Meeting Date	**22nd October 2018**	**Agenda Item**	**4b**
Report Title	**Status Report on Theatre Performance**		
Report Author	Malcolm Thomas – Associate Director – Recovery and Sustainability		
Report Sponsor	Chris White – Chief Operating Officer		
Presented by	Chris White – Chief Operating Officer		
Freedom of Information	Open		
Purpose of the Report	This report informs the Performance and Finance Committee of the current performance status of our Theatre services and planned remedies to address under performance across the Delivery Units.		
Key Issues	The performance of our Theatre departments across the Health Board is a key performance improvement target that will enable timely access in both Emergency and Elective surgery – and which in turn will help our reduction in waiting times and the overall RTT position. The key challenging areas of underperformance relate to the patient flow in accessing bed capacity, Pre-assessment, theatre utilisation, and theatre throughput. Improving the theatre performance will reduce pressures around waiting times, waiting list initiatives including out sourcing and improve the quality of care given to our patients by more timely access to their surgery and reduced cancellations of their surgery.		

Specific Action Required ***(please ✓one only)***	**Information**	**Discussion**	**Assurance**	**Approval**
			✓	

Recommendations	Members are asked to: Receive and note the status report of current performance for the Theatre services in ABMU HB and actions to improve delivery within the respective Units.

Status Report on Theatre Performance

1. INTRODUCTION

This report informs the Performance and Finance Committee of the current performance status of our Theatre Departments and planned remedies to address under performance across the Delivery Units.

2. BACKGROUND

Operating theatre services are an essential part of patient care. It is in the interest of Patients and NHS organisations to ensure that operating theatre resources are used to best effect so that they are cost effective, support the achievement of waiting time targets and contribute to positive patient experience.

Prior to the last Health Board management reorganisation – theatres was managed across the whole health board as a single service. Following the reorganisation theatres were split and predominantly allocated to each Delivery unit apart from Neath Port Talbot theatres which continues to be managed by the Princess of Wales Unit. Each of the Acute Delivery units within the Health Board has a Theatre department of varying size and complexity. The main surgical theatres allocation on each site are detailed as below:

Morriston – 20 Theatres allocated – covering Emergency, Trauma and Elective Surgery for a full range of secondary and tertiary services. There is no dedicated Day Surgical Theatre and therefore such activity is undertaken within main theatres which can reduce the departments capacity to undertaken more complex surgery when theatres are used in this way.

Princess of Wales – 10 Theatres allocated (excluding Obstetrics) - covering Emergency, Trauma and Elective Surgery for a full range of secondary services. This includes two dedicated Day Surgical Theatres and two Ophthalmology Theatres.

Singleton – 9 Theatres allocated (excluding Obstetrics) - covering predominantly elective and Day Surgery for a selected range of secondary care.

Neath Port Talbot Hospital - 5 Theatres allocated (excluding Obstetrics) - covering predominantly Elective and Day Surgery for a selected range of secondary care.

These theatres consume significant resources and are key to delivery of our RTT waiting times and emergency surgical activities. Their efficient use when other resources such as ward and critical care beds are available would offer opportunities to reduce overall costs, improved reduction of waiting times and improve the timely delivery and quality of care to our patients.

Budgets are as follows:

18/19 Actual Spend YTD (April - August)	**Morriston**	**Singleton**	**POW (includes NPTH)**
Pay - Direct Theatres Spend	3,837,850	1,298,332	2,525,249
Pay - Anaesthetics Spend	4,514,084	2,028,067	2,501,396
Total Pay	**8,351,934**	**3,326,399**	**5,026,645**
Non Pay - Direct Theatres Spend	2,065,370	684,795	1,087,391

Non Pay - Anaesthetics Spend	331,208	148,804	248,921
Total Non-Pay	**2,396,578**	**833,599**	**1,336,312**
Total Pay & Non Pay	**10,748,512**	**4,159,997**	**6,362,957**
Delivery units total budget allocation - (April to August)	**93,216,704**	**62,899,395**	**40,171,757**
% Theatre Spend as a Proportion of Units total Budget	**12%**	**7%**	**16%**

17/18 Actual Spend	**Morriston**	**Singleton**	**POW (includes NPTH)**
Pay - Direct Theatres Spend	9,296,519	3,155,297	5,886,448
Pay - Anaesthetics Spend	10,625,445	4,773,750	5,915,950
Total Pay	**19,921,964**	**7,929,047**	**11,802,398**
Non Pay - Direct Theatres Spend	5,175,479	1,671,089	2,715,685
Non Pay - Anaesthetics Spend	819,919	368,369	543,233
Total Non-Pay	**5,995,398**	**2,039,458**	**3,258,918**
Total Pay & Non Pay	**25,917,361**	**9,968,506**	**15,061,316**
Delivery units total budget allocation	**211,427,840**	**145,353,421**	**102,713,545**
% Theatre Spend as a Proportion of Units total Budget	**12%**	**7%**	**15%**

For numerous reasons our overall efficiency in theatres over a long period of time has not been as optimal as it could be and has therefore required a more focused performance improvement programme to support service change.

3. Key Issues

In the period from the 1st April 2017 to the 30th September 2018 the number of operations cancelled were 18,348 – of which 7111 were cancelled on the day. These can be broken down through:

Hospital Non – Clinical cancellations – 8401 (46%)

Patient cancellations – 5388 (28%)

Hospital Clinical – 4424 (24%)

Other – 135 (2%)

The Theatre Board have been focusing on the following key improvement areas:

Pre Assessment – pre assessment for elective surgical patients should be undertaken routinely prior to a planned admission date for each patient. The services are managed in each hospital very differently – with for example the services at the Princess of Wales having a predominantly integrated clinical and administrative team managed by a single directorate to coordinate Pre-assessment – whilst in Swansea the clerical and clinical teams are managed by different directorates – with arguably until recently little communication between the respective services, confusion and uncoordinated arrangements leading to potentially unfit or patients not requiring surgery being sent for

admission (patients changing their minds). Examples from the period 1st April 2017 to 30th September 2018 show the following results from a total of 4424 hospital cancelled operations:

Unfit for Surgery – 36%
Operation not Necessary – 16%
Further investigations required – 13%
Unsuitable for surgery – 9%
Surgery already completed – 3%
Patient deceased – 1%

A further 5388 were patient cancelled operations and were cancelled because of the following reasons:

Operations no longer required – 13%
DNA – 14%
Refused Operation – 7%
Unwell – 23%
Appointment inconvenient – 42%
Pre Operation guidelines not followed – 2%

Access to Beds – Clearly for theatres to be optimised requires patients being admitted into beds in a timely pathway. However, with unscheduled care pressures in terms of both medical admissions and critical care, this will impact on delivering improved performance for the theatre service. In times of high medical admissions – elective surgery can be cancelled for patients on the day or indeed a few days prior to a planned admission if the expectation of high front of house pressure is expected i.e. during winter periods. In the period 1st April 2017 to 30th September 2018 – 8401 Hospital non clinical operations were cancelled – of which 10% were cancelled because of no ward beds and a further 1% because of no critical care beds.

When bed pressures are at their greatest, the tendency is to cancel theatre activity which potentially has the lowest risk from delaying that surgery – the greatest impact tends therefore be felt by:

Orthopaedics – 28%
General Surgery – 12%
ENT – 9%
Multi-Specialty – 9%
Plastic Surgery – 8%

This can particularly manifest itself through growing waiting times in Elective orthopaedics etc.

Start and Finish Times / Theatre Utilisation - Theatres typically start to receive patients for theatre between 8.30 and 9.00am for the morning session and approximately 1.00pm for the afternoon theatre session. However, this is often compromised by bed pressures (patients not being admitted on time because of a lack of beds), fitness assessment of patients to undergo surgery (not being appropriately pre assessed or suffering from a cold / chest infection), patient needing to be consented on their day of surgery, patient

preparation on the ward being delayed (waiting for a porter, preparing the patient for theatre, availability of nurses etc.) etc. Such events could also have an impact of the finishing time of theatres – i.e. scheduled patients being cancelled and therefore insufficient patients to fill the allocated surgical time, some cases will be completed more quickly because of their complexity not being as difficult as first thought, or through badly managed patient scheduling.

Late Starts – Initial target = 25%

	2015 / 2016	2016 / 2017	2017 / 2018	April 2018 to September 2018
Late Starts				
Singleton	39%	42%	43%	45%
Morriston	51%	51%	47%	40%
Princess of Wales	51%	39%	34%	39%
Neath Port Talbot	46%	41%	33%	32%

Early Finishes – Initial Target = 20%

	2015 / 2016	2016 / 2017	2017 / 2018	April 2018 to September 2018
Early Finishes				
Singleton	34%	35%	35%	36%
Morriston	52%	49%	34%	33%
Princess of Wales	42%	41%	40%	39%
Neath Port Talbot	51%	51%	53%	55%

Cases cancelled on the day – Initial Target – 10%

2017 / 2018 – 42% (4983) Currently (6 months) – 33% (2128)

	2015 / 2016	2016 / 2017	2017 / 2018	April 2018 to September 2018
Cases Cancelled on the day				
Singleton	660	979	957	448 *(896)
Morriston	2349	3707	2312	777 *(1554)
Princess of Wales	890	1251	1271	685 *(1370)
Neath Port Talbot	292	546	502	240 *(480)

*Bracket figures in the last column above are pro rata for a 12 month period.

Total Cases cancelled – Initial Target – 10%

2017 / 2018 – 23% (12028) Currently (6 Months) – 24% (6486)

	2015 / 2016	2016 / 2017	2017 / 2018	April 2018 to September 2018
Total cases cancelled				

Singleton	873	1709	2108	1077 *(2154)
Morriston	2938	5488	4877	2408 *(4816)
Princess of Wales	2053	2852	3220	2052 *(4104)
Neath Port Talbot	962	1833	1823	949 *(1898)

*Bracket figures in the last column above are pro rata for a 12 month period.

When considering theatre utilisation there remains considerable scope for improvement, especially given that the upper quartile performance across main theatres in comparator organisations is between 86 and 90 per cent. Our IMTP has indicated a 90% Utilisation rate for our Theatres.

	2015 / 2016	**2016 / 2017**	**2017 / 2018**	**April 2018 to August 2018**
Utilisation				
Singleton	68%	67%	61%	59%
Morriston	73%	74%	81%	78%
Princess of Wales	69%	71%	72%	71%
Neath Port Talbot	64%	65%	66%	61%

Productivity

Activity delivered through theatre has increased in a number of areas demonstrating changes in case mix (inpatients to day cases), and in emergency theatre numbers.

	2015 / 16	2016 / 17	2017 / 18	April 18 – September 18
Morriston				
In Patients	8332	8403	6953	3205 (6410)
Emergency cases	4203	4248	4368	2256 (4512)
Day Cases	2223	2591	3262	1833 (3666)
Singleton				
In Patients	2190	1630	1405	661 (1322)
Emergency cases	518	465	439	248 (496)
Day Cases	5827	6171	5935	2812 (5624)
Princess of Wales				
In Patients	2920	2932	2755	1462 (2924)
Emergency cases	1361	1440	1407	699 (1398)
Day Cases	4543	4541	4492	2330 (4,660)
Neath Port Talbot				
In Patients	1436	1395	1481	738 (1476)
Emergency cases	15	15	53	36 (72)
Day Cases	2947	3181	2975	1435 (2870)

*Bracket figures in the last column above are pro rata for a 12 month period.

The last summer period was exceptional in terms of dry weather – which potentially also had an impact with members of the public making most of the weather and consequent increase in trauma arriving at some of the main acute units. However, with the changes to

CEPOD and Trauma theatres in Morriston particularly, Trauma activity has increased and also there has been a reduction in the numbers of patients who had their surgery cancelled and rearranged on the day.

	2015 / 16	2016 / 17	2017 / 18	April 18 – September 18
Trauma Cases completed	1105	1869	2146	1142 (2284)
Number of Trauma cases cancelled on the day	381	632	398	207 (414)

Staffing – This has a number of dimensions, which includes coordinating surgical, anaesthetic and theatre nursing resources which can be compromised by unplanned sickness or vacancy gaps within these respective services. Unfortunately within the Nursing teams there has been significant staff turnover, high nurse sickness rates (i.e. 13% in some areas) and vacancies existing within the departments which will have an impact if theatres cannot be appropriately staffed – often this will lead to theatre sessions being cancelled on the day and more regularly in advance. Additionally, there are some theatre sessions which are unfunded.

In terms of the number of cases cancelled due to there being insufficient Theatre staff available for the case is as follows:

	2015 / 16	2016 / 17	2017 / 18	April 18 – September 18
%age Cases Cancelled	1%	3%	4%	11%
Equates to Cancelled cases (includes cancelled on the day figure)	30	163	219	322
Equates to Cancelled on the day	18	84	90	97

18/19 Budgeted Establishment	**Morriston**	**Singleton**	**POW (includes NPTH)**
Theatres Budgeted establishment - WTE	272.40	89.50	178.34
Anaesthetics Budgeted establishment - WTE	123.43	55.46	73.17
Total Budgeted WTE	**395.83**	**144.96**	**251.51**

Information and Reporting – The Theatre services have a dedicated Theatres Information system (TOMs) which records and is able to report on theatre activities. As with all information systems the information is only as good as what is entered and this can sometimes be variable. Further, information reporting to demonstrate more accurately what is actually being undertaken can be difficult – i.e. when comparing throughput of one theatre against another or consultant against another consultant – if the case complexity is

very different or the speed of one surgeon or anaesthetist against another undertaking similar procedures. There is a small group of clinicians, managers and Information colleagues reviewing and building more formative reports to help with users having a better and more knowledgeable understanding of the activity going through theatres for day to scheduling and reporting.

HSDU – having sufficient and timely stocked theatre trays is clearly essential to delivering good theatre services. Increased specialisation and additional surgical capacity without increased resources for the HSDU led to increased service delivery pressures within this department resulting in a backlog of theatre trays, delays in turnaround times, insufficient and defective instruments (At the end of 2017/18 HSDU reported over 200 equipment breakdowns, which not only affected production but potentially delayed patient care), and staffing vacancies.

Governance – Communication between surgical and theatre teams is vital in terms of planning / scheduling lists for theatre, undertaking consistent WHO checklist briefings prior to the commencement of theatre lists, and having an agreed threshold for assessing a patients tolerance / readiness for surgery are all key components to efficient theatre running – these can be variable and there is a need for sustainable and consistent arrangements in place.

4. Actions undertaken to address these key Issues

Over the last 12 / 18 months a number of actions have been undertaken to start to address these key issues:

- A revised Theatre Efficiency Board has been resurrected which has both key clinicians and management representatives from each acute delivery unit and chaired by the Chief Operating Officer. The purpose of this Board is to lead the improvement and efficiency of theatre services and to respond to any strategic change initiatives.
- Theatre Committees have been established within each Delivery unit to improve local performance and delivery issues
- Weekly multi-disciplinary meetings are held in Morriston and Princess of Wales hospitals to review individual patient pathways and to identify opportunities for improvement. These meetings also address / review the reasons and responses to late starts and early finishes.
- The Morriston Delivery Unit has undertaken a Theatre management restructuring which was implemented in April this year. This included greater staff engagement around gaining consensus and obtaining support / ideas for improving performance / service delivery.
- A Pre Assessment task and finish group has been established to improve coordination of pre assessment across the Health Board
- HSDU has received a capital injection to address a number of their instrumentation concerns / new washers and their turn around / backlog has reduced significantly. Capital investment was provided to purchase three new washer disinfectors on the Morriston site in 2017/18, with additional investment allocated for sterilisers in 2018/19. The department has continued to maintain services through managing the processing of some of the Morriston work through the Singleton site.

- Review of information and reporting is underway and a broad agreement in place for the detail of that reporting which reflects more accurately case complexity, touch time in theatres and utilisation.
- The Princess of Wales pre assessment team have introduced screening arrangements in a number of specialties which offers an alternative to face to face appointments.
- Local teams are reviewing the specialty use of theatres and any fallow use of allocated sessions are being removed and reallocated to other services with more pressing needs.
- An additional rotating CEPOD theatre has been made available in Morriston to address emergency surgical pressures and reduce patients needing access to emergency theatre – thus potentially reducing length of stay for those patients and improving their recovery / quality of care.
- HSDU continued to work towards service improvement and maintain accreditation to ISO 13485.
- HSDU service level agreement indicates a 48 hour turnaround, over 58% of equipment received into HSDU is required for turnaround within 24 hours
- Screening of patients has been introduced in the Princess of Wales and Swansea in some specialties to minimise the requirement for face to face patient contacts and ease throughput.

Further actions include:

- The pre assessment service currently provided on the Singleton site needs to transfer to Morriston to enable a more coordinated clinical and managerial service for the Swansea services. A plan has been identified for accommodation to be provided within the HVS building which is currently being taken forward within the delivery unit. This will enable better coordination of all pre assessment patient clinic slots, interface with specialist nurses, onsite communication with the clerical / waiting list teams and the introduction of improved pathways for screening of patients.
- Action plans have been provided by each delivery unit to deliver improvements to their respective services which is being monitored by the Theatre Efficiency Board.
- Theatre Information systems are being developed to report on efficiency that reflects the complexity of activities within theatres. An early draft of outputs is available but further work is underway to make this a more working document with target / trajectories for improvement.
- Guidelines are being finalised within anaesthetics to agree thresholds for patient's admissions prior to surgery.
- The Theatre Nursing leaders are revising all Theatre Operational procedures on a rolling basis.
- Pre assessment accommodation in the Princess of Wales in under review. Additional space will offer improved turnaround and capacity for the service.
- The Health Board is participating in the National Theatre Benchmarking framework and will making peer comparison with other peer group hospital theatre services.
- Developing a Business case at Morriston Hospital for a dedicated post-anesthetic care unit which will allow major surgery to continue without increasing the number of ITU beds to be carried out in conjunction with the Critical Care T&F Group chaired by Dr. Chris Jones (set up to allocate the £15million recurring announced by the Minister for critical care in Wales)

- Ongoing staff engagement in order to address high nurse sickness rates and to improve nurse recruitment and retention within this specialist area.
- Consideration will need to be given to the potential for protecting some beds for elective surgery to be maintained as part of the Health Boards capacity and demand profiling. The most significant pressure being within Orthopaedics and an “Elective Centre” Business case is being developed to respond to this pressure.
- Further team working arrangements will evolve around streaming and delivering services around requiring those outpatient procedures undertaken which can be accommodated into clinic, those requiring a day case admission, those requiring access to a 23hour 59 minute service and inpatients requiring a longer stay – this will enable improved scheduling and use of our theatre capacity at an earlier stage through clinicians and pre assessment teams working more collaboratively.
- Consultant Job Plans will need to be agreed and reflect changes as appropriate
- Developing a Nurse recruitment and retention strategy for the service
- Reviewing the Theatres departments skill mix and looking to alternatives opportunities to develop new posts
- Work to further improve the sustainability and turnaround of trays from HSDU services
- To carry out an evaluation to centralise HSDU onto one site (not necessarily an acute hospital site) to improve efficiency and increase robustness of service as an Invest to save opportunity.

5. RISK ISSUES

The Delivery units have developed Action Plans to support the delivery of improved performance and outcomes for Theatre services and the mitigation of associated risks.

The main risks relate to available bed capacity at times of high unscheduled care pressures, and the clinical workforce capacity to sustainably deliver full optimisation of theatre capacity and standards across the Health Board.

6. FINANCIAL IMPLICATIONS

Financial implications of any of these issues are being addressed through the development of appropriate business cases – either from a strategic perspective via the Investments and Business Group (IBG) or through local budgetary movements agreed within each delivery unit.

7. RECOMMENDATION

The Committee is asked to note the content of the report and the actions being taken to improve overall performance in this key target for the Health Board.

Governance and Assurance

Link to corporate objectives *(please ✓)*	Promoting and enabling healthier communities	Delivering excellent patient outcomes, experience and access	Demonstrating value and sustainability	Securing a fully engaged skilled workforce	Embedding effective governance and partnerships
	✓	✓	✓	✓	✓

Link to Health and Care Standards *(please ✓)*	Staying Healthy	Safe Care	Effective Care	Dignified Care	Timely Care	Individual Care	Staff and Resources
	✓	✓	✓	✓	✓	✓	✓

Quality, Safety and Patient Experience

For our population we want:

- **Timely and effective care:** People of all ages to have timely access to admission for elective surgery and / or receive emergency surgery when required. When arranged to have confidence of being admitted with the full knowledge of the procedure and its implications as appropriate.

- **Patient Outcome:** People who require surgery in ABMUHB to have outcomes comparable with the best in Europe.

Financial Implications

There are no additional financial implications identified as part of this status report.

Legal Implications (including equality and diversity assessment)

The ABMU Health Board is responsible for planning, delivering and optimising theatre capacity and services for its catchment population. The actions being taken forward will look to take these issues into account and deliver improved utilisation against benchmarked peer groups.

Staffing Implications

Workforce issues around recruitment and sickness levels of Nursing colleagues has impacted on the delivery of these changes. These pressures will continue to impact on delivery if no skill mix and flow changes materialise. The action plans are being developed to manage these implications and introduce new practices and changes to workforce requirements to reflect new ways of working and modernising our workforce.

Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015 - https://futuregenerations.wales/about-us/future-generations-act/)

The optimisation of theatres across the Health Board will support the improved

delivery of our overall waiting times and reduce the need for outsourcing of patients.	
Report History	None
Appendices	