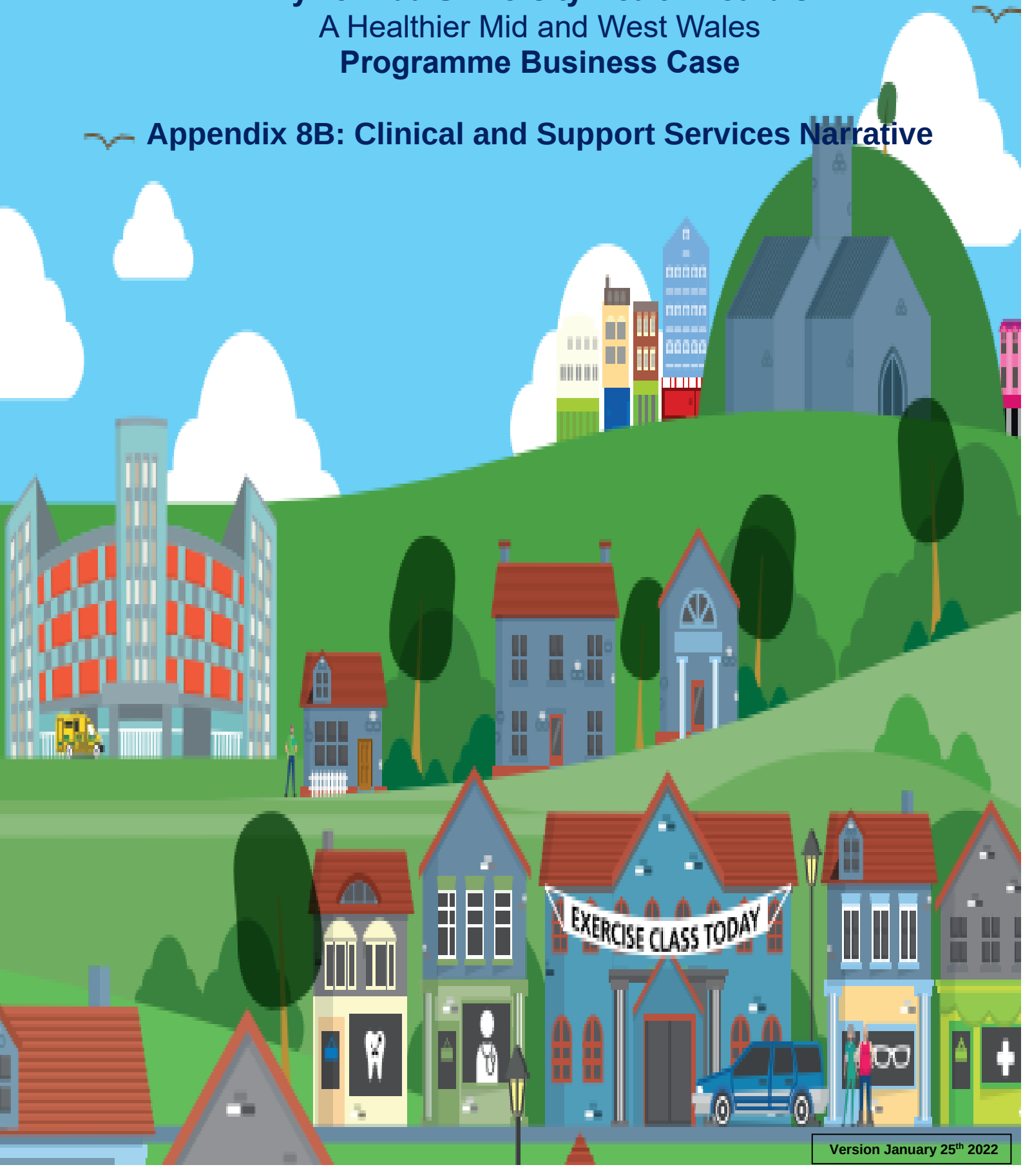
Bwrdd Iechyd Prifysgol Hywel Dda University Health Board

Canolbarth a Gorllewin Iachach
Cenedlaethau'r dyfodol yn byw bywydau iach

Date: January 2022

Hywel Dda University Health Board's
A Healthier Mid and West Wales
Programme Business Case

Appendix 8B: Clinical and Support Services Narrative



Version January 25th 2022

STRATEGIC HEALTHCARE PLANNING

Hywel Dda University Health Board

Abridged Clinical and Support Service Narratives

Urgent and Planned Care Hospital
Bronglais General Hospital
Prince Philip General Hospital
Glangwili Community Hospital
Withybush Community Hospital

January 2022

Contents

1.0 Introduction

The Hywel Dda University Health Board (HDUHB) ten-year health and care strategic vision (A Healthier Mid & West Wales – AHMWW) is to deliver whole system change to realise the population health ambitions, requiring a sustainable model for service delivery. The strategy sets out the commitment to work in an integrated way across health and social care at regional and locality level. The strategy describes a whole system approach to health and wellbeing and places significant emphasis on placing people and communities at the heart of the model and therefore the vital role community networks will play in achieving the required transformation.

The future community model aims to create a sustainable healthcare system for the future, requiring a shift from a focus on hospital-based care and enhancing the community-based offer. Underpinning this principle is a need to ensure that as much care can be provided as locally as possible.

The future model of care will have a network of integrated community hubs (health and well-being centres) and community hospitals supporting the health and social care needs for physical health and well-being, mental health and learning disabilities.

Each of the seven integrated community networks will be supported by one or more health and well-being centres which will bring a number of people and services together in one place and also provide virtual links between the population and the community network. Multidisciplinary teams and the wider networks will wrap around individuals and families.

In addition to providing access to diagnostics and consultations, the service offering within the community network will also include community beds to prevent individuals from needing to go to hospital as well as to support timely discharge. This will include beds within the community hospitals as well as commissioned beds within nursing and residential homes and extra care supported living facilities as well as providing support and care to people in their own homes.

The future service model includes a new Urgent and Planned Care Hospital in the south of the region which will operate as the main hospital site for Hywel Dda. It will offer a centralised model for all specialist children and adult services, be supported by a network of hospitals and community hubs which will provide more locality-based care including:.

- Bronglais General Hospital in Aberystwyth;
- Prince Philip General Hospital in Llanelli;
- Glangwili Community Hospital in Carmarthen;
- Withybush Community Hospital in Haverfordwest;
- A number of locally based community hubs.

1.1 Clinical and Non-Clinical Service Brief

This document sets out a high-level overview of the clinical models within each of the hospitals and describes the key service elements to support an effective functioning hospital, considering the most appropriate adjacencies and interfaces. The document has been prepared as part of the Programme Business Case development and is intended to support broad development and design considerations (block planning) and provisional cost estimates. As such, the document contains a high-level assessment of the functional requirements sufficient to determine indicative departmental space requirements at this early stage of development. In line with the overall project programme, detailed room by room schedules will be developed for subsequent phases of design development. A number of assumptions have been made at this stage which are summarised within this brief and accompanying supporting documentation (schedule of accommodation).

2.0 Service Configuration

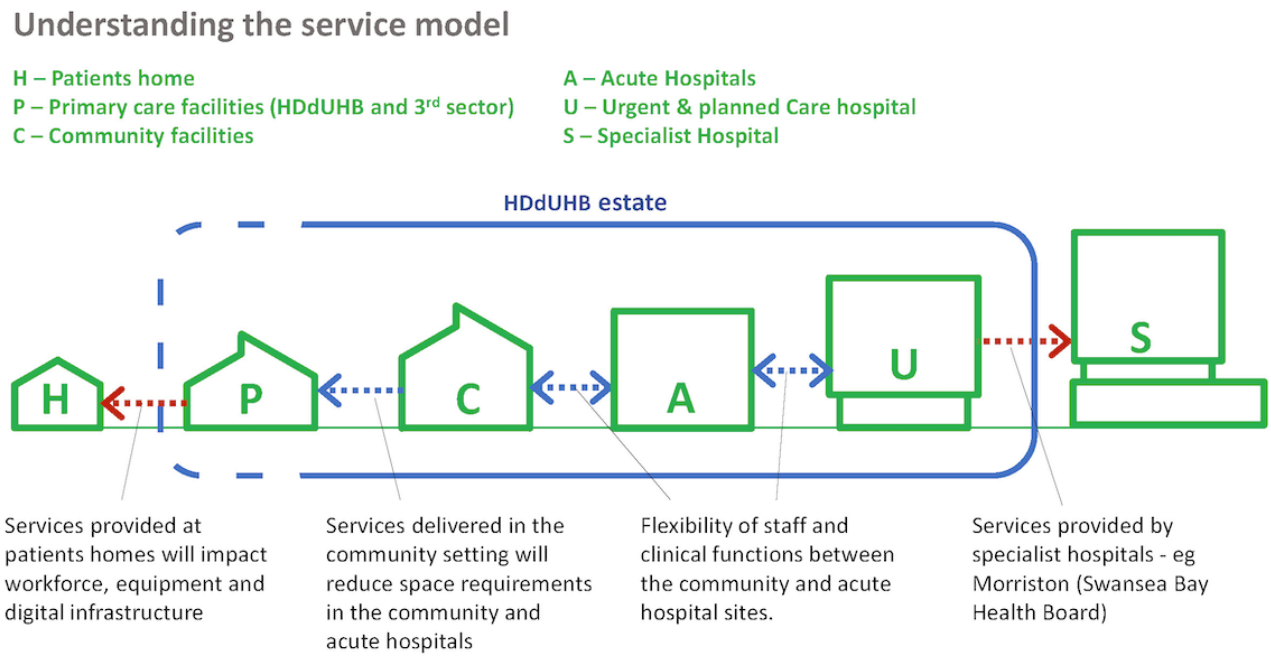


Figure 1: Proposed configuration of services (Image courtesy of BDP) For illustration only. The infrastructure assumptions in the AHMWW PBC include for developments in C, A and U

2.1 Urgent and Planned Care Hospital (New Site)

The Urgent and Planned Care site will be the main site for the network of hospitals covering urgent and planned care across the Health Board. It will offer a more centralised model for all adult and children services and include specialist mental health facilities.

The Health & Care Strategy assumed a model with 50% of patients in acute beds to have a maximum length of stay of 72 hours requiring services to be operational 24/7, including access to diagnostics. The PBC includes this scenario but also includes a 'likely' and 'maximum' efficiency scenarios which assumes a longer length of stay at the new hospital, increasing the bed base at this location and reducing the nurse and therapy managed beds at both Glangwili and Withybush Community Hospitals in order to manage clinical risk at these hospitals. Achievement of the aspiration in these scenarios will require transfer of patients from this site to the step-down beds at Glangwili, and Withybush Hospitals.

On occasions there will be a need to transfer patients from these sites to the acute site due to the level of clinical assessment and intervention required. There may also be a requirement to transfer more critical patients from Bronglais Hospital and Prince Philip Hospital as part of the network approach to delivering care.

Services to be provided from the Urgent and Planned Care Hospital include:

- Trauma Unit and Emergency Department;
- 24/7 access to acute specialties (medicine, surgery, obstetrics & gynaecology, paediatrics, diagnostics, mental health and learning disabilities);
- Critical Care (Levels 1, 2 and 3);
- 24/7 diagnostic support;
- Planned day case and inpatient operations and treatment;
- Cardiac catheter and pacing laboratory;
- Specialist outpatient services;
- Inpatient and limited outpatient therapies;
- Multi-professional health education facility;
- Research and innovation facilities, including Institute for Life Sciences.

The Health Board have expressed a requirement for a clear separation of urgent and planned care activity flows to both minimise the potential for elective work to be impacted at times of pressure and to provide resilience within the hospital should a pandemic response be required. As part of this Programme , further consideration is required within the Health Board and with the support of the Technical Team to determine whether this requires physically separate buildings, with connectivity to key departments (e.g. diagnostics and theatres), or for an alternative design solution to achieve the objective.

This brief has assumed there will be a single main entrance with maximum sharing of support facilities. This will need further review should the preferred option be for two physically separate buildings.

2.2 Bronglais General Hospital (Existing DGH site)

Bronglais General Hospital will build its reputation as an excellent rural provider of acute and planned care. It will continue to provide the current range of urgent, emergency and planned care services with more specialist cases transferred to the main Urgent and Planned Care Hospital (as well as other regional sites for critical care).

- 24/7 Emergency Department and Urgent Care Centre;
- 24/7 access to acute specialties
- 24/7 diagnostic support;
- Critical Care ;
- Planned major day case and inpatient operations and treatment;
- Day case elective facilities including endoscopy;
- Midwife led unit and low-risk obstetrics;
- Outpatient services including Chemotherapy
- Older Adult inpatient mental health beds.

2.3 Glangwili and Withybush Hospitals (Existing sites repurposed as community hospitals)

These sites will operate as local community hospitals. Beds will be therapy and nurse led, focusing on rehabilitation and less acute needs (step up from the community /step down from the acute hospital). There will be access to diagnostics and general outpatient clinics with more specialist assessments taking place at the Urgent and Planned Care Hospital.

- 24/7 GP led urgent care centre;
- Therapy and nurse led step up and step-down beds;
- Outpatient clinics and specialist ambulatory 'hot' clinics;
- Facilities for an identified range of day case procedures;
- Midwife led units;
- Access to diagnostic support (x-ray, ultrasound, mammography);
- Renal Dialysis and Chemotherapy.

2.4 Prince Philip General Hospital (Existing DGH site)

Prince Philip Hospital will operate as a local general hospital, supporting acute medical admissions. The hospital will require consultant-led overnight beds with diagnostic support and will act as a stabilisation and transfer hub for certain specialised conditions. There will be a greater medical presence on this site compared to Glangwili and Withybush Hospitals. There is also an ambition to build on existing local services that can thrive as centres of excellence (e.g. breast surgery).

- 24/7 GP led urgent care centre;
- 24/7 access for acute medicine supported by consultants and teams plus high dependency care capability;
- 24/7 diagnostic support;
- Critical Care ;
- Low risk day case surgery and endoscopy;
- Outpatient clinics and specialist ambulatory 'hot' clinics plus Chemotherapy;
- Facilities to offer midwife-led deliveries.

2.5 Community Hubs (New and / or Refurbished Sites)

Each of the seven integrated community networks will be supported by one or more health and well-being centres which will bring a number of people and services together in one place and also provide virtual links between the population and the community network. Multidisciplinary teams and the wider networks will wrap around individuals and families.

In addition to providing access to diagnostics and consultations, the service offering within the community network will also include community beds to prevent individuals from needing to go to hospital as well as to support timely discharge. This will include beds within the community hospitals as well as commissioned beds within nursing and residential homes and extra care supported living facilities as well as providing support and care to people in their own homes. These community hubs form an essential element of the whole system approach to delivering care.

Services anticipated to be present within the community hubs include:

- Outpatient clinics supported by diagnostic tests and scans, including x-rays;
- Treatment for minor illness and minor injury;
- Planned and preventative care for people living with long term conditions;
- Overnight stay for patients unable to remain at home but not requiring a hospital care (step-up care), rehabilitation after a stay in hospital (step-down care) and assisted living;
- Mental health advice and support;
- Advice and support on a range of health and wellbeing needs including information on preventing and treating illness.

3.0 High Level Functional Requirements

For each of the hospital sites, the key functional zones and any assumptions that have been made in relation to effective working or interface with other areas are described and are arranged as follows:

- Main Entrance Facilities;
- Emergency Portal;
- Ambulatory Centre;
- Inpatients Beds;
- Intervention Suites;

Functional areas where there is commonality for all sites are provided as single narratives arranged as follows:

- Mental Health;
- Administration, Education and Training;
- Clinical Support;
- Staff & Visitor Welfare;
- Facilities Management;
- External & Ancillary Accommodation;
- Third Party Operators / Partnership Enterprises.

The accompanying schedules of accommodation details the anticipated space allowances at departmental level, based on a number of assumptions which will be refined as the scheme moves to next stage business case.

At the next stage of detailed design development, the room-by-room detail will be progressed.

The following tables summarise the high-level functional requirements for the core clinical services.

Functional Units	Urgent / Planned Care Hospital	Bronglais	Prince Philip	Glangwili	Withybush
ED Rooms (inc MIU element)	20	12			
MIU Rooms			10	7	5
Acute Admission Beds	48	24	24		
Acute IP Beds	421	112	140		
Rehab / Step up and down beds				72	48
Critical Care	22	4	5	0	0
Neonatal	15	1	0	0	0
Day Case Trollies	26	12	9	7	10
Theatres (Inpatient)	13	2	0	0	0
Theatre (Interventional Radiology)	1	0	0	0	0
Theatres (Day Case)	6	3	2	0	0
Day Case (Procedures Room)	0	0	0	1	1
Endoscopy Suite	3	1	1	0	0
Cathether Lab	1	0	0	0	0
Obstetric Theatre	2	0	0	0	0
Delivery Suite	7	3	0	0	0
Midwifery Led Unit	0	0	1	3	3
X-Ray	4	2	2	2	2
Ultrasound	4	2	2	2	2
CT	3	1	1	0	0
MRI	2	1	1	0	0
Gamma Camera	1	0	0	0	0
Fluoroscopy	1	0	0	0	0
Interventional Radiology	1	0	0	0	0
Mammography	1	1	1	0	0
Generic Outpatient Rooms	10	7	18	13	17
Renal and Chemo	16	16	16	16	16
Cardiac, Pulmonary and Neurophysiology Diagnostics	10	2	2	2	2
Ante Natal	4	2	2	2	2
Nuclear Medicine	1	0	0	0	0
Rehabilitation (Therapies OP)	0	6	6	6	6
Breast Unit	0	0	8	0	0
Palliative Care			Ty Brynwyn		

Table 1: Clinical Service Functional Requirements (Likely Scenario)

Functional Units (Mental Health)	Urgent / Planned Care Hospital	Bronglais	Prince Philip	Glangwili	Withybush
Inpatient: Adults	37				
Inpatient: Older Adults	30	11			
Inpatient: Learning Disability	3				
Inpatient (Psychiatric Intensive Care)	8				
Impatient (Low Secure Male)	18				
Inpatient (CAMHS)	2				
Assessment / Day Facilities	4				
Section 136 Suite	3				

Table 2: Mental Health Functional Requirements

4.0 Design Assumptions

The following section has been written specifically for the new build Urgent and Planned Care site, but the principles will equally apply to all sites involving capital works.

4.1.1 Functional / Spatial Guidance

Welsh Health Building Notes (WHBNs) and Health Building Note (HBN) guidance as published by NHS Wales Shared Services Partnership is applicable to this development, refer to glossary of relevant documents (Section §[1]). This list will be reviewed at next stage business case.

4.1.2 Whole Hospital Flows

The patient experience shall be central to the development of the flows within the facility and the wider external environment. As a principle, journey length and complexity shall be minimised. To protect the privacy and dignity of individuals, who may be distressed or in a state of undress, in developing the design solution it is essential that the movement of patients, staff and goods is managed safely and efficiently maximising the separation of these flows both vertically and horizontally.

It is assumed that high footfall and patient volume departments / services will be located close to access points to avoid unnecessary journeys into the areas of the building, which support the high acuity care areas.

It is recognised that the balance of the management of flows and establishment of required adjacencies may require the use of vertical and horizontal flows. Should this be the case the design solution must include details on how the proposals deliver the required relationships.

4.1.3 Access

The number of access or egress points from the building should be minimised. All external entrances require draught lobbies and external canopies.

There should be a dedicated, single point of entry to the Emergency Department which must be highly visible with a dedicated route from the main road for emergency vehicles.

There should be direct entry to the maternity unit without passing through any other department.

Direct access to the mortuary will be required.

A service and delivery strategy for the site should be developed. A focused, central location for the receipt, distribution and collection of all goods whatever the source or destination is assumed.

[1] Section to be developed at OBC stage – list of current guidance included for reference.

4.1.4 Zonal Hubs

A zonal hub approach has been assumed within this brief and the corresponding schedule of accommodation. This identifies where FM, staff and visitor welfare need to be dedicated to an individual department or can be shared with other departments in an identified zone. At this stage, these are allowances based on a standard metric and final numbers will be dependent upon 'building geography' and agreed design, massing, flows and adjacencies.

The introduction of zonal hubs throughout the SoA for both Staff and Visitor Welfare and Facilities Management functions is key to maximising flexibility and efficiency by identifying facilities that are replicated but could be shared between units if provided in a central location and easily accessible to each area. This philosophy has been applied throughout the baseline schedule to ensure the overall provision of support facilities is both logically placed and appropriately quantified.

The diagram below illustrates the approach:

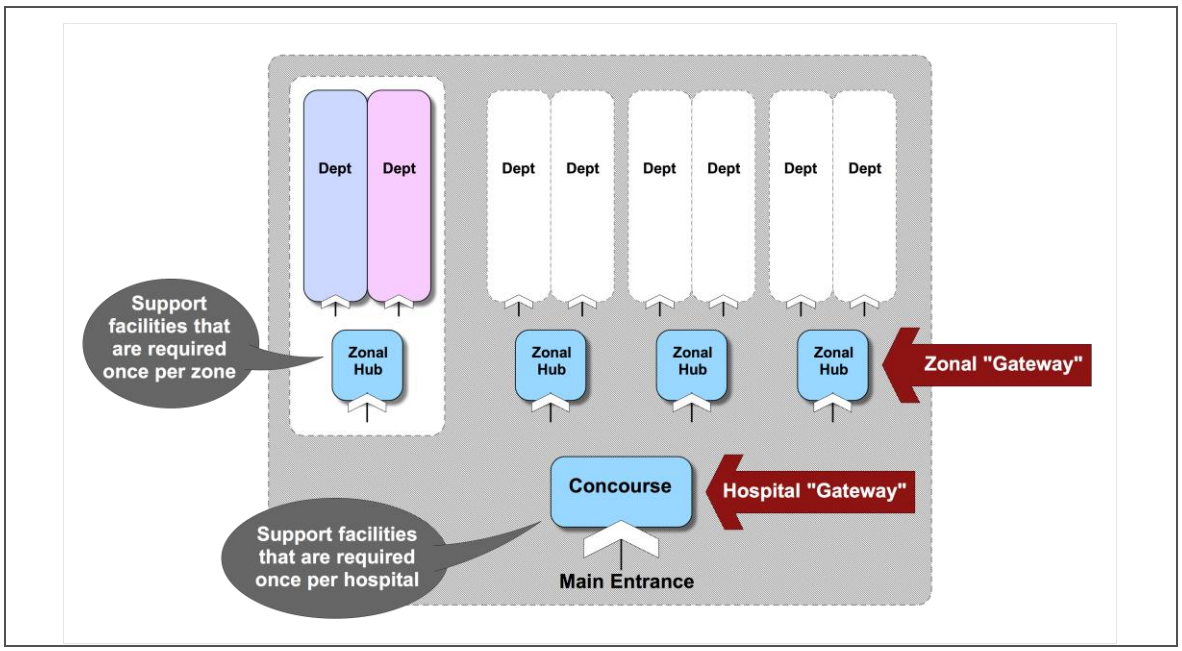


Figure 2: Zonal Hubs

4.1.5 Privacy and Dignity

It is imperative that a patient's privacy and dignity is not compromised by the physical design of the facilities. The decision to care for patients in mixed sex areas must be made solely on clinical need, not on the constraints of the environment. This issue is applicable to both children and younger people and transgender / gender neutral individuals in addition to the conventional male / female split. All inpatient areas have been assumed to be 100% single room, should any multi bedrooms be stipulated it should be assumed that these will only accommodate same sex patients.

The assumption is that support service logistics and routing will be segregated from patient and visitor routes wherever practical.

4.1.6 Accessibility and Inclusion

The needs of disabled people (both temporary and long-term) must be taken fully into account including, wheelchair users, frail people, those with poor mobility, those with dementia, those who are hearing or sight impaired and those with mental illness and / or learning disability. All facilities should comply with the Disability Discrimination Act 2005. Requirements shall be built into the design at the outset so that modifications such as ramps will not be required including access to any external amenity spaces. The design must anticipate the needs of users of the facilities and be sensitive to the needs of both adults and children and adolescents. Technologies for disabled people such as induction loops at entrances and reception areas in those areas where patients have access.

Accessible toilets must be provided at strategic locations to meet the requirements of "Part M of the Building Regulations". Changing Places rooms will be required strategically throughout the building(s).

4.1.7 Infection Prevention and Control

The use of design to assist the effective control of infection is essential. The design team attention is drawn to WHBN 00-09 Infection Control and HBN 00—09:2013. Of specific note is the expectation that:

- Wash hand basins and personal protective equipment (PPE) stations are required at the entrance to clinical areas, this should be at the departmental interface;
- Hand washing facilities should be provided within all areas in which clinical activity is undertaken, unless otherwise agreed with Infection Prevention Team for areas involving low physical contact.

The general space allocation and design assumptions are predicated on pre Covid-19 pandemic norms unless stipulated. It should be anticipated that additional measures may need to be integrated into the detailed design in response to updated Government guidance as and when identified.

4.1.8 Digital

The full scope of the digital requirement is under development within the Health Board and will be more fully developed at next stage business case. Digital solutions will play a major factor in supporting the transformation of services and the effective / sustainable running of the estate and these solutions will be fully explored at next stage business case.

4.1.9 Fire Safety

Any departure from HTM 05 Firecode must be supported by a full engineering appraisal and should not impose any operational restrictions or revenue costs upon the Health Board.

The design solution should address the conflicting need for unimpeded egress and the prevention of un-authorised access of doors the sole purpose of which is escape in the event of fire. A clear Fire Planning Strategy should be incorporated into the design.

4.1.10 Health and Safety

All accommodation will be designed to ensure that it complies with the relevant health and safety legislation and aims to eliminate or reduce risk to patients, staff and visitors.

4.1.11 Standardisation

It is assumed that maximum use of room standardisation will be adopted, maximising future flexibility.

5.0 Specific Exclusions

Specific exclusions within this brief include:

- Mechanical, Electrical and Plumbing Infrastructure (MEP);
- Building Infrastructure.

which will be determined by the Health Boards Estates Department and Technical Advisors. Allowances have been included within the Schedule of Accommodation.

6.0 Urgent and Planned Care Hospital

6.1 Main Entrance

There is no longer any dedicated UK NHS / Department of Health guidance on this subject. The space assumptions have therefore been based upon and benchmarked against UK and International good practice.

It is anticipated that there will be a single focused main entrance serving the hospital, which will be utilised by all patients, visitors and staff. The exceptions to this are listed below and described in the relevant section:

- Emergency Department;
- Maternity Unit;
- Emergency Mental Health / Learning Disability Inpatient Unit;
- Access to the Mortuary;
- Incoming & outgoing goods;
- Waste.

The diagram below illustrates the relationship of the main entrance to individual departments. It is assumed that digital wayfinding solutions will be in place to support effective visitor navigation. The zonal hub approach is described in section 4.1.4.

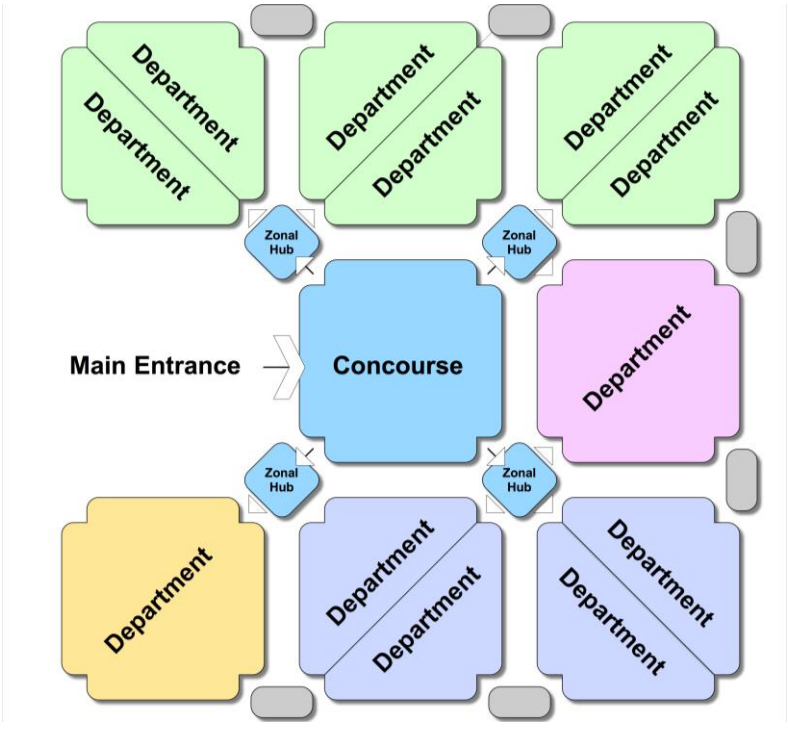


Figure 3: Main Entrance "Gateway" Concept

6.2 Emergency Portal

The role of the Emergency Portal is to receive, assess, stabilise and treat patients who present with a wide variety of conditions of varying urgency and complexity. The department will act as the gateway to the hospital system and will manage a wide range of complex conditions and a significant level of sub-specialty services.

A dedicated entrance to the Emergency Portal is required with good access from the main highway and parking and a dedicated 'blue light' route from the highway to the ambulance entrance. There should also be a close relationship to the main entrance of the hospital for easy wayfinding, after-hours access and egress, and parking / public transport.

The Emergency Portal comprises the following areas:

- Departmental Entrance – main entry point to the Emergency Department. Separate entrances for ambulant patients and ambulances are required with segregation of children at the point of entry;
- Emergency Department:
  - Children's treatment area;
  - Adult treatment area (majors area);
  - Resuscitation area with separate paediatric facilities;
  - Mental health area;
  - Short stay observation area / Clinical Decisions Unit;
- Admissions Unit.

High level functional content supporting the departmental space allowance is shown below:

Area	Functional Content
ED	
Assessment / Treatment Rooms	16
Resus (Adult)	3
Resus (Child)	1
Clinical Decisions Unit	6
Acute Admissions	
Beds	48

Table 3: Emergency Portal Functional Content

Based on learning from Covid-19, additional accommodation has been included to support effective separation of flows at the point of entry. Single cubicles have also been assumed.

A conceptual diagram of the whole hospital departmental adjacencies is illustrated below.

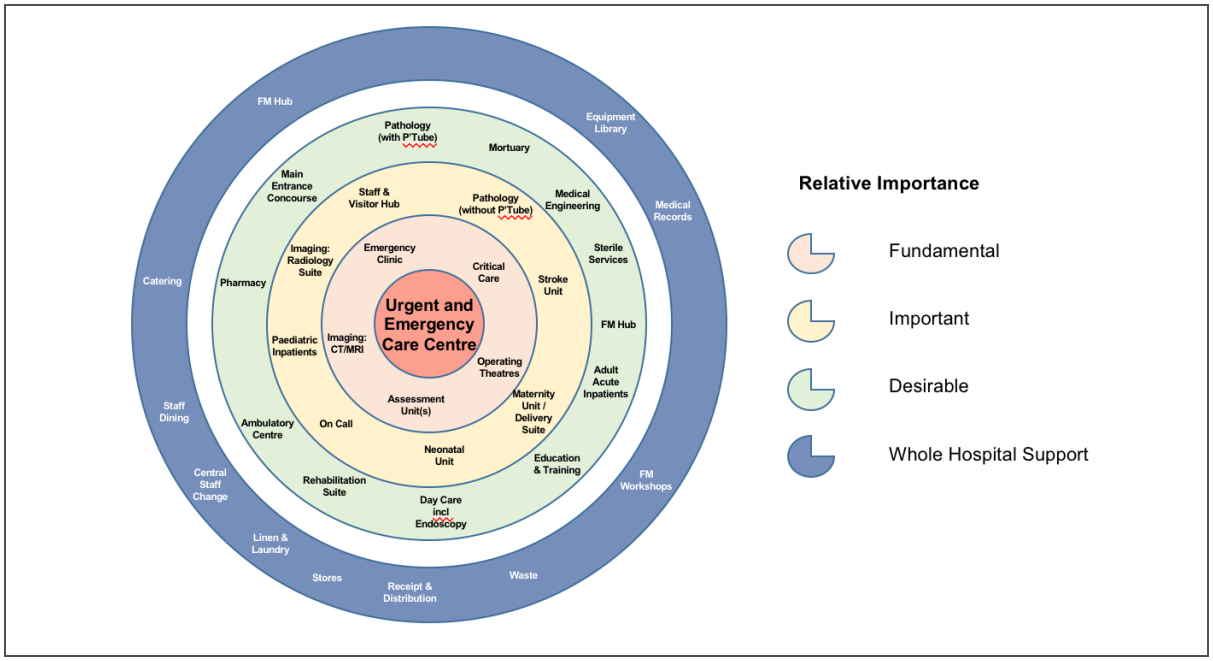


Figure 4: Urgent and Emergency Care Centre Departmental Adjacencies

6.3 Ambulatory Centre

Ambulatory care is medical care provided on an outpatient basis and patients will therefore not be staying overnight. It can include consultation, diagnosis, observation, intervention or treatment and rehabilitation. The higher footfall to these facilities requires them to be easily accessible from the main entrance and concourse. The specific services planned for this hospital include:

General Outpatients	Renal Dialysis
Chemotherapy	Imaging
Cardiac, pulmonary and neurophysiology diagnostics	Ante Natal
Medical Illustration	Clinical Trials Suite
Nuclear Medicine	

6.4 Inpatient Accommodation

The function of the inpatient beds is to provide suitable accommodation for the diagnosis, care and treatment of inpatients by multidisciplinary teams. Inpatient beds will be organised into generic bed units (wards) that are split according to speciality and type.

A total of **421 inpatient beds** are required, arranged in generic wards of 24 beds (**18 wards**), with beds clustered into 3 nursing units of 8 beds to allow for effective management of the ward. The inpatient areas provide for 100% single rooms with ensuite shower rooms.

Each nursing cluster will include for an isolation rooms capable of both positive and negative pressure to allow for appropriate isolation of patients (i.e. total of 3 isolation rooms per ward).

Each ward includes for a 6 place sitting room (to support dining / social area). This is particularly important in environments with 100% single rooms to encourage patients to exercise and socialise, both of which are proven to aid recovery.

They majority of inpatient therapy will be undertaken at the bedside, supplemented with the inclusion of a small activity area (neuro gym) within the zonal hubs to support inpatient therapy.

All inpatient wards will have direct access to adjacent FM and Staff and Visitor Welfare Hubs. These will be either dedicated or shared facilities.

The location of wards needs to ensure privacy, particularly at night. None of the wards should have ground floor locations unless there is a specific need, and all bedrooms and patient access areas should have access to daylight and views outside.

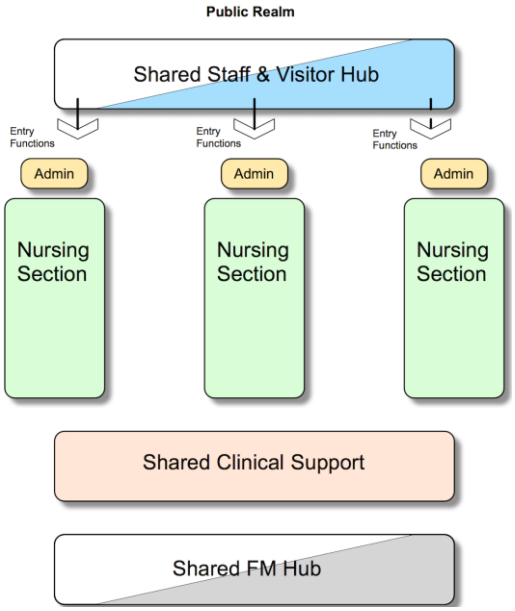


Figure 5: Ward and Shared Zonal Hub Concept

6.4.1 Inpatient Critical Care Beds

Critical Care is dedicated to the management and monitoring of patients with life threatening conditions and provides a higher level of care than a generic inpatient ward can provide. Provision for both Level 2 and Level 3 patients is required. Provision for **22 beds** has been included within a single ward.

Critical care beds will be provided in 8 bed nursing units grouped in multiples of three to form a ward. (i.e. 24 beds). These are 100% single rooms with 2 isolation room per nursing unit (i.e. 6 per ward).

Support accommodation is provided within individual nursing units, but each ward also benefits from access to facilities shared between wards in the hubs, including visitor welfare, staff welfare and facilities management support and storage. Relatives overnight stay bedrooms and rest areas are also included.

6.4.2 Neo Natal Unit (Including transitional care)

The hospital will provide Level 1 (Neonatal Special Care) and Level 2 (Neonatal High Dependency Care) within the Neonatal Unit. In addition, stabilisation for babies prior to transfer to a Level 3 (Neonatal Intensive Care) at another hospital will be undertaken. Capacity for **15 cots** has been included which includes an allowance for 4 transitional care places within a single ward.

6.5 Intervention Suites

The intervention suite will contain theatres and associated support accommodation for all specialties to maximise future flexibility. Good access from inpatient wards is required and there should be direct access to the emergency theatres from the Emergency Department.

Allowance for the following capacity has been included:

Theatre Type	Quantum
Inpatient Theatres (Elective and Emergency)	13
Interventional Radiology Suite	1
Day Case Theatre	6
Endoscopy Suite	3
Day Case Trollies	26
Obstetric Theatre	2

The operating theatre suite comprises a mix of standard and clean air theatres. A number of theatres will be designated for Emergencies and have the potential to be in use 24 hours.

A hybrid Interventional Radiology Suite has been included to allow for a wide range of procedures, some of which may be highly complex and specialised and across a range of specialties. The suite will be capable of functioning as either a conventional operating theatre or as a radiology facility allowing for intra and post-operative imaging and interventions.

6.6 Women's and Children's Services

Women's and Children's services on site include both inpatients and outpatients for Paediatrics, Obstetrics and Gynaecology.

- Outpatient accommodation;
- Ante Natal and Post Natal Inpatients;
- Obstetric delivery suite – **7 delivery suites**;
- Obstetric theatres – **2**;
- Obstetric Higher Dependency Unit – **6 bedded** unit;
- Neonatal Unit (Including Transitional Care) – **15 cots** with an additional allowance for **4 transitional care places**.

7.0 Bronglais General Hospital

7.1 Main Entrance Facilities

There is no longer any dedicated UK NHS / Department of Health guidance on this subject. This Functional Brief and associated schedules of accommodation have been based upon and benchmarked against UK and International good practice.

It is anticipated that there will be a single focused main entrance serving the hospital, which will be utilised by all patients, visitors and staff. The exceptions to this are listed below and described in the relevant section:

- Urgent Care Centre;
- Birthing Suite;
- Access to the Mortuary;
- Incoming & outgoing goods;
- Waste.

The diagram below illustrates the relationship of the main entrance to individual departments. It is assumed that digital wayfinding solutions will be in place to support effective visitor navigation.

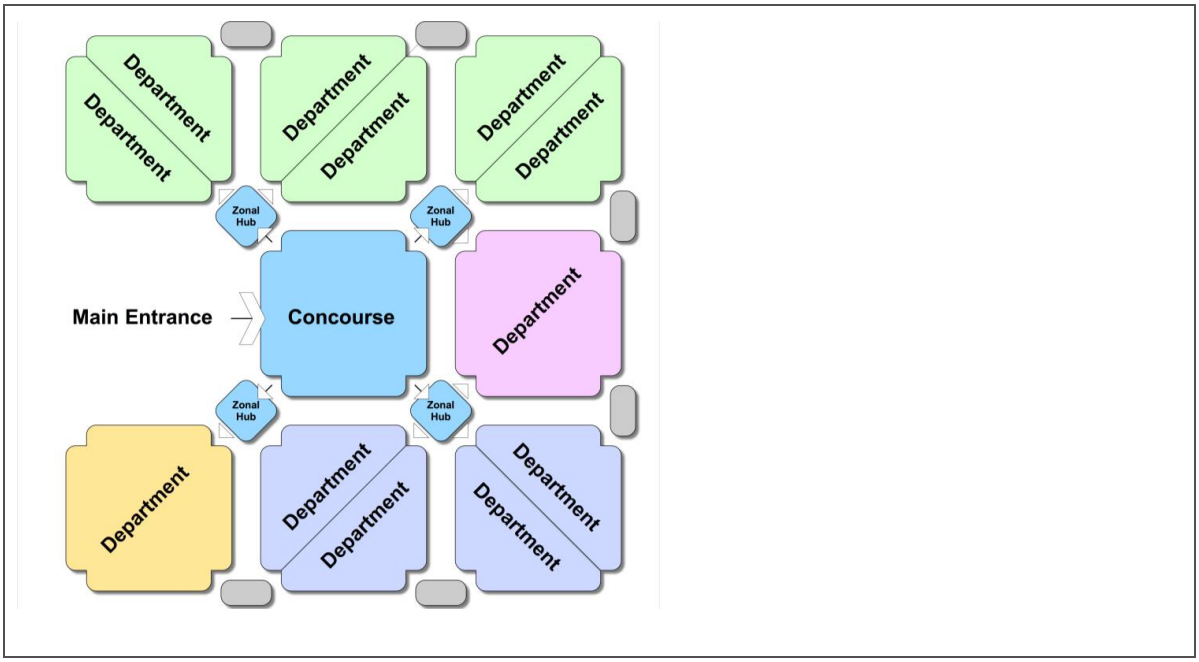


Figure 6: Main Entrance "Gateway" Functions

7.2 Emergency Portal

The role of the Emergency Portal is to receive, assess, stabilise and treat patients who present with a wide variety of conditions of varying urgency and complexity. The department will act as the gateway to the hospital system and will manage a wide range of complex conditions and a significant level of sub-specialty services.

It is recognised that there has been recent investment into the department and that existing functionality may be retained as part of the site master-planning solution (refurbishment assumed).

The Emergency Portal comprises the following areas:

- Departmental Entrance – main entry point to the Emergency Department. Separate entrances for ambulant patients and ambulances are required with segregation of children at the point of entry;
- Urgent Care Centre
- Emergency Department:
  - Children's treatment area;
  - Adult treatment area (majors area);
  - Resuscitation area with separate paediatric facilities;
  - Mental health area;
  - Short stay observation area / Clinical Decisions Unit;
- Admissions Unit – assessment facilities for patients requiring admission to the hospital (via Emergency Department or referred from General Practitioners).

High level functional content supporting the departmental space allowance is shown below:

Area	Functional Content
ED	
Assessment / Treatment Rooms	9
Resus (Adult)	2
Resus (Child)	1
Acute Admissions	
Beds	24

Table 4: Emergency Portal Functional Content

Based on learning from Covid-19, additional accommodation has been included to support effective separation of flows at the point of entry. Single cubicles have also been assumed.

7.3 Ambulatory Centre

Ambulatory care is medical care provided on an outpatient basis and patients will therefore not be staying overnight. It can include consultation, diagnosis, observation, intervention or treatment and rehabilitation. The higher footfall to these facilities requires them to be easily accessible from the main entrance and concourse. The specific services planned for this hospital include:

General Outpatients	Renal Dialysis
Chemotherapy	Imaging
Cardiac, pulmonary and neurophysiology diagnostics	Ante Natal
Clinical Trials Suite	Therapies (Rehabilitation)

7.4 Inpatient Accommodation

The function of the inpatient beds is to provide suitable accommodation for the diagnosis, care and treatment of inpatients by multidisciplinary teams. Inpatient beds will be organised into generic bed units (wards) that are split according to speciality and type.

A total of **112 inpatient beds** are required, ideally arranged in generic wards of 24 beds (**5 wards**), with beds clustered into 2 nursing units of 12 beds to allow for effective management of the ward. The inpatient areas provide for a range of between 50%-70%single rooms with ensuite shower rooms.

Each nursing cluster will include for an isolation room capable of both positive and negative pressure to allow for appropriate isolation of patients (i.e. total of 2 isolation rooms per ward).

They majority of inpatient therapy will be undertaken at the bedside, supplemented with the inclusion of a small activity area (neuro gym) within the zonal hubs to support inpatient therapy.

All inpatient wards will have direct access to adjacent FM and Staff and Visitor Welfare Hubs. These will be either dedicated or shared facilities.

The location of wards needs to ensure privacy, particularly at night. None of the wards should have ground floor locations unless there is a specific need, and all bedrooms and patient access areas should have access to daylight and views outside.

7.4.1 Inpatient Critical Care Beds

Critical Care is dedicated to the management and monitoring of patients with life threatening conditions and provides a higher level of care than a generic inpatient ward can provide. Provision for both Level 2 and Level 3 patients is required.

Provision for **4 beds** has been included as a dedicated unit within an inpatient ward.

Critical care beds will be provided as 100% single rooms and staff touchdown bases for each bed. Relatives overnight stay bedroom and rest area is also included.

7.4.2 Neo Natal Unit (Including transitional care)

There is no requirement for a neo-natal unit – space for a stabilisation cot has been provided.

7.5 Intervention Suites

The intervention suite will contain theatres and associated support accommodation for all specialties to maximise future flexibility. Good access from inpatient wards is required and there should be direct access to the emergency theatres from the Emergency Department.

Allowance for the following capacity has been included:

Theatre Type	Quantum
Inpatient Theatres (Elective and Emergency)	2
Day Case Theatre	3
Endoscopy Suite	1
Day Case Trollies	12
Delivery Suite	3

7.6 Obstetrics

Obstetric accommodation on site includes:

- Outpatient accommodation
- Ante Natal and Post Natal Inpatients;
- Obstetric delivery suite – **3 delivery suites**;
- Neonatal Unit – **1 stabilisation and transfer cot.**

8.0 Prince Philip General Hospital

8.1 Main Entrance Facilities

There is no longer any dedicated UK NHS / Department of Health guidance on this subject. This Functional Brief and associated schedules of accommodation have been based upon and benchmarked against UK and International good practice.

It is anticipated that there will be a single focused main entrance serving the hospital, which will be utilised by all patients, visitors and staff. The exceptions to this are listed below and described in the relevant section:

- Urgent Care Centre;
- Birthing Suite;
- Access to the Mortuary;
- Incoming & outgoing goods;
- Waste.

The diagram below illustrates the relationship of the main entrance to individual departments. It is assumed that digital wayfinding solutions will be in place to support effective visitor navigation.

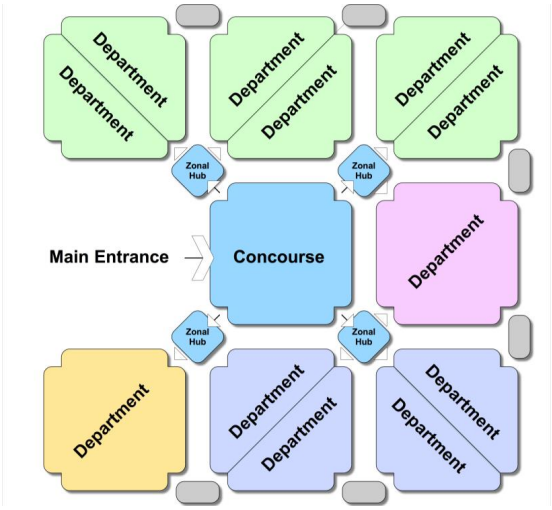


Figure 7: Main Entrance "Gateway" Functions

8.2 Emergency Portal

8.2.1 (Urgent Care Centre)

The role of the Urgent Care Centre (UCC) is to assess and treat patients who present with a wide variety of minor illness and minor injuries. The department will aim to discharge the majority of patients with only very small numbers of patients requiring an admission for further investigation. There should be a close relationship to the main entrance of the hospital for easy wayfinding, after-hours access and egress, and parking / public transport. Co-location with imaging is required.

Based on learning from Covid-19, additional accommodation has been included to support effective separation of flows at the point of entry and isolation facilities will be included to enable segregation of potentially infectious patients.

8.2.2 Admissions Unit

Admissions units are required for patients referred to specialties for assessment and investigations and potentially requiring admission to the hospital. Accommodation is anticipated to include both chair / trolley and bed areas and should be based on a generic ward to support future flexibility and ensuring appropriate access to patient, visitor and staff welfare facilities. At Programme Business Case Stage, provision for one ward (**24 beds**) has been allowed.

8.3 Ambulatory Centre

Ambulatory care is medical care provided on an outpatient basis and patients will therefore not be staying overnight. It can include consultation, diagnosis, observation, intervention or treatment and rehabilitation. The higher footfall to these facilities requires them to be easily accessible from the main entrance and concourse. The specific services planned for this hospital include:

General Outpatients	Ante Natal
Chemotherapy	Imaging
Cardiac, pulmonary and neurophysiology diagnostics	Breast Unit
Clinical Trials Suite	Rehabilitation (Therapies)

8.4 Inpatient Accommodation

The function of the inpatient beds is to provide suitable accommodation for the diagnosis, care and treatment of inpatients by multidisciplinary teams. Inpatient beds will be organised into generic bed units (wards) that are split according to speciality and type.

A total of **140 inpatient beds** are required, arranged in generic wards of 24 beds (**6 wards**), with beds clustered into 2 nursing units of 12 beds to allow for effective management of the ward. The inpatient areas provide for 66% single rooms (8 single rooms) with ensuite shower rooms and 1 x four bedded ensuite unit.

Each nursing cluster will include for an isolation rooms capable of both positive and negative pressure to allow for appropriate isolation of patients (i.e. total of 2 isolation rooms per ward).

They majority of inpatient therapy will be undertaken at the bedside, supplemented with the inclusion of a small activity area (neuro gym) within the zonal hubs to support inpatient therapy.

All inpatient wards will have direct access to adjacent FM and Staff and Visitor Welfare Hubs. These will be either dedicated or shared facilities.

The location of wards needs to ensure privacy, particularly at night. None of the wards should have ground floor locations unless there is a specific need, and all bedrooms and patient access areas should have access to daylight and views outside.

8.4.1 Inpatient Critical Care Beds

Critical Care is dedicated to the management and monitoring of patients with life threatening conditions and provides a higher level of care than a generic inpatient ward can provide. Provision for both Level 2 and Level 3 patients is required.

Provision for **5 beds** has been included as a dedicated unit within an inpatient ward. Critical care beds will be provided as 100% single rooms and staff touchdown bases for each bed. Relatives overnight stay bedroom and rest area is also included.

8.4.2 Neo Natal Unit (Including transitional care)

There is no requirement for a neo-natal unit.

8.5 Intervention Suites

The day case unit will support patients attending for an interventional procedure who are not anticipated to require an overnight stay.

The unit will need to draw upon other hospital departments for support services but there are no critical connections that demand that it is located immediately adjacent to any of them, but short logistical links will aid efficiency. There should be easy access to the unit from the main entrance.

The Day Case unit will have:

- **2 Theatres;**
- **1 Endoscopy Suite;**
- **9 Trollies.**

8.6 Birthing Suite

A single room Midwifery-Led Unit / Birthing Suite will be provided for low risk deliveries. This unit will only be used by a community midwife when the mother wishes to deliver as close to home as possible, but their home conditions are not conducive for a home delivery. The unit will provide **one LDRP room** plus clinical and staff support.

9.0 Glangwili and Withybush Community Hospitals

9.1 Main Entrance Facilities

It is anticipated that there will be a single focused main entrance serving the hospital, which will be utilised by all patients, visitors and staff. The exceptions to this are listed below and described in the relevant section:

- Urgent Care Centre;
- Midwifery Led Unit;
- Access to the Mortuary;
- Incoming & outgoing goods;
- Waste.

9.1.1 Emergency Portal (Urgent Care Centre)

The role of the Urgent Care Centre (UCC) is to assess and treat patients who present with a wide variety of minor illness and minor injuries. The department will aim to discharge the majority of patients with only very small numbers of patients requiring an admission for further investigation. There should be a close relationship to the main entrance of the hospital for easy wayfinding, after-hours access and egress, and parking / public transport. Co-location with imaging is required.

Based on learning from Covid-19, additional accommodation has been included to support effective separation of flows at the point of entry and isolation facilities will be included to enable segregation of potentially infectious patients.

9.1.2 Admissions Unit

There is no requirement for an acute admissions unit.

9.2 Ambulatory Centre

Ambulatory care is medical care provided on an outpatient or day case basis and patients will therefore not be staying overnight. It can include consultation, diagnosis, observation, intervention or treatment and rehabilitation. The higher footfall to these facilities requires them to be easily accessible from the main entrance and concourse. The specific services planned for these hospitals include:

- Outpatients (including Ante-Natal Outpatients);
- Pre-operative assessment;
- Renal Dialysis;
- Chemotherapy;
- Imaging;
- Rehabilitation (Therapies).

9.3 Inpatient Accommodation

The function of the inpatient beds is to provide suitable accommodation for the care and treatment of patients requiring rehabilitation and will be under the care of a team of therapists and nurses.

Inpatient beds will be organised into generic wards of 24 beds with beds clustered into 2 nursing units of 12 beds to allow for effective management of the ward. The inpatient areas provide for 66% single rooms (8 single rooms) with ensuite shower rooms and 1 x four bedded ensuite unit.

Each ward has provision for isolation rooms capable of both positive and negative pressure to allow for appropriate isolation of patients (a total of 2 isolation rooms per ward).

Each ward includes for a 6 place sitting room (to support dining / social area). This is particularly important to encourage patients to exercise and socialise, both of which are proven to aid recovery.

They majority of inpatient therapy will be undertaken at the bedside, supplemented with the inclusion of a small activity area (neuro gym) within the zonal hubs to support inpatient therapy.

All inpatient wards will have direct access to adjacent FM and Staff and Visitor Welfare Hubs. These will be either dedicated or shared facilities.

The location of wards needs to ensure privacy, particularly at night. None of the wards should have ground floor locations unless there is a specific need, and all bedrooms should have access to daylight and views outside.

9.3.1 Specialty Inpatient Beds

There is no requirement for speciality inpatient beds.

9.3.2 Inpatient Critical Care Beds

There is no requirement for critical care beds.

9.3.3 Neo Natal Unit (Including transitional care)

There is no requirement for neo-natal cots.

9.4 Intervention Suites

- There is no requirement for general operating theatres or for interventional imaging.
- There is a requirement for Day Case Theatres in the minimum efficiency option.
- There is a requirement for an Endoscopy Suite in the minimum efficiency option.

9.4.1 Day Case Procedure Suite

A Day Case Procedure Suite will be provided to support low risk interventional procedures undertaken under local anaesthetic. The suite will require a reception / waiting area, sanitary and changing facilities with personal lockers for patient use. A range of trolley bays, reclining chairs, and comfortable seating for patient use pre and post procedure will be provided.

9.4.2 Obstetric Theatres

There is no requirement for Obstetric Theatres.

9.5 Midwifery Led Unit

A Midwifery-Led Unit will be provided for low-risk deliveries. The unit will provide **3 LDRP** rooms (capable of supporting labour, delivery, recovery, postpartum).

10.0 Mental Health and Learning Disabilities

A separate Programme Business Case focusing on mental health services is being progressed within the HDUHB and therefore the future configuration of services within community-based facilities is subject to further discussion.

Community service provision will include the development of Community Mental Health Centres with "hospitality beds" enabling service users to access support and treatment in a homely environment close to their home.

Currently there are mental health facilities on the existing hospital sites and further development of the model will determine whether the new services should also be within the site boundary or elsewhere within the local community.

It is currently assumed that the mental health facilities at Cwm Seren, St David's Hospital in Carmarthen will form part of the development on the urgent and planned care hospital site.

The mental health facilities on the Urgent and Planned Care Hospital site should be provided in a dedicated unit, ideally with connectivity to the main hospital site. This unit will be an integral part of the overall mental health service offering, providing more specialist input than will be available at the networked sites and within other community facilities.

Accommodation will include inpatient beds for adult and older mental health patients including psychiatric intensive care and a male low secure unit and provision for learning disability patients. A co-located clinic suite and day assessment facility is required. Provision for Section 136 suites is included.

Functional Content	Quantum
Urgent and Planned Care Site	
Inpatient Beds: Adults	37
Inpatient Beds: Older Adults	30
Inpatient Beds: Learning Disability	3
Inpatient Beds: Adults Psychiatric Intensive Care	8
Inpatient Beds: Male Low Secure Unit	18
Inpatient Beds: Child and Adolescent Mental Health	2

Section 136 Suite	3
Assessment / Day Facilities	4
Bronglais Hospital;	
Inpatient Beds: Older Adults	11

11.0 Clinical Support Services

This section describes the proposed clinical support functions and their relationships within the whole hospital setting. Given the stage of the project a number of high-level assumptions have been made which will need testing as the scheme progresses. The table below indicates where it is assumed a network approach will be taken.

	Urgent and Planned Care Site Provision	Local Site Provision
Pharmacy	Main Service Base	Local dispensing and pharmacy store
Sterile Services	Main Service Base	Local decontamination provision for endoscopes
Pathology (inc Mortuary)	Main Service Base	Hot lab provision
Medical Records	Assume majority digital – base for Electronic Patient Record Team	Allowance for hard record storage pre digitisation
Clinical Engineering	Main Service Base	Allowance for small support function
Equipment Resource Centre	Main Service Base	Local on-site provision – sized appropriately for on-site service provision
IM&T	Main Service Base	Local IT training facilities

11.1.1 On Call Suites

Provision has been made for an en-suite room within the staff welfare zonal hubs to enable quick access to the clinical areas requiring support. It is assumed that these rooms will be multi-purpose enabling staff to make use of rest facilities or as meeting space away from the clinical unit.

11.1.2 Pharmacy

The Central Pharmacy will be located on the Urgent and Planned Care site. There is a requirement to distribute medications across the network of hospitals and good logistical access for vehicles is therefore required.

The network of hospitals will require local provision for medication storage and dispensing for the inpatient and day procedure areas.

11.1.3 Sterile Services

The working assumption is that there will be a central facility located on the Urgent and Planned Care site, also serving the wider network of hospitals.

A modest on-site decontamination facility is included on each of the network sites.

11.1.4 Pathology

The working assumption is that there will be a central pathology department located on the Urgent and Planned Care site, which takes account of regional plans with Swansea Bay UHB for separate jointly managed Cellular Pathology and Immunology Services. The main laboratory will be supported by satellite near patient testing facilities in high throughput areas for example: Emergency Department. A comprehensive pneumatic tube system will be used for sending and receiving tests supported by scheduled manual collections as necessary.

This service can be a separate building providing it is linked by pneumatic tube and can be easily accessed for manual deliveries of samples.

Provision on each of the network sites includes blood storage and near patient testing facilities. It is noted that there has been recent investment into the pathology department at Bronglais Hospital which should be considered by the Technical Team.

11.1.5 Mortuary

The Mortuary should be located in a discrete location with external access for vehicles.

11.1.6 Medical Records

Although significant progress towards digitalisation/Electronic Patient Records is assumed, some modest storage capacity will continue to be required. Additional space assumptions have been made for IM&T to support the all-digital approach.

11.1.7 Clinical (Medical) Engineering

A notional space allowance has been included within the schedule to support provision of a Clinical Engineering base which should be accommodated within the main site building or have a close adjacency.

11.1.8 Equipment Resource Centre

A central storage point for clinical equipment that can be periodically loaned out to wards / department as required.

11.1.9 Information Management & Technology (IM&T)

At this stage an indicative space allowance has been included within the SOA for all sites including a space allowance to support hard copy medical records awaiting data migration. It is assumed that any archiving facilities will be located off site. Space provision to support data migration and a dedicated Electronic Patient Record Team has been included on the urgent and planned care site.

12.0 Administration and Education

12.1.1 Administration

A notional space allowance only has been included for both corporate and clinical administrative facilities at this stage.

It is assumed that administration can be provided as a centralised function on the urgent and planned care hospital site. For all other sites an increase of administrative bases compared to the current provision is not assumed and further consideration with the technical team is required to determine potential configurations of administrative space. For example it should **not** be assumed that a centralised administration solution is required.

12.1.2 Education and Training

A notional space allowance has been included for education and training facilities at this stage.

It is assumed that there will be a requirement for classroom and seminar type accommodation including lecture theatre / conference style rooms. A clinical skills lab is also assumed to be required.

This accommodation can either be provided as a standalone facility on the hospital site or as an integrated part of the hospital. Dedicated access without the need to pass through any clinical department is required.

13.0 Staff and Visitor Welfare

Support facilities for staff and visitors are required throughout the hospital. Provision has been standardised and grouped into hubs to support either staff or visitors. The hub concept is shown in section 4.1.4 .

14.0 Facilities Management

Design should allow for the separation of goods route (and lifts) from public routes (and lifts). There should be appropriate areas to receive or hold supplies / goods / waste as they arrive or are collected from individual departments / areas. As the scheme progresses the requirement for Automated Guided Vehicles will be determined and there should be consideration to corridor widths as well as the separation of goods flows from public and patient access routes.

14.1.1 FM Hub (Satellite Support)

The FM Hubs will provide access to the following storage and FM facilities:

- Separate storage for bulk supplies and equipment;
- Disposal hold to enable segregated waste storage, dirty linen and dirty returns;
- Domestic services room for storage of cleaning equipment and materials;
- Food service kitchen or pantry to support serving of patient meals, snacks and beverages within wards/departments also serving staff meetings etc.;
- Pneumatic tube station for receipt/delivery of pharmacy products and pathology specimens (where needed).

14.1.2 Kitchen Catering

The current working assumption for this site is that a central kitchen will be required with good kitchen provision to all ward areas. This facility will also support staff dining.

14.1.3 Linen and Laundry

It is assumed that linen and laundry services will be provided by an All Wales service or other third party from an off-site location. Provision will therefore be required for the receipt, storage and distribution of linen throughout the hospital.

14.1.4 Waste

Waste facilities within the hospital are provided on the basis of a single collection point in the hubs (disposal hold) for all waste streams from where it can be removed on a regular basis to the centralised waste area to avoid any build up.

The centralised waste handling area will have a dedicated route out of the building providing direct access to a secure compound for the holding of waste containers. This will be directly connected to the FM vehicular access road and separate to the loading bay within R&D to minimise any potential for cross contamination with clean goods being delivered.

14.1.5 FM Workshops

All hospital sites will include the workshops and stores required to support the estates maintenance function. These should be discretely located, away from public and patient view.

14.1.6 Stores (Receipt & Distribution)

The Hospital requires a single R&D point located at ground away from clinical activity, with direct access to main service corridors, FM Support Hubs and departments.

15.0 External / Ancillary Accommodation

15.1.1 Helipad

It is assumed that helipad provision is only required on the urgent and planned care hospital site. This should be conveniently located to enable rapid access to the Emergency Department and with minimal impact on the general functioning of the hospital.

15.1.2 Staff Residences

It is anticipated that provision for staff residences will be required on the hospital site. These facilities should enable self-catering accommodation for single staff members and some limited numbers of couple / family accommodation. A notional space allowance has been included within the SOA with further details required as the project progresses.

16.0 Schedule of Accommodation

16.1 Departmental Schedules of Accommodation

Baseline departmental summaries have been produced to support initial concept design and to underpin the capital costing exercise. They are indicative only with further development of clinical models and underpinning assumptions anticipated as the project progresses.

16.1.1 Method of Measurement

The summary SoA total is in the form of a Gross Internal Floor Area (GIFA) i.e. the overall area excludes the external walls.

16.1.1.1 Building

The Departmental Circulation is currently a percentage allocation and not measured. This covers in addition to departmental circulation the internal walls and local IPS. The interdepartmental Communication (primary circulation, atria stairs and lifts) is currently a percentage allocation and not measured. The external wall is currently excluded from these schedules.

16.1.1.2 MEP

The following are not reported in the overall area summary:

- External Plant Facilities;
- Underground Storage tanks;
- Subterranean tunnel.

17.0 Glossary of Relevant Documents

Reference	Title
WHBN 00-01	General design guidance for health care buildings
WHBN 00-02	Revision 1 2016 Sanitary space
WHBN 00-03	Clinical and clinical support spaces
WHBN 00-04	Circulation and communication spaces
WHBN 00-07	Planning for a resilient healthcare estate
WHBN 00-08	Estate code Wales edition
HBN 00 08	Estatecode supplement Wales edition
WHBN 00-09	Infection control in the built environment
WHBN 00-10	Part A Flooring
	Part B Walls and ceilings
	Part C Sanitary assemblies
	Part D Windows and associated hardware
WHBN 01-01	Cardiac Facilities
WHBN 02-01	Cancer treatment facilities
WHBN 03-01	Adult acute mental health units 2016
WHBN 03-02	Facilities for child and adolescent mental health services
WHBN 03 02	Quality of life checklist.pdf
WHBN 04-01	Adult in-patient facilities.pdf
	Supplement 1 Isolation facilities for infectious patients in acute settings
	Supplement 2 Negative Pressure Suites
WHBN 04-02	Critical Care Units
WHBN 07-01	Renal care Satellite dialysis unit
WHBN 07-02	Renal care Main renal unit
HBN 08-02	Dementia friendly health and social care environments
WHBN 09-02	Maternity services
WHBN 09-03	Neonatal Units
HBN 06	Facilities for diagnostic imaging and interventional radiology
HBN 08	Facilities for rehabilitation services 2004ed
HBN 10 02	Day Surgery Facilities.pdf
HBN 12	Out-patients department.pdf
	Out-patients department Supplement 2 Oral surgery, orthodontics, restorative dentistry
	Supplement A Sexual and reproductive health clinics
HBN 13	Sterile Services department 2004
	Sterile Services department Supplement 1 Ethylene oxide sterilization section

WHBN 14-01	Pharmacy and radiopharmacy facilities
HBN 14-02	Medicines Storage in Clinical Areas
HBN 15	Facilities for pathology services
WHBN 15-01	Accident and Emergency Departments Planning and Design Guidance
HBN 15-02	Facilities for Same Day Emergency/ Ambulatory Care
HBN 20	Facilities for mortuary and post-mortem room services
HBN 23	Hospital accommodation for children and young people
HBN 26	Facilities for surgical procedures Volume 1
HBN 37	In-patient facilities for older people
HBN 52	Accommodation for Day Care Volume 2 Endoscopy Unit
	Accommodation for Day Care Volume 3 Medical investigation and treatment unit