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Sandwell and West Birmingham Hospitals NHS Trust

Report Title	Clinical Model in Midland Metropolitan University Hospital		
Sponsoring Executive	Rachel Barlow; Director of System Transformation		
Report Author	Rachel Barlow; Director of System Transformation		
Meeting	Trust Board (Public)	**Date**	6th August 2020

1. Suggested discussion points *[two or three issues you consider the Committee should focus on]*

Midland Metropolitan University Hospital was designed with a model of care in mind. As construction remains largely on track, the acute care model is being socialised in the Trust over the summer. The purpose of this paper to the Trust Board and wider engagement activities is to re-orientate staff to the MMUH building and purpose and refine the acute care model proposal with further clinical input. This early input of clinical leaders and team ideas is important to establish ownership, create real readiness to move and complete successful clinical commissioning.

In parallel a stakeholder and key relationship map is under review to inform engagement activities more broadly.

The final version of the model will be written up for October 2020.

2. Alignment to 2020 Vision *[indicate with an 'X' which Plan this paper supports]*

Safety Plan	x	Public Health Plan		People Plan & Education Plan	x
Quality Plan	x	Research and Development		Estates Plan	x
Financial Plan	x	Digital Plan	x	Other *[specify in the paper]*	

3. Previous consideration *[where has this paper been previously discussed?]*

EMPA, CLE, EDC (previous version)

4. Recommendation(s)

The Clinical Leadership Executive is asked to:

a.	**DISCUSS** the acute care model
b.	**CONSIDER** the engagement approach
c.	**EXPECT** an updated and final proposal in October

5. Impact *[indicate with an 'X' which governance initiatives this matter relates to and where shown elaborate]*

Trust Risk Register	x	SBAF 19						
Board Assurance Framework								
Equality Impact Assessment	Is this required?		Y		N	x	If 'Y' date completed	
Quality Impact Assessment	Is this required?		Y		N	x	If 'Y' date completed	

SANDWELL AND WEST BIRMINGHAM HOSPITALS NHS TRUST

Report to the Public Trust Board: 6th August 2020

Clinical Model in Midland Metropolitan University Hospital

1. Introduction

1.1 With 87 weeks at the time of writing until handover of the Midland Metropolitan University Hospital (MMUH) from Balfour Beatty to Sandwell and West Birmingham Hospitals Trust, the definition of the acute care model in the new hospital is key to be agreed in 2020. This care model will then inform preparedness and readiness work at service and team level in 2021 to ensure services are designed to work effectively in MMUH and teams are well prepared to work in the new environment.

1.2 The move to MMUH is not just a logistical 'move in' of existing services. The sheer scale of some departments once combined from 2 sites to 1 will require different ways of working. The new hospital build was based on a clinical design to improve the experience and care for our patients. The new acute care model is about 'moving on'.

1.3 The acute care model set out in this paper is being socialised through a series of engagement workshops with clinical services over the next 8 weeks. The purpose of these engagement activities is to re-orientate staff to the MMUH building and purpose and refine the acute care model proposal with further clinical input. This early input of clinical leaders and team ideas is important to establish ownership, create real readiness to move and complete successful clinical commissioning. The final version of the model will be approved in October 2020.

1.4 The acute care model is described at pathway level for both adults and children in terms of locations, clinical service or pathway changes, workforce and technology for:

- Urgent Care Pathways
- Speciality pathways and diagnostics
- Surgical Pathways
- Care of the critically ill patient
- Inpatient Wards and therapeutic care

1.5 The supporting annexes 1 (Adults) and 2 (Children) are intended to provide an initial visual representation of the pathways. All teams moving into MMUH will need to be prepared for the change of working in a new environment. Above and beyond this, service changes will be necessary to deliver the new acute care model. We should aim for not more than 30% of service change to take place at or post move into MMUH. We therefore need to be clear on what must be achieved before the move into MMUH.

This visualisation and the pre/ post move implementation detail will be further worked up over the summer and represented in October.

2. Adult Urgent Care pathways (Annex 1)

2.1 The table below shows the locations of care in the adult urgent care pathway. Critical Care services are covered in section 5.

Service	**Pre hospital pathway**	**ED**	**Diagnostics**	**Ambulatory Care**	**AMU**
Location	WMAS, 999, 111, SPA	2nd floor	2nd floor	2nd floor	2nd floor
Service	**SAU**	**PAU**	**Critical Care**	**Cath Lab**	**Cardiology Ward**
Location	2nd floor	4th floor	3rd floor	2nd floor	2nd floor

2.2 The out of hospital acute care model starts in **primary care** working with community services and secondary care specialists. The management of long term conditions at home, supported nursing home based care and the practice of acute diagnostic assessment outside of an acute hospital setting, are key foundations to avoid the need for admitted acute hospital based care. The Covid 19 pandemic primary care and community response has accelerated some of these models of care. A joined up vision for community based acute care will be explored further with partners to optimise the care offer this year.

2.3 Clinical service change will include review of the **pre hospital pathways** into MMUH with the opportunity to merge the multiple Single Points of Access that exist for primary care access into secondary and community care. The **front end of the ED pathway will remain GP led**.

2.4 **Immediate 24/7 senior clinical assessment** in the **Emergency Department** (ED) is essential to drive safe and timely pathways with early diagnostics either through the ED or direct to alternative urgent care settings including scheduled primary care appointments.

2.5 The scale of **ED** is such that it will no longer be run as a single department with a nurse and senior doctor in charge. Zonal coordination of resus, majors, minors, paediatrics and urgent primary care will be a necessary leadership delivery model. This requires standardisation of practice and clinical leadership capability to work the zonal model. The communication skills between zonal teams and zones to step levels of care up or down will be enabled via 'Vocera' type technology, which facilitates immediate verbal communication by role at a distance.

2.6 A **mental health assessment** facility sits adjacent to the ED. The Trust currently has 2 psychiatric liaison services which need to function as a single service experience or mental health provision in the hospital setting needs to be commissioned from a single provider.

There is a future potential scenario to host a stand-alone mental health decision unit on site in the hospital grounds. This would provide a location outside of the hectic and distracting environment of ED. It would remove need for specialist staffed ambulances to transfer patients at great cost (patients could walk to the facility with professionally trained escorts) and have mental health trained staff working 24/7 in a purposefully designed facility to assess patients and progress care onto community supported care or relevant admission. This could potentially improve both patient experience and outcomes compared to those patients attending on the current pathways which are through a confined ED cubicle, within a busy department, with intermittent attending specialist carers and extremely long waits for formal mental health assessment.

The benefits of this compelling vision are worthy of exploration. The single service provider option in ED is essential to agree prior to the move into MMUH.

2.7 **Ambulatory care and acute assessment** like ED are at a scale that will require zonal working. Ambulatory Care will be mainly delivered by Advanced Clinical Nurse Practitioners to assess, treat and discharge patients directly streamed / scheduled from ED and the SPA. This is a significant workforce design and change to be delivered.

2.8 **Sickle cell and thalassaemia day care** is available in MMUH for both urgent care non admission pathways as well as planned day case treatment.

2.9 A key service design still outstanding is the **older peoples and frailty model** which will be designed to avoid unnecessary admission, continue community or nursing home based care and admit patients on a risk stratified inpatient pathway. Older people assessment will be based in AMU and Ambulatory Care. The older peoples and frailty model will be confirmed by October.

2.10 **The adult inpatient admitting model** will be based on ED, Acute Medicine and Critical Care consultant led shifts 7 days a week. This will include an initial senior clinical review within 14 hours of admission and ongoing daily review to meet the national clinical 7 day service standards, which are aimed at improving clinical outcomes and reducing inequity of service between weekday and weekend. This requires recruitment, workforce planning and redesign of rotas within budget with key admitting specialties such as respiratory and older people's medicine to integrate into the acute medicine workforce which is the most significant workforce risk based on current state.

2.11 **The adjacency of ED to adult ambulatory care and assessment units for both medicine and surgery** places acute medicine, surgery and cardiology specialists directly next to and therefore in the ED. Senior clinicians from such specialities will be based in ED to deliver a rapid speciality assessment and work to patient pathways that pull patients

from ED to ambulatory care, utilise speciality procedure rooms appropriately outside ED and admit patients via a single clerking model for inpatient assessment.

3. Speciality pathways and diagnostics

3.1 The table below shows the locations of care in the Specialty and Diagnostic pathway.

Service	**Cath Lab**	**Cardio physiology**	**Radiology**	**Nuclear Medicine**
Location	2nd floor	2nd floor	2nd floor	2nd floor
Service	**Endoscopy and interventional radiology**	**Urodynamics**	**Neuro physiology**	**Respiratory Physiology**
Location	3rd floor	4th floor	4th floor	4th floor

3.2 The design of the 2nd floor at MMUH and visible WMAS electronic patient record enables **trusted assessor pathways from WMAS direct to diagnostics or treatment**; these include:

- WMAS – primary PCI – direct to Cardiac Catheter Lab then Cardiology Ward
- WMAS – suspected stroke – direct to CT and then Hyper Acute Stroke Ward
- WMAS – suspected but stable hip fracture – direct to radiology and then SAU

These pathways facilitate opportunity for improved time to treatment and improvement of patient outcomes aligning with improvement in mortality rates in the quality plan. Specialities will be engaged with the design of other straight to test or treatment pathways. Consideration must be given to implementation in our current environments.

3.3 **The diagnostic facilities in MMUH are for urgent care or admitted patients only.** Planned care diagnostics will take place at the off-site treatment centres. The utilisation of diagnostics in MMUH will be lower than currently experienced and afford fairly immediate testing. The impact of this aligned with on the day reporting will improve time to treatment and ultimately reduce length of stay.

4. Adult Surgical Pathways

4.1 The table below shows the locations of care in the Surgical pathway.

Service	**SEAU**	**SAU and EGAU**	**Theatres**	**Wards**
Location	2nd floor	2nd and 6th floor	3rd floor	7th and 8th floor

4.2 Most **Surgical services are already located on the same site** so are used to working at a similar scale that designed in MMUH.

4.3 **Surgical Emergency Ambulatory Care** with it's adjacency to ED, has an opportunity to streamline pathways direct from triage and utilise the available diagnostics to expand pathways of non-admitted surgical patients traditionally seen in ED eg renal colic. The Emergency Gynaecology service model (EGAU) will be transferred to MMUH.

4.4 City and Sandwell **inpatient and emergency theatres** will be standardised to collocate at MMUH. The theatre suite has adjacencies to preadmission and recovery care.

4.5 An **inpatient ward based speciality model** can either accommodate mixed surgical specialities or a combination of gastroenterology and gastrointestinal surgery. The pro and cons of each will be explored over the summer and included in the final acute care model document in the autumn.

5. Care of the critically ill patient

5.1 The table below shows the locations of care for critically ill patient pathways.

Service	**Level 3 care – ICU Critical Care Service**	**Level 2 care- HDU Critical Care Service**	**Level 1 care – ward level monitored beds**
Location	3rd floor	3rd floor	AMU – 2nd floor GI Surgical ward – 8th floor Respiratory ward – 3rd floor CCU – 2nd floor HASU- 6th floor

5.2 The Level 1 critical care services are speciality based. The adjacency of the respiratory level 1 non-invasive ventilation facility to the level 3 critical care unit, is helpful in terms of centralising escalated respiratory support and ventilation requirements such as those resulting from pandemic related increased demand.

6. Inpatient Wards and therapeutic care

6.1 **Inpatient wards** are based on floors 6, 7 and 8. Inpatient specialities include GI medicine (possibly with GI surgery), haematology, toxicology, acute stroke, cardiology, older people adjacent to orthopaedics who have dual medical and surgical input and gynaecology. There is space technically being commissioned on the 9th floor for inpatient wards.

6.2 **Specialities** largely move from a single site or from 2 sites to 1. The latter scenario could include the merger of 3 or more ward teams. There will be significant team development work within the readiness programme to be designed and delivered. Stroke decouples acute services into MMUH and leaves rehabilitation services at Sandwell.

6.3 **Wards will be standardised** in their layout and basic principles of how they function. This will include a standard approach to medication rounds, the receipt of stores and goods and internal storage of supplies and equipment, location of computers and resus equipment. Standardisation should not be underestimated; our current practice has mass variation. The benefits of lean working, safety associated with standardisation and implementation of automated robotic vehicles as part of how we work, all necessitate standardisation at ward level. Standardisation must start before the MMUH move and perhaps form the basis for safety plan version 2. The detail of standardisation which should be achieved before 2022 will be worked up in 2020, for implementation in 2021.

6.4 **The high single side room ratio** will change both the staff and patient experience. The 50% ward side room ratio improves privacy and dignity of those patients at end of life and for their families. Infection control is a significant safety benefit building on our good track record for infection management. Outbreak and pandemic management will be massively enhanced with one of the largest provisions of negative pressure ventilation rooms per bed base nationally.

The experience and benefits of the side rooms will also be opposed by potential challenges of patients feeling unnecessarily isolated in terms of visual oversight and opportune communication with staff. Technology with voice assisted patient call systems will be incorporated into new ways of working. Culturally we cannot afford for staff to behave in a way that 'heads are kept down' and 'eye contact in avoided' – this will inform work prior to 2022.

6.5 **The Therapeutic Care model will not be solely ward based.** The new MMUH environment will be enhanced with patients using ward kitchens as part of their recovery both physically and in terms of confidence towards self-care.

The circulation space both inside the building with bridges across each ward level floor, the winter garden and a 360 degree exercise route around the building on Level 5 with complementary outside gardens and activity points, will be incorporated into daily physical and mental well-being care for both patients and staff.

The winter garden is a social, learning and retail space that not only has an art gallery but space for 'pop up' activities which could support dementia therapeutic care with alternative stimulation and activities to traditional ward based care.

6.6 **Supporting care for early and safe discharge with social care partners** starts on admission. Practices related to assessment, referral and discharge will be standardised in advance of the move to create postcode blind pathways with both social care providers. The experience for patients and staff should be uniform.

6.7 The increased **community bed base** in 2022 will support discharge. Pathways for early supportive discharge and criteria to optimise step up as well as stepdown pathways, is key to ensure this bed base is well utilised and achieves good outcomes for patients to support onward care at home.

7. Children and Maternity pathways

7.1 The table below shows the locations of care in the Children and Maternity pathway.

Service	**ED**	**PAU**	**Day Case and theatres**
Location	2nd floor	4th floor	4th floor and 3rd floor
Service	**Wards**	**Delivery suite and Maternity ward**	**NNU**
Location	4th floor	3rd and 4th floor	3rd floor

7.2 **Pre hospital pathways and immediate 24/7 senior clinical assessment in the Emergency Department** (ED) follow the adult care model for children.

7.3 **Children's Mental Health** would be improved by on site mental health services. The future state urgent care specialist service and onward pathways will be reviewed with the CAMHS service. The current service offer by external providers remains inadequate particularly in terms of Tier 4 bed which remains on the trust risk register.

7.4 The current 2020 new adjacency of ED and PAUs will enable joint working under **single speciality leadership for the urgent care children's service and create pathways of care to be replicated in MMUH**. The integrated workforce model between ED and PAU, with single speciality leadership likewise will be replicated into MMUH.

7.5 All **paediatric surgery and day care treatments** will take place at MMUH. The inpatient bed base will include dedicated adolescent beds.

7.6 **Critical care facilities for children** will include HDU and a respiratory level 1 facility for non-invasive ventilation and continuous positive airway pressure treatment.

7.7 The access to the 4th floor services for **urgent care presenting patients for maternity** via ED in a direct lift to access the 3rd floor services. The **delivery suite and neonatal unit** are adjacent on the 3rd floor with post-delivery care on the 4th floor.

7.8 **7 day consultant led standards** will be in place for children and maternity services and will meet the service standards of 14 hour post admission and daily consult reviews outlined in section 2.10 for adults.

7.9 **Supporting care for early and safe discharge** with supporting community services will include achieving the quality plan goals of improving school attendance time. As with adult care practices assessment, referral and discharge processes will be standardised to create postcode blind pathways with both social care providers. The experience for patients, carers and staff should be uniform.

7.10 The **Therapeutic Care model for children** similarly to adults benefits from the winter garden and outside space which can incorporate daily physical, mental well-being and learning space.

8 Engagement activities

8.1 Annex 3 shows the schedule and content of engagement activities designed with Group Directors over the next 8 weeks.

8.2 A familiarisation product with an animated 'fly through' the building and PowerPoint presentation will be published to all Clinical Groups at the start of August. Engagement workshops will be supported and facilitated by the System Transformation team including the commissioning and improvement team.

8.3 Engagement activities within the Clinical Groups are departmental and patient pathway based. In addition each Group Director will be asked to present back the answers to a set of engagement questions to inform future engagement activities and work stream content post October:

- What are the benefits or opportunities you envisage at service or pathway level in MMUH?
- What are you worried about/ what challenges do you foresee?
- What patient pathways can benefit from a 'straight to test' diagnostic model or point of care testing in community and acute locations in MMUH?
- What workforce changes do you anticipate? Please consider 7 day working, ANP model, hard to fill posts.
- Programme management, communication and engagement: What are your main lessons learned from Covid 19, Unity and service reconfiguration experiences?

  What went well? What would you do differently?
- What questions do you have about the future?

8.4 Two external engagement activities will take place with our social care and mental health providers as these are both integral to admission avoidance and patient flow from MMUH to a community supported onward patient pathway or discharge home. The move into MMUH under current pathways would create a post code based care pathway which would be confusing for staff and cause differential pathways for patients within the same acute care location. This must be avoided through standardisation.

8.5 The output of all the engagement activities will inform a revision of the acute care model and the design of the preparedness and readiness programme in 2021.

8.6 Once the care model is finalised further external engagement with external stakeholders will take place. A Stakeholder mapping exercise is in train and a stakeholder engagement and relationship management proposal will be presented to EMPA by October.

9 Recommendations

9.1 The Trust Board is asked to:

a. **Discuss** the acute care model
b. **Consider** the engagement approach
c. **Expect** an updated and final proposal in October

Rachel Barlow
Director of System Transformation

July 2020

Annex 1 Adult acute care model
Annex 2 Children's acute care model
Annex 3 Engagement activities