondary care medical teams in conjunction with therapy, pharmacy, nursing and physician associates will work within the SDEC units to provide same day ambulatory and primary care services.

4.2 Specialist Acute Medical Wards

In addition to the AMU, there will be 267 medical beds resourced to support patients who require access to the specialist services provided in these environments, or who have a predicted length of stay at assessment greater than 48 hours.

The proposed configuration of the wards is detailed in Table 4:

Table 4: Specialist Ward Configuration

Name	Beds	Area of Focus	Delivered by
Cardigan	24	Renal	Renal
Gowers	30	GIM/Gastro/Neurolgy	Gastroenterology/Neurology
Rapid assessment Unit	17	COTE	COTE
Ward C	15	Secondary Cardiology	Secondary Cardiology
Ward D	25	COTE	COTE
Ward F	24	Stroke	Stroke
Ward G	25	Gastroenterology	Gastroenterology
Ward J	29	Respiratory	Respiratory
Ward R	27	Respiratory	Respiratory
Ward S	26	ID/Diabetes & Endocrine	ID/Diabetes & Endo
Dyfed	10		
TAWE	15		
TOTAL	**267**		

As will be evident from the demand and capacity modelling in section 5, medicine across both sites currently operates outside of its 2021/22 core bed base of 227 with an average of 268 beds used to support medical patients on other wards at Morriston Hospital, with the addition of an average of 30 patients who are boarding in ED.

For the purpose of the AMSR programme, an additional 40 beds is intended to be assigned to medicine with the additional resource required to support this (Ward C 15 beds; Dyfed and TAWE) addressing the issues outlined in section 2 with regards to the unintended consequence 'outlying' medical patients in other areas has in terms of access, patient and staff experience and quality of care.

Efficiencies arising from the U&E care improvement programme are expected to deliver improvements in length of stay and admissions to further address the patients who currently are waiting admission to specialist wards and in additional surge capacity at Singleton.

4.2.1 Specialist Wards – Workforce

The proposed model is based on 7-day working with consultant led daily board rounds 7- days per week across the 11.5 medical wards with increased support from middle and junior doctors. Additional input from therapy, pharmacy and ward clerks is planned to support increase discharges at the weekend and support a culture of 'no delays'.

4.3 Singleton and NPT

Currently stroke and orthopaedic rehabilitation pathways for the health board are split across ward C NPTH and ward 4 Singleton. The proposal is to relocate rehabilitation services to NPTH to align as the Centre of Excellence. It is also proposed that the stroke and orthopaedic rehabilitation pathways are split and managed on separate wards to accommodate bed number requirements, clearly define the ward speciality and align respective therapy teams to the speciality ward.

As part of the mitigation plan, 90 beds will remain to support the transition to the new model in year 1. It is expected that these wards will operate as sub-acute wards and will manage patients from

Morriston Hospital who have completed their acute phase but require additional support before discharge. The workforce to support these beds has been incorporated into the overall nursing and therapy workforce submissions and medical cover will be provided by the SHO/Reg who are deployed at Singleton Hospital and through 2 weekly sessions for each ward, provided from the team based at Morriston Hospital.

Medical services remaining at Singleton Hospital including haematology and oncology will have 24/7 medical cover provided by a middle grade and SHO.

5.0 Demand and Capacity

Demand and capacity modelling has been undertaken to assess the impact of the AMSR programme on current resources and to inform the future service model described in section 4.

The outputs of this are detailed in Table 5

Table 5: Demand and Capacity – Bed Requirements

	Baseline		AMSR requirement		
Site	Agreed resourced Medical beds('22)	Actual beds occupied	Capacity required (97% occupancy)	Resourced beds available	Variance against resourced beds before mitigations
Morriston	267	268	485	267	-218
Morriston ED		30			
Singleton	158	196			
TOTAL	**425**	**494**	**485**	**267**	**-218**

Note: the resourced medical beds have been calculated on resourced beds from the workforce perspective and the capacity required has been calculated on activity and average length of stay (before any assumed savings from efficiency schemes).

The above table highlights the current pressures within which medicine is delivered across both sites and has been raised throughout the programme as a significant risk to delivery.

Despite a bed base of 425 across both sites, on average an **additional 69** beds are occupied by medical patients – this could be through utilising beds identified for another specialty, in utilising additional surge areas, through additional patients being placed on wards and through utilising the ED and ambulances as 'boarding' for patients who are unable to access medical beds.

In closing down all medical beds at Singleton, the actual gap from the beds which are resourced and the new requirement is **218 beds**.

It is recognised that there are a number of opportunities to improve flow and reduce LOS across both systems and through implementing a dedicated AMU on the Morriston site.

Current average LOS for medicine at Swansea bay has been increasing over the past few months, largely driven by the clinically optimised impact. It is recognised there are opportunities to improve on this position.

Length of Stay Opportunities	
Current LOS- Combined medicine	11.8
Average LOS in the UK	7.6
Upper quartile LOS	6.1

If Swansea Bay was to move to upper quartile for medicine, that would **equate to 130** beds which would contribute significantly towards the 218 gap. Length of stay improvement plans, coupled with investments in out of hospital services to support admission avoidance and support early discharge have been invested in by the health board to support the overall capacity issues experienced, not just as a result of Covid but by the systemic challenges faced by the health board.

Table 6 below provides an overview to these schemes and highlights the original anticipated gain, the revised gain and when any gaps/new schemes are expected to deliver.

Table 6: Bed Resource Requirements for AMSR and Mitigations

Scenario 4 - As discussed at AMSR Board - May 2022

Current Funded Morriston Emergency Medicine Beds		267									
Beds currently consumed at Morriston by medicine patients (excluding ED)		268									
Modelled emergency medicine demand (actual) - 80th centile Capacity required (@100% occupancy)		485	97% Occupancy	Estimate Quarter of Delivery of Bed Changes							
Deficit between current resourced Medical beds v modelled capacity		-218		Q1 2022/23		Q2 2022/23		Q3 2022/23		Q4 2022/23	
IDENTIFIED MITIGATIONS	Original expected delivery	Annual Bed Changes	Deficit balance	Bed Changes	Deficit balance	Bed Changes	Deficit balance	Bed Changes	Deficit balance	Bed Changes	Deficit balance
Enfys (New Funded Beds)		45	-173		-218		-218	45	-173	45	-173
Singleton - COP beds to remain		90	-83				-218	90	-83	90	-83
Additional transitional beds available to acute medicine		25	-58	25	-193	25	-193	25	-58	25	-58
Virtual wards - Bed/Demand Reduction-Phase 1	22	0	-58	11	-182	15	-178	17	-41	22	-36
Pathway 2 & 4 (D2RA) - Bed reduction	48	10	-48		-182	10	-168	10	-31	10	-26
LOS Improvements - SAFER including discharge lounge(non COP opportunities)	33	10	-38		-182	10	-158	10	-21	10	-16
Admission avoidance - extending hours OPAS		11	-27		-182	11	-147	11	-10	11	-5
Efficiencies from implementing AMU/SDEC-phased over a year		29	2		-182		-147		-10	5	0
Specialist palliative care - Bed reduction		7	9		-182	7	-140	7	-3	7	7
Cardiology - heart failure business case		4	13		-182		-140		-3	4	11
Additional virtual wards - Phase 2	22	5	18		-182		-140	5	2	5	16
Pathway 3 LOS reduction - Gorseinon		4	22		-182	4	-136	4	6	4	20
Increase occupancy to 100%		14	36	14	-168	14	-122	14	20	14	34
Repurpose surgical beds		6	42		-168	6	-116	6	26	6	40
Total impact of initial mitigating actions - Phase 1		**260**	**42**	**50**	**-168**	**102**	**-116**	**244**	**26**	**258**	**40**

The above table illustrates benefits from LOS improvement schemes to support a reduction in the number of beds that medicine will require – these schemes are not without risk and robust project assurance is required to alert to any risks in delivery of any scheme or if an increase in referrals/LOS is seen. Further investment is required to support additional schemes associated with hospital at home and rehabilitation mitigation against a potential additional loss of 30 beds to the healthboard if schemes are not in place to mitigate against the move of ward 4 into the current bed base at NPT (this is excluded from this case).

As a result, Table 6 illustrates there will be a **deficit of beds of 106** at the end of quarter 2 (of 2022/23) if medicine operates within the principles agreed in the design of the model after all of the mitigations identified. This gap reduces to positive position of 36 beds as the benefits from the Acute Unit opening and other LOS schemes materialise – this is at 100% occupancy. Further schemes will be required across the healthboard to ensure the beds at Singleton are transitional only.

6.0 Workforce Implications

The initial request was to develop workforce plans which support 7-day models of care which are responsive to demand profiles and respond to the local and national recommendations with regards to the design of acute models of care. Where possible, benchmarks have been utilised to inform the model and test affordability.

The following assumptions were made with regards to existing staff availability to resource the new model (subject to the outcomes of an OCP – staff will participate in a preference process with the aim to align clinical and leadership skills to the specialty – this may result in a different outcome to the assumptions made):

- The predominant principle of the new model of acute care focuses on the provision of senior clinical decision making within the acute medical hub, namely within the Acute Medical Unit (AMU), Short Stay Unit (SSU), Same Day Emergency Care (SDEC) and across 10 medical wards at Morriston Hospital. It is anticipated that all physicians currently participating in general internal medicine on the Singleton and Morriston sites will be required deliver acute medicine to support 7-day rotas on the Morriston hospital site.
- All nursing (registered and un-registered) staff who currently working within AMAU, RAU at Morriston Hospital and SAU at Singleton Hospital will support the new AMU
- All clinical teams (registered and unregistered) currently working within the Medicine Divisions at Singleton and Morriston Hospital will work on the various medicine speciality wards at Morriston Hospital.
- It is proposed that Ward 4 at Singleton Hospital will merge with Ward C at Neath Port Talbot Hospital as a Stroke and Ortho-Geriatric Rehabilitation Ward.

The workforce requirements have been signed off by the AMSR Programme Board and have been subjected to various 'check and challenge' sessions by the executive team. Further detail of this is provided below.

Table 7 highlights the impact of the AMSR programme on staff groups following the development of the AMSR workforce plan (medical staff are excluded)

Table 7: Impact of AMSR Workforce Plans on Staffing Groups

STAFF GROUPS	TOTAL	Band 8B	Band 8A matron	Band 8A ANP	Band 7	Band 6	Band 5	Band 4	Band 3	Band 2
NURSING										
TOTAL SIP as at Month 11	**467.18**	**0.00**	**5.50**	**2.00**	**15.40**	**25.83**	**175.22**	**15.64**	**5.94**	**221.65**
TOTAL Requirement	**641.64**	**0.00**	**5.00**	**5.90**	**20.45**	**31.45**	**269.49**	**13.56**	**17.18**	**278.61**
TOTAL Current Vacancies	**-117.64**	**0.00**	**0.50**	**-2.00**	**0.40**	**-2.62**	**-87.87**	**15.64**	**-1.06**	**-40.63**
TOTAL Current Staffing Gap	**-174.46**	**0.00**	**0.50**	**-3.90**	**-5.05**	**-5.62**	**-94.27**	**2.08**	**-11.24**	**-56.96**
PHARMACY										
Current Est. as at Month 11	**18.20**	0.50	3.50	0.00	4.60	0.00	8.60	1.00	0.00	0.00
Required Est. Phase 1	**31.70**	0.50	6.00	0.00	9.60	0.00	11.60	4.00	0.00	0.00
Current Vacancies	**-4.00**	**0.00**	**0.00**	**0.00**	**-1.00**	**0.00**	**-1.00**	**-2.00**	**0.00**	**0.00**
AMSR Staffing Gap	**-13.50**	**0.00**	**-2.50**	**0.00**	**-5.00**	**0.00**	**-3.00**	**-3.00**	**0.00**	**0.00**
THEARAPIES										
Current Est. as at Month 11	**9.20**	**0.00**	0.00	0.00	3.20	2.00	2.00	2.00	0.00	0.00
Required Est. AMSR	**13.90**	**0.00**	0.00	0.00	2.50	3.40	5.00	3.00	0.00	0.00
AMSR Staffing Gap	**-4.70**	**0.00**	**0.00**	**0.00**	**0.70**	**-1.40**	**-3.00**	**-1.00**	**0.00**	**0.00**

6.1 Nursing Staff

Table 8 provides further detail of the nursing based on the various components of the programme. The nursing models support different work patterns, reflecting the different patterns of work currently operated at Singleton and Morriston. The workforce has been based on NSA guidance for all areas and has been subject to several check and challenge sessions between the Heads of Nurses from Singleton and Morriston and the Director of Nursing. Further work is required post implementation to assess the impact of the changes with regards to 'acuity' on specialty wards and also any benefits gained through the programme.

Table 8: AMSR Workforce - Nursing

	Overall Nursing	TOTAL	Band 8A matron	Band 8A ANP	Band 7	Band 6	Band 5	Band 4	Band 3	Band 2
WARDS	Current SIP Wards	**374.88**	5.50	0.00	10.40	20.80	136.69	13.80	3.15	184.54
	Required Est. Wards - 267 beds	**380.59**	3.00	0.00	8.00	18.00	162.50	6.28	5.45	177.36
	Required Est. 90 bedded Wards (Sing)	**136.53**	1.00	0.00	3.00	6.00	56.18	0.00	0.00	70.35
	Discharge Lounge	**8.00**	0.00	0.00	0.00	0.00	3.00	0.00	0.00	5.00
	Budgeted Est. Wards	**452.00**	5.00	0.00	10.00	19.00	206.25	0.00	6.00	205.75
	Current Vacancies	**-77.12**	**0.50**	**0.00**	**0.40**	**1.80**	**-69.56**	**13.80**	**-2.85**	**-21.21**
	AMSR Staffing Gap Wards	**-5.71**	**2.50**	**0.00**	**2.40**	**2.80**	**-25.81**	**7.52**	**-2.30**	**7.18**
	AMSR Staffing Gap Wards + D-lounge	**-13.71**	**2.50**	**0.00**	**2.40**	**2.80**	**-28.81**	**7.52**	**-2.30**	**2.18**
	AMSR Staffing Gap Wards + 90 beds	**-142.24**	**1.50**	**0.00**	**-0.60**	**-3.20**	**-81.99**	**7.52**	**-2.30**	**-63.17**
AMU	Current SIP AMU	**88.30**	0.00	0.00	4.00	5.03	38.53	1.84	2.79	36.11
	Required Est. AMU	**104.60**	1.00	1.00	8.45	6.45	42.52	7.28	9.00	28.90
	Budgeted Est. AMU	**124.82**	0.00	0.00	3.00	9.45	56.84	0.00	1.00	54.53
	Current Vacancies	**-36.52**	**0.00**	**0.00**	**1.00**	**-4.42**	**-18.31**	**1.84**	**1.79**	**-18.42**
	AMSR Staffing Gap AMU	**-16.30**	**-1.00**	**-1.00**	**-4.45**	**-1.42**	**-3.99**	**-5.44**	**-6.21**	**7.21**
SDEC	Current SIP Acute Hub	**1.00**	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
	Required Est. Acute Hub	**12.02**	0.00	1.00	1.00	1.00	6.29	0.00	2.73	0.00
	AMSR Staffing Gap Acute Hub	**-11.02**	**0.00**	**-1.00**	**0.00**	**-1.00**	**-6.29**	**0.00**	**-2.73**	**0.00**
	Current SIP OPAS	**3.00**	0.00	2.00	0.00	0.00	0.00	0.00	0.00	1.00
	Required Est. OPAS	**7.90**	0.00	3.90	0.00	0.00	2.00	0.00	0.00	2.00
	AMSR Staffing Gap OPAS	**-4.90**	**0.00**	**-1.90**	**0.00**	**0.00**	**-2.00**	**0.00**	**0.00**	**-1.00**
TOTAL	**TOTAL SIP**	**467.18**	**5.50**	**2.00**	**15.40**	**25.83**	**175.22**	**15.64**	**5.94**	**221.65**
	TOTAL Requirement	**641.64**	**5.00**	**5.90**	**20.45**	**31.45**	**269.49**	**13.56**	**17.18**	**278.61**
	TOTAL Current Vacancies	**-117.64**	**0.50**	**-2.00**	**0.40**	**-2.62**	**-87.87**	**15.64**	**-1.06**	**-40.63**
	TOTAL AMSR Staffing Gap	**-174.46**	**0.50**	**-3.90**	**-5.05**	**-5.62**	**-94.27**	**2.08**	**-11.24**	**-56.96**

Table 8 highlights a staffing gap of 174.46wte for the programme based on current SIP at Month 11 – this gap would reduce to 37.93wte if the temporary wards are Singleton were not required.

This shows that post AMSR, the level of vacancies currently experienced will remain largely the same and there are significant challenges with regard to Band 5 and Band 2 nursing which requires a robust workforce plan to mitigate against the risk to these vacancies.

The table highlights the gaps based on current SIP - the gaps by area will be determined as an outcome of the OCP.

6.2 Therapy

The therapy workforce plan, which requires £321k funding to address historical decisions to fund the services to 42 weeks, rather than 52 weeks a year, requires an additional £327kto meet the non-recurrent demands of the additional 90 beds at Singleton - increase resource to support the additional 25 beds at Morriston (Dyfed and TAWE) is included in the recurrent position.

Temporary recruitment into therapies through fixed term posts or through the use of agency/bank is not deemed feasible and therefore it is proposed that posts are recruited permanently and any increase post the transitional phase will be managed through natural turnover/vacancies or will contribute to extending further the therapy offer across the sites.

6.2.1 Therapy at Morriston

At Morriston the service will be increased from the current 42 weeks' provision to 52 weeks' provision across the weekdays for OT and physio. This will provide a consistent service with additional capacity and enable flexible rotas to meet demand with core hours from 8am to 6pm. Whilst the model does not assume additional resource available to support the AMU at the weekend other than the OT ED resource, the total resource will be reviewed and evaluated within the first 12 months, alongside the service to 90 beds at Singleton, to prioritize allocation and ensure cover is provided to where we can have most impact for the patient (this includes the proportion of the £750k to support working at weekends for medicine (the rest of the funding being allocated to trauma and Orthopaedics)).

6.2.2 Therapy at Singleton

At Singleton, the current level of provision will be maintained for the 90 contingency beds plus additional 0.6wte speech and language therapy. This does not provide for a weekend service or extend to 52 weeks.

6.2.3 Therapy at NPTH:

The existing Therapy staff working on ward 4 at Singleton (Orthogeriatrics and stroke) will transfer to NPTH to consolidate the rehab services. The proposal as set out will support The centre of excellence for Neath as per the agreed '*Changing for the future documents'* and the expansion in elective orthopaedics from May 2023

The therapy workforce plan assumes the SaLT provision of 0.3wte will move across to Morriston but due to affordability issues, does not provide for any additional investment in this area which is an acknowledged service deficit.

6.3 Pharmacy

A number of options were considered as part of the AMSR programme which are outlined in Table 7

Table 9: Pharmacy Model to respond to AMSR programme

Option	Description
Option 1	Weekday service (9-5pm) to AMU and Medical wards (incl 90 beds at Singleton) and weekend morning service at Morriston – no enhanced cover included here for annual leave etc
Option 2	Resilient weekday service (9-5pm) to AMU and Medical wards (incl Singleton) and weekend morning service at Morriston
Option 3	Resilient extended weekday service (8-8pm) to AMU and Medical wards (incl Singleton) and weekend morning service at Morriston
Option 4	Service provided: Extended hours, seven-day service to the Acute Medical Unit and medical wards (inpatient beds at Morriston and traditional core service hours to 90 beds at Singleton).

Option 1 represents the status quo which combines the Morriston and Singleton workforce but is not a resilient service as has no enhanced cover in here nor does it recognise the impact of the anticipated change in focus at the front door as a consequence of the new model in AMU.

Option 2 was therefore supported at the 'check and challenge' session, which requires an additional investment of £456k recurringly and £91k non-recurringly as part of the transitional period. This will provide an increase to the pharmacy provision to 52 weeks of the year and extend the services into the weekend. This option will provide:

- A robust weekday service (9am-5pm) to the AMU Unit and Medical Wards (beds at Morriston and 90 beds at Singleton) based on 52 weeks
- Weekdays 9am to 5pm and Saturday/Sunday mornings
- Attendance on daily board rounds.
- Attendance on daily MDT ward rounds.
- Team will work flexibility across admissions and the ten medical wards being deployed according to workload in respective areas.
- At admission, service will aim to review and complete a medicines review (medicines reconciliation) within 24 hours in accordance with NICE recommendations

6.4 Medical Workforce

As described previously, the predominant principle of the new model of acute care focuses on the provision of senior clinical decision making within the acute medical hub, namely within the Acute Medical Unit (AMU), Short Stay Unit (SSU), Same Day Emergency Care (SDEC) and across 10 medical wards at Morriston Hospital.

It is anticipated that all physicians currently participating in general internal medicine on the Singleton and Morriston sites will be required deliver acute medicine to support 7-day rotas on the Morriston hospital site.

The proposed future service and workforce models for medical staff are underpinned by the following:

- A single medical workforce model will be essential.
- Dedicated Care of the Elderly (CoTE) consultant cover across AMU, SSU and SDEC (and two of the 11.5 medical wards that will be allocated to CoTE)
- Some professional staff groups will be required to rotate between hospitals and medicine areas within hospitals to maintain and enhance skills.
- Some professional staff groups will be required to work across more than one site on a sessional basis.
- Dedicated staffing and continuity of care will be paramount to acute assessment and short stay area in the AMU
- Extended hours of operation to include 7-day cover and daily ward rounds/board rounds as required within SAFER
- 24/7 cover by a middle grade and SHO for Singleton for oncology and haematology
- Medical training curriculum, Health Education Improvement Wales (HEIW) standards will be factored into workforce plans.

HEIW - By nature of the working patterns and rotations, HEIW junior doctors' bases may change. The Health Board is liaising directly with HEIW to inform potential future variations to bases and on call arrangements.

The proposed changes to the medical staffing workforce model will be managed via the job planning process for team and individual job plans.

6.4.1 Medical Staff – Consultants

Table 10 provides the overview of the weekly sessions required to deliver the AMU and specialty wards and the capacity available as per the current job plans. This shows that from a capacity perspective, there are sufficient DCCs available to meet the level of demand.

Table 10: Capacity and Demand – Consultant Workforce

Requirements	Demand/week/DCC	Capacity from job plans/week/DCC	Variance/DCC (before COTE additional posts)
AMU	69.7		
Ward cover	69		
TOTAL	**138.7**	**143.1**	**4.4**

A number of assumptions have been made in assessing both the demand detailed and also the capacity available from the consultant team which will be subject to the OCP and is a recognised risk

- **Demand Consultant Workforce Requirements**
    - The workforce requirement has been determined on the service model and NOT existing working practices or individual working preferences.
    - The service model has been based on the requirement for a 7-day consultant delivered model.
    - The demand required of the consultants to support the AMU and the specialty wards has been based upon the assumptions this is ALL planned work as per the Consultant contract and each DCC assumes 3.75 hours. It has been assumed that bank holidays attract the same DCC expectation as other weekdays

- **Capacity Consultant Workforce Requirements**
    - In calculating the capacity available to contribute towards support the medical intake and specialty wards, all planned sessions, clinical administration, SPA and other responsibilities have been excluded and assumed they are NOT available to support the acute medical work
    - All physicians participating in the acute medical intake should have the skills to manage any patient presenting with an acute medical problem for up to 48 hours, whether they practise AIM as their sole specialty or GIM with another specialty.
    - No allowance has been made on DCC available associated with the OCP and change of location
    - NPT consultants are excluded from the workforce calculation, as have renal and cardiologists currently based at Morriston

Further detail is provided in Table 11 with regards to the capacity available from the current job plans and Table 12 and 13 details the proposed requirements for the AMU and also Specialty Wards.

Table 11 – Consultant capacity available as per existing job plans

	Current DCC Allocation in existing job plans			**TOTAL**
Specialty	ICOP/RAU/ACP	Medical Take	IP wards	
Acute Medicine (Morriston)	27	5.5	2	**34.5**
COTE	24	10.5	21	**55.5**
Gastroenterology		2.5	22.84	**25.34**
GIM		2.5	8	**10.5**
Respiratory		9.4	23.9	**33.3**
Secondary Cardiology		0.5	5.5	**6**
Stroke		3	9	**12**
Total	51	33.9	92.24	**177.1**
Total available annualised	**41**	**27**	**75**	**143.1**

6.4.1.1 Consultant Workforce – AMU

The medical workforce will be provided primarily by the core Acute Medicine Team supplemented by the on call medical team. There will be 2 clinical 'sub teams' within the AMU : AMU Triage and Assessment Team and AMU Short Stay Team. Out of hours medical cover is provided by the GIM on call physician.
Additional specialist medical support may be provided by the medical and non-medical specialty teams to provide expert clinical advice, support discharge decision making in complex specialty patients, and identifying specialty patients for transfer

Table 12 – AMU Consultant Workforce

	Roles	**Description**	**Weekly DCC**	**Comments**
Weekday Consultant Cover AMU – Monday -Friday				
AMU ASSESSMENT TEAM	AMU Consultant Lead 1	Lead cons medical take 0800-1600	10.7	This consultant provides the daily leadership to the AMU and will work in partnership with the AMU coordinator to run the unit and deploy the overall team to ensure effective flow into/through and out of the unit. Clinically this consultant will oversee the assessment area and provide support into SDEC and ED where required This consultant also will be responsible for promoting active decision making to support timely discharge across the whole unit. This consultant will absorb any on-going issues from the short stay wards post 4pm up to10pm
	AMU Consultant Lead 2	Lead cons medical take 1500-2200 (and overnight on call)	9.3	

	ECU & assessment unit support	AMU Consultant providing support to ECU and assessment unit : 0800-1200	5.3	This consultant provides additional support to the ECU and assessment unit at the start of the day – supporting the patients who have been admitted overnight and the patients within the ECU
	Weekday AMU consultant support	AMU consultant providing support the AMU, ECU and SDEC 12-20.00	10.7	
AMU SHORT STAY TEAM	Short Stay Unit A side - frailty	A side SS and SDEC –frailty cons 0800-1600	10.7	This consultant covers the acute frailty short stay area with support from AMU consultant post 4pm
	Short Stay Unit B side – general acute	B side SS and ECU cons 0800-1600	10.7	This consultant covers ECU as well as the short stay beds on the acute short stay unit with support from AMU consultant post 4pm
	Weekend Consultant Cover – Saturday and Sunday – Daily requirement			
AMU assessment team	AMU Consultant Lead 1	Lead cons med take 0800-1600	4.3	Daily leadership of the Unit plus support to SDEC and ECU
	AMU Consultant Lead 2	Lead cons med take 1500-2200	3.7	Daily leadership of the Unit plus support to SDEC and ECU
AMU SHORT STAY	Short Stay Ward A&B Side and ECU- frailty consultant	Short Stay Ward A&B Side and ECU- 0800-1600	4.3	Short stay ward cover for both side and ECU
	TOTAL Sessions/week for AMU	**Weekday sessions- 57.4 & weekend 12.3**	**69.7**	**NB – 69.6 without roundings**

6.4.1.2 Consultant Workforce - SPECIALTY WARDS

Table 13 below details the proposed ward configuration, clinical team assigned to the ward and the required SPAs to support this model.

Renal and cardiology have been excluded from the capacity and demand calculations as these services are tertiary in nature.

Table 13 – Ward Configuration proposed at Morriston and Consultant requirements

Ward	Beds	Consultant Team	Description	Weekly DCC
Daily Consultant Ward Cover 7/7				
Cardigan	24	Renal	Daily Consultant ward rounds/board rounds – expectation that board rounds starting at 08.00 during the weekdays with an allowance of 1 session per day for each ward	0 (covered o/s medicine)
Gowers	30	Neurology/GI M-Gastro		7
RAU – To be named Ward E	17/19	COTE		7
Ward C	28	Cardiology/General Medicine		0 (covered o/s medicine)
Ward D	25/26	COTE		7
Ward F	24	Stroke		7
Ward G	25	Gastro		7
Ward J	29/28	Respiratory		7
Ward R	27	Respiratory		7
Ward S	26	ID/Diabetes & Endo		7
TAWE/Dyfed	25	Gen Med		7
TOTAL Sessions at Morriston				**63**
Singleton Hospital including 90 beds	**90**	**COTE/Gastro**	**Consultant ward rounds – 2 per week for each ward**	**6**
Requirements for all sessions				**69**

Table 13 shows a requirement for 69 sessions a week to deliver an annualised 7-day ward cover service for the wards at Morriston, with 1 session assumed per day. This will be subject to the outcome of the OCP.

7.0 Financial Implications

The financial impact of the AMSR programme is:

- £3.9m capital - additional capital is also required to refurbish TAWE back to a ward – the costs of this have not yet been provided but it is assumed it will be covered in discretionary fund
- A saving of £507k in resourcing all clinical areas by all staff groups recurringly when compared to current budgets – this includes transferring Dyfed to medicine and opening up TAWE as a 15 bed ward and discharge lounge (Table 14)
- A transitional cost of £5.5m above baseline budgets (£6m less the recurrent underspend) which includes keeping 3 wards open at Singleton and supports 2 months of double running as part of the transition. The transitional costs have been split into the 2 financial years with the assumption that all Singleton wards close end Oct 2023.
- A saving of £76k against the SDEC National allocation (Table 15)

The assumptions behind the financial impact have included:

- The calculations have been based on releasing all funding from the 'closing' beds in Singleton, any decision to 'reuse' those beds for other purposes (surgical) or an inability

to close the beds due to patient numbers, would require staffing to be funded back into that space.

- There has not been a full assessment of non-pay, it is expected that a small non pay saving would be released from bed closures in wards but an assessment of excess travel costs resulting from changing bases still needs to be undertaken and may result in a cost pressure. Similarly, final equipping costs (revenue) have not been assessed.

- Medical staffing requires an additional investment to reflect the additional 25 beds at Morriston for the junior team with the assumption that the consultant sessions are available within the job plans. Additional non-recurrent investment in junior doctors is also required to support 30 beds at Singleton (60 beds had been factored into previous rota plans for the model). It should be noted that whilst the assumption has been made of the availability of the consultant sessions, there may be a cohort who are unwilling or unable to participate in the new design and there will then be an additional cost – all be it sessions would be released for use in other areas. Further detailed work is required with the clinical teams as part of the OCP to review this.

- This assumes weekend work is planned and no enhanced rate is offered to medical staff, an enhanced rate offer will increase cost and potentially impact other specialities alongside.

- Any additional medical staff costs could be offset by reducing input into wards, but there may be an associated benefit reduction.

The current financial position for medicine across Singleton and Morriston (excluding ED) at Month 12 was £4.3m – this is made up from Morriston overspend of £4.1m; Singleton overspend of £0.2m overspend. ED also has a £2.1m overspend at Month 12. This clearly represents a significant overspend which is driven predominantly from discretionary expenditure associated with vacancies across all staff groups and the need to staff additional wards, in addition to the impact of covid which has not been resourced consistently through the year.

Table 14: AMSR Financial costs – excludes SDEC

		Recurrent - Annualised Cost		Non Recurrent (Transitional) -				
Staff Group	**Area**	**wte change (from recurrent baseline)**	**Budget Requirement (Above Recurrent Baseline)**	**wte change (from recurrent baseline)**	**Budget Requirement (Above Recurrent Baseline)**	**22/23 Budget Impact**	**23/24 Budget Impact**	**Additional Comments**
Medical Staffing	Consultant/ SAS - Medical Footprint	0.00	0	0.00	0	0	0	Work indicates that there is enough overall consultant coverage to staff the new service configuration at no additional cost, however there are risks (described in detail elsewhere) around whether this is operationally viable. These will materialise through the OCP.
	Non Consultant - Medical Footprint	4.61	262	1.24	71	167	238	52 week additional cover for Morriston medical beds on a recurrent basis, including 1 registrar covering weekends starting from October 2022. Additional cover for Singleton 5 days per week, 52 weeks. Singleton assumed to be non recurrent for one year from October 2022. Costs are based on substantive appointments, if locum cover is required an additional cost of £190k per annum for Morriston and £55k for Singleton would be incurred.
	Total	**4.61**	**262**	**1.24**	**71**	**167**	**238**	
Nursing	Morriston Wards	156.34	5,826			3,257	5,826	requires £3.7m investment. Dyfed ward £713k and Tawe ward £869k The remaining additional cost reflects Morriston wards acuity compared to recurrent funded budgets with uplifts required for F, J and Gower. Enfys is assumed to open from October 2022 with full staffing, Dyfed is open all year (as currently used for surge), Tawe assumed to open from November 2022.
	Discharge Lounge	5.34	192			96	192	Discharge lounge within Tawe footprint.
	Singleton Wards	(203.18)	(8,067)	135.53	5,464	(1,085)	(4,880)	Ward closures in Singleton release £8m for nurse staffing, but then an additional £5.5m is required to open the 90 transitional beds. This is assumed to be non recurrent and costed at top of substantive scales. However if agency staff were required to fill these temporary posts the cost would like be c35% higher. Wards are assumed to close with transitional capacity opening at the same time from November 2022.
	Double Running Overlap					688		A 2 month additional cost during transition for dual running of the Singleton wards. Costed at agency rates due to likelihood of agency cover being required.
	Quality & Safety	3.00	137			69	137	1 Band 7 Nurse Educator 1 Band 6 Practice Development Nurse 1 Band 4 Practice Development Nurse
	Total		**(1,312)**		**5,464**	**3,025**	**1,275**	
Administration & Clerical	A&C	6.48	304	3.00	72	182	346	Ward cover for all medical wards in Morriston 7 days a week, 8am to 6pm including holiday cover but not training/ sickness cover. Singelton transitional wards remain Monday - Friday 9am to 5pm. Singleton wards assumed from transition in November 2022 to October 2023.
Management	Additional Clinical Lead Payments		50			25	50	
	Total		**354**		**72**	**207**	**396**	
Pharmacy	Pharmacy Cover	3.10	456	2.00	31	274	502	5 days 9-5pm/ 52 weeks / Sat Sun AM. Assumed from October 2022.
	Total		**456**		**31**	**274**	**502**	
Therapy	All Therapists	6.50	321	5.40	327	324	485	Assumes the transitional cover runs for 12 months from October 2022.
	Total		**321**		**327**	**324**	**485**	
Facilities	All staff (portering, hostess, domestic)		12		0	6	12	Facilities transfer assumed to be cost neutral.
	Total		**12**		**0**	**6**	**12**	
			(507)		**6,026**	**4,002**	**2,967**	

Table 15: SDEC Financial Cost

Area	Required Resource (wte)*	Cost	Baseline Funded	Budget Investment Required
SDEC - Acute Hub	0	1,805	836	969
SDEC - OPAS Hub	0	570	118	452
Total	**39.14**	**2,375**	**954**	**1,421**
Funding available				**1,497**
Total				**- 76**

8.0 Benefit Realisation

There are a number of benefits anticipated from the implementation of the AMSR Programme which require further quantification to ensure these can be tracked as part of the benefit realisation of the programme. These benefits are outlined below:

	Benefits
Single Medical Intake	• More effective and efficient rotas. • An ability to meet some of the recommendations of the "Safe medical staffing" report of the Royal College of Physicians. • The ability to run enhanced acute medical services 7 days a week. • Enhanced teaching and training opportunities. • Improved opportunities to have stable teams and continuity of care.
	• Co-location of all the support facilities required for early diagnosis and treatment facilitating early discharge. These will be available 24/7. • Co-location with acute GP services. • Easy access/in-reach of specialist medical services (e.g. cardiology, respiratory, renal, vascular surgery and intensive care) when necessary. • Access to Specialist services led by nurses include palliative care, alcohol liaison, COPD and diabetes. • The ability to off-load the over-crowded Emergency Department.
Quality, Safety, Patient experience, Efficiency & Effectiveness	• Improvement in the quality of care and enhanced patient and staff experience through reduction in delays to senior decisions makers and services designed around the need of the patients with appropriate staffing models which cover seven days a week. • Reduction in vacancies across all staff groups resulting in improved staff and patient experience and increased efficiencies. • Improvement in trainee experience with access to AMU and SDEC services. • A reduction in some intensity bandings as a result of centralisation of resources. • Increase medical cover across all wards to support more timely decision making and reduce risk of delays. • Same day emergency care whenever possible - patients should only be in a hospital if there is some element of their care that can only be delivered in a hospital setting. • Reduction in LOS resulting in reduction of risk of cancellation of other services requiring bed utilisation at Morriston Hospital.

	• Reduction in medication errors and increased opportunities to optimise medicine in collaboration with the MDT. • Improved financial sustainability with the reduction in cost.
	• A merge of skilled workforce from across both sites to enhance the speciality nursing care delivered on the medical wards/units. • Senior nursing leadership team to support the quality and safety agenda to improve patient outcomes. • Improved patient experience through pathways/streaming to allow for patients to receive the specialist nursing care at the earliest opportunity of their assessments/admission. • The reduction of the number of patient moves will improve patients experience, continuity of care and LOS. • Enhanced frailty pathway will have a positive impact on LOS and reduce risk of deconditioning. • A practice development team will ensure that medicine maintain a skilled workforce to deliver the quality care required. This will also support with nursing development and will have a positive impact on nurse recruitment and retention. • An increase in cubicles to support the ability to isolate
Overall, according to the Royal College of Physicians, the acute medical unit should be expected to reduce inpatient mortality, reduce length of stay and reduce emergency department access block without increasing readmission rates, whilst improving patient and staff satisfaction	

9.0 Risks

The AMSR Programme Board has reported a number of risks associated with the programme which have been escalated throughout the governance structure and these are highlighted in Table 16.

Table 16: AMSR Programme Risks

Description	Mitigation	Score
Affordability of the AMSR model could result in the inability to deliver the required benefits	An option based approach to delivering the model i.e. phasing in the workforce to achieve the optimal 7-day working arrangements. Check and challenge sessions from executive leads and AMSR team.	20
Capacity and capability to support the development and implementation of the programme	Dedicated support with access to specialist support where required is needed to support the transition to the new working arrangements.	20
Failure to secure engagement from staff and staff side to support the changes required to deliver the new model	Clinical and management leadership to be appointed. Active engagement with staff side and teams to support co-design of the implementation of the AMSR programme.	20
Failure to deliver LOS requirements and further mitigations to address the capacity gain identified in the programme	Mitigations at service groups and health board to be scrutinised to provide assurance of the deliverability of schemes identified. Active engagement with partners to support reduction of D2RA delays across all pathways.	20

Failure to improve ED 4/12hr performance prior to acute admissions centralisation	Key health board-wide operational priority and will factor in the Winter Plan. Aligned to work plan for Step/Step Down workstream. Key issue on Exec agenda and requires external agency involvement.	20
Failure to complete estates works for the acute hub in time for acute admissions centralisation - Sept 2022	Enfys project Board in place with clear escalation for any risks to delivery.	20
Failure to address staff vacancy rates and recruit to critical posts – affordability and efficiency impact	Development of clear workforce plans to address identified gaps with mitigations to be further clarified.	20
Failure to agree clinical models and SOPs in time for acute admissions centralisation	Clinical models agreed and costed. Review of finalised staffing levels and financial impact being worked through to present at Management Board. Facilitated workshops to be established with key stakeholders to finalised SOP and implementation model	15

9.0 Implementation Plan

The AMSR programme is a significant change programme for the healthboard, not just in terms of re-designing the model in which medicine is delivered, but also in terms of the inevitable cultural differences associated with bringing together workforce from 2 different sites within the hospital, each with their own 'norms' of working. As such, the successful implementation of the programme requires additional resource to provide robust programme and project support, in addition to change agents who are able to work with the teams to further design and implement the new model of delivery.

Table 17 outlines the additional resource required to support the programme.

Table 17: Implementation resource

Area of Focus	Detail	Cost
Programme/Project support	Programme Manager; Project Manager	In post – funding secure
	Administrative support	£39k (B5)
Implementation Team	OCP Implementation	Graduate Trainee
	Clinical Facilitator - consultant	£142k (annual cost)
	AMSR Planning leads	In post – funding secure
	OD consultant	To be advised – day rate
	Implementation lead	£100k (external consultant)

10.0 Transition Plan

The AMSR Programme requires a complex transfer of services and staff. Whilst the centralisation of the take will take place on a given day, other changes such as ward closures and staff transfers will most likely take place over a more extended period-probably taking place over a four to six-week period.

As a result, there is (in effect) a period of 'double running' where a function has formally transferred (for example the acute take centralising at Moriston) but some patients remain on SAU at Singleton and therefore must be cared for. How long that area has to remain open depends on the ability to either discharge them or transfer them to another ward.

For the above example three operating principles arise:

1. There will be a need to maximise the number of staff available during the transition period – which ideally means having no annual/study leave during that period, reduction/cancellation in non-take/ward activities such as outpatients, audit meeting etc.
2. The transition period should be as short as possible as it will add to pressures on staff/more travel and most likely require temporary staff being engaged on premium rates. It is also requires more complex staffing and operational arrangements.

Because Singleton's bed base will be reducing from 158 to 90 (68 beds) efforts need to be made to start reducing the bed base PRIOR to the centralisation of the take. In practical terms that will mean (amongst other things) that priority will need to be given to placing Singleton's patients ready for discharge into the community. A failure to do so will lead to greater staffing problems (more beds= more staff) and a longer transition period. However, an unavoidable consequence of this is that greater pressure will be placed on Morriston's bed base.

Consideration has been to shutting the take at nights/at weekends/alternative days prior to the take centralisation date as a way of reducing the bed numbers in SAU and releasing staff to work at Morriston during those periods. Aside from the HR complexities of doing so the view (at present) is that the residual patient numbers in SAU will be such that few (if any) staff would actually be released.

As a result, the most likely way forward will be to agree an acute take centralisation date, look to maximise staffing over that period and shut the Singleton take as a 'big bang'. The same process would also be undertaken for IP rehab where form an agreed date all new patients requiring rehabilitation would transfer to NPTH only from Morriston.

Based on the above|:

During October the bed occupancy at Singleton will need to be reduced to enable at least one ward to be shut. Staff will be redeployed into remaining Singleton wards, undertake induction/training if ultimately moving to Morriston, have the opportunity to take leave etc.

Enfys will be occupied by the Acute Hub once Enfys has completed its commissioning period. That date is provisionally set as the 29th August.

There is a discussion on going whether other elements of Enfys should also start to be used prior to the centralisation date. Options include moving existing staff from Morriston's RAU/AMAU into the Unit and running the Morriston acute take from Enfys. No decision has been made on that and the Transition workstream will be making a recommendation on this in the near future.

A series of 'on site' staff induction/training on the new Unit function and procedures will need to take place proceeding the centralisation of both the acute take and IP rehabilitation.

Based on the current OCP timetable during the week commencing 31st October Singleton Assessment Unit will close to new admissions.

The remaining wards at Singleton will stop taking new admissions and will reduce on patient numbers as patients are discharged to then operate as a 90 bed post-acute/COP facility. This time it will take to do so is heavily dependent on community capacity but this paper assumes it will take at least a week for SAU to be closed as a ward area and a further 4 weeks for the remaining beds to close. During this period there are double running costs.

The transitional period will require flexibility as to staff location (especially for doctors) and the final staff transfers between sites/wards are likely to take place during December.

For the transfer of inpatient stroke and ortho-geriatric rehabilitation services a similar process will operate. That is, at a given date Ward 4 at Singleton will stop admissions of these types of patient (with all transfers from Morriston going to NPTH). The ward will over a defined time period reduce its bed compliment and any remaining patients absorbed into the 90 remaining bed/transferred to the care sector. Staff who have elected to transfer to NPTH will start to move at the point that admissions stop.

The above describes the outline process only. Within that, there are numerous matters of detail that require to be worked out between now and the end of the consultation period-for example how junior doctor and consultant rotas operate when the take has moved but some wards at Singleton still remain operational and require medical cover/ward rounds. The same question applies to a whole range of other services /staff including pharmacy, therapies and nursing.

Given the need to bolster staffing during the transition period it is important that the date is set and then kept to, as clinic cancelations, extra shifts etc. will need to be arranged and a moratorium on study/annual leave also applied.

More detailed work is required to finalise the transition plan and will be covered as part of the overall AMSR programme.

11.0 Gateway Review

Given the complex nature of the AMSR programme and the risks previously highlighted it is essential that the programme is kept under constant review as a standing item of the management board going forward. In addition, there should be formal 'go/no-go' decisions made through gateway reviews of the following management Boards:

- 1st June 2022
- 13th July 2022
- 24th August 2022

Central to 'go/no go' decisions will be current length of stay performance and readiness of the workforce to undertake location changes.