



Bwrdd Iechyd Prifysgol  
Bae Abertawe  
Swansea Bay University  
Health Board



|  |   |                          |                                     |                          |
|--|---|--------------------------|-------------------------------------|--------------------------|
| <b>Meeting Date</b>  | <b>23 November 2021</b>   | <b>Agenda Item</b>       | <b>4.2</b>                          |                          |
| <b>Report Title</b>  | <b>Theatre Performance – Update Report</b>  |                          |                                     |                          |
| <b>Report Author</b>   | Tersa Humphreys, Associate Service Director Clinical Support Services   |                          |                                     |                          |
| <b>Report Sponsor</b>  | Inese Rowbotham – Chief Operating Officer   |                          |                                     |                          |
| <b>Presented by</b>  | Inese Rowbotham – Chief Operating Officer<br>Kate Hannam – Service Director Morriston Hospital Group  |                          |                                     |                          |
| <b>Freedom of Information</b>                                      | Open  |                          |                                     |                          |
| <b>Purpose of the Report</b>                                       | This report informs the Finance and Performance Committee of the current and historic performance against key performance indicators for Swansea Bay theatres.  |                          |                                     |                          |
| <b>Key Issues</b>  | <p>Effective and efficient theatres are key requisites to the sustainable delivery of key access standards.</p> <p>Theatre utilisation and efficiency is complex and affected by multiple factors both within and outside of the theatre environment, which will impact on the ability to utilise all available operative time effectively.</p> |                          |                                     |                          |
| <b>Specific Action Required</b><br><i>(please choose one only)</i> | <b>Information</b>  | <b>Discussion</b>        | <b>Assurance</b>                    | <b>Approval</b>          |
|  | <input type="checkbox"/>  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <b>Recommendations</b>   | <p>Members are asked to:</p> <p>Receive and note the current performance and the actions being taken to improve the overall performance in a sustainable and consistent manner.</p>   |                          |                                     |                          |

## Theatre Efficiency

### 1. Introduction

The following paper provides an update to the Finance and Performance Committee on the Theatre efficiency paper received in September 2020. The paper:

- Provides a current update on the status of the Health Board Theatre Programme, in comparison to the 19/20 position;
- Summarises a range of productivity and efficiency metrics by Hospital site;
- Provides an overview of the work being undertaken by the Health Care System Engineering team to improve the surgical and theatre pathway;
- Updates on the approach agreed to the future allocation of theatre capacity;
- Outlines the work to quantify the demand and capacity requirements for all health board surgical services; and
- Finally provides an overview of the key next steps in relation to theatre capacity and efficiency.

### 2. Background

The Health Board has a total of 33 operating theatres located across three Hospital sites.

There are 20 theatres in Morriston Hospital, 6 theatres in Singleton Hospital along with 2 theatres in the Day Surgical Unit and 5 operating theatres located in Neath and Port Talbot Hospital. The total service has a funded workforce establishment of circa 450 WTE.

In October 2020 the decision was made to bring all three theatre services under the management of the Clinical Support Services Division at Morriston Hospital Delivery Group.

Pre pandemic the Health Board had a theatre programme made up of 352 weekday sessions per week across three hospital sites. Any reference to sessions in the paper refers to half day theatre sessions. During 19/20 an average of 244 weekday theatre sessions per week was delivered (60% across the three hospital sites), the reasons for non-delivery of theatre sessions would have been multi-factorial and included:

- Access to beds;
- Surgeon/Anaesthetist/Theatre staffing unavailability;
- Equipment failures; and
- Audit days.

| Site         | No of theatres | 19/20 Trauma/CEPOD | 19/20 Elective lists | Total 19/20 | 19/20 % Utilisation | 19/20 Delivered sessions |
|--------------|----------------|--------------------|----------------------|-------------|---------------------|--------------------------|
| Morr         | 20             | 51                 | 174                  | 225         | 74.90               | 168                      |
| Singleton    | 8              | 4                  | 73                   | 77          | 57.67               | 44                       |
| NPT          | 5              |                    | 50                   | 50          | 62.99               | 31                       |
| <b>Total</b> | <b>33</b>      | <b>55</b>          | <b>297</b>           | <b>352</b>  | <b>59.75</b>        | <b>244</b>               |

As at November 2021 the Theatre Programme includes a total of 266 weekday sessions per week. The theatre programme in place now is delivered across 50 weeks of the year. The split by Hospital site is summarised in the table below.

| Site         | No of theatres | 19/20 Trauma/CEPOD | 19/20 Elective lists | Total 19/20 | 19/20 utilisation | Delivered sessions | Current - Trauma/CEPOD (Nov 2021) | Current Elective (Nov 2021) | Total current (Nov 2021) |
|--------------|----------------|--------------------|----------------------|-------------|-------------------|--------------------|-----------------------------------|-----------------------------|--------------------------|
| Morr         | 20             | 51                 | 174                  | 225         | 74.90             | 168                | 60                                | 92                          | 152                      |
| Singleton    | 8              | 4                  | 73                   | 77          | 57.67             | 44                 | 14.5                              | 53.5                        | 68                       |
| NPT          | 5              |                    | 50                   | 50          | 62.99             | 31                 |                                   | 46                          | 46                       |
| <b>Total</b> | <b>33</b>      | <b>55</b>          | <b>297</b>           | <b>352</b>  | <b>59.75</b>      | <b>244</b>         | <b>74.5</b>                       | <b>191.5</b>                | <b>266</b>               |

There has been a planned increase post pandemic in the number of sessions allocated to unscheduled / emergency surgery (from 55 sessions per week to 74.5 sessions per week) to facilitate more timely access for emergency surgery and trauma patients. In addition, some ambulatory trauma activity for orthopaedics and plastic surgery has been relocated from Morriston Hospital to Singleton Hospital Day Unit.

This increase in unscheduled theatre sessions has delivered a reduction in the pre-operative length of stay for patients and also for those patients who do not need access to Morriston Hospital for their emergency surgery, the ability to have this undertaken on a semi elective ambulatory basis in Singleton Hospital.

In addition to the baseline theatre programme currently in place the Health Board has commissioned an insourcing company (HBSUK) to support delivery of additional operating lists on the weekend to commence from 27<sup>th</sup> November 2021. Initially the arrangement will focus on the delivery of an additional 40 all day theatre lists for Orthopaedics and hand surgery procedures. The Health Board is also exploring the option of expanding this arrangement into Gynaecology.

### 3. Theatre Efficiency

Theatre utilisation and efficiency is complex and affected by multiple factors, which sit within and outside of the theatre environment. The elements that contribute to the efficient and effective utilisation of theatres include:

- Listing of patients for surgery;
- Robust pre-assessment to ensure patients are fit for surgery at the specified hospital site;
- Intelligent scheduling of cases onto the theatre list to maximise productivity and throughput of available theatre lists;
- Sufficient beds and trolley capacity to meet the demand;
- The right level of ward staffing to admit patients in a safe and timely manner on the day of their surgery;
- Streamlined in-theatre processes for the calling/holding and receiving of patients ahead of their surgery;
- Sufficient workforce in place to run the theatre for the specified duration of the list;
- Sufficient capacity to recover patients ahead of returning to the ward;
- Regular review of patients to ensure timely and safe discharge from hospital to maximise utilisation of available elective beds.

**Appendix 1** provides a more detailed overview by hospital site for reference period September 2018 to end of October 2021 across a number of measures:

- Total sessions delivered;
- Total cases delivered;
- Average touch time per case by site;
- Late starts and early finish analysis
- In session utilisation
- Inpatient and day case turnaround time
- Average no of cases per session comparison between 19/20 and current.

The key headlines are:

- The total number of sessions and cases delivered per week across the three hospital sites has increased incrementally since the first wave of COVID.
- There is a more consistent delivery of the theatre programme across all hospital sites since COVID, with less week on week variation;
- Day case numbers across the three hospital sites have reduced since COVID which reflects the focus on higher priority, time urgent complex cases;
- Access to sufficient beds to admit all planned cases and to push list productivity is an issue in Morriston Hospital. The number of lists which finish early has increased since COVID and the opening of the single multi-specialty surgical ward.

- The number of inpatients undertaken in Singleton Hospital since COVID has increased compared to the pre-COVID position which is a reflection of undertaking more complex surgery on that Hospital site, in line with Health Board Transformation plans;
- The turnaround time for inpatients has increased significantly across all three Hospital sites.
- There are examples in some specialties in Singleton Hospital of significant overruns and significant early finishes. A different configuration of theatre sessions being explored to establish more three session day lists.

#### **4. A system view of Improvement delivery and Performance Monitoring**

It is important to recognise that the measures contained in this update are the traditional theatre efficiency measures used in NHS Wales and they do not represent the collaborative, cross system work that is being undertaken with the Healthcare Systems Engineering (HCSE) Team. The focus going forward is on creating an efficient and sustainable surgical pathway, of which theatres is a key component part of that system. The measures we use to monitor performance and drive sustainable improvement will develop as part of that programme of work.

It also brings in:

- “Smart” scheduling, whereby the modelling tool creates the most efficient theatre list using the historical data of the procedure type/time, surgeon etc
- Workforce modelling that aligns demand at ward level with the most efficient rostering of the staff
- Bed profiling that aligns the mix on the ward with the “best fit” from a length of stay perspective

The Chief Executive has committed to enhancing the HCSE function within the Health Board to ensure it is fit for purpose and provides a sustainable resource for our pan Health Board efficiency programme.

#### **5. Allocation of future Theatre capacity**

Following the first wave of COVID the allocation of theatre sessions was targeted at unscheduled care demand and in delivering planned care treatment for those patients who needed to access surgery within 1 month (priority 2 patients). This approach to theatre allocation remained in place until September 2021.

In September 2021 the Planned Care Board approved a set of enhanced principles for the allocation of future theatre capacity. The guiding principles included the following:

1. The current allocation of emergency (unscheduled) sessions i.e. CEPOD and trauma list will remain subject to a review of their current utilisation
2. The overall allocation of theatre capacity will include sessions commissioned in independent sector on a “facilities only” basis.

3. Wherever possible a surgical specialty will not be allocated sessions on more than two sites
4. Where the opportunity arises specialties that provide a service on a regional basis should utilise theatre capacity in other health board as part of their allocation.
5. Allocation for each specialty will be calculated based on:
  - a. 2019/20 utilisation (elective surgery only) compared to allocated sessions and current allocation
  - b. Opportunities to increase utilisation compared to allocated sessions
  - c. Potential productivity gains (theatre utilisation)
  - d. Opportunities to meet WHSCC commissioned and regional/specialist services (inc. SLAs and LTAs) contract targets
  - e. Immediate additional capacity is required to maintain training status (trainee posts)
  - f. Overlay of RCS clinical prioritisation and clearance times for Category 2 patients
6. Specialties who have had limited access to surgery during the pandemic will be prioritised for any additional sessions that may be available following the above.
7. Each specialty will prioritise the patients for its allocation of theatres taking consideration of the following
  - a. Clinical prioritisation (including addressing the backlog of cancer patients)
  - b. Meeting WHSCC contract targets
  - c. Addressing Stage 5 backlogs (especially in the top 10 long waiting specialties)
  - d. Meeting BADS targets (upper quartile)

Another key strand of work that links closely with theatre capacity requirements is the development of surgical specialty level demand and capacity plans. The Health Board currently does not have formal, signed off demand and capacity plans at specialty level, which is an organisational and service delivery risk. The CEO has been explicit in his expectation that plans will be developed at specialty and Service Group level and that these plans will form the driver for theatre capacity requirements going forward.

## **6. Next key steps**

The next key steps are:

Phased delivery of an additional 26 theatre sessions per week into the Health Board Theatre Programme between now and the end of March 2022. 10 sessions to be in place by end of November 2021 to include:

- 4 insourcing sessions per week average for orthopaedics
- 2 sessions per week for a time limited basis to support training of staff in Singleton Hospital for breast surgery.
- 2 sessions per week for Vascular surgery

- 2 sessions per week for Ortho-plastic Surgery.

The timeline for the remaining 16 sessions will be confirmed in the next two weeks.

A paper is being finalised to consider options to deliver a small increase in Green Elective beds in Morriston Hospital to improve the utilisation of available theatre lists, required for patients who need to have their surgery in Morriston Hospital.

Continued focus via the Health Care Systems Engineering improvement programme of delivering sustainable resource improvements across the surgical pathway to deliver increases access to surgery for our local and regional patient population.

| <b>Governance and Assurance</b>  |   |                                     |
|--|---|-------------------------------------|
| <b>Link to Enabling Objectives</b><br><i>(please choose)</i>   | <b>Supporting better health and wellbeing by actively promoting and empowering people to live well in resilient communities</b> |                                     |
|  | Partnerships for Improving Health and Wellbeing   | <input type="checkbox"/>            |
|  | Co-Production and Health Literacy   | <input type="checkbox"/>            |
|  | Digitally Enabled Health and Wellbeing  | <input type="checkbox"/>            |
|  | <b>Deliver better care through excellent health and care services achieving the outcomes that matter most to people</b>         |                                     |
|  | Best Value Outcomes and High Quality Care   | <input checked="" type="checkbox"/> |
|  | Partnerships for Care   | <input type="checkbox"/>            |
|  | Excellent Staff   | <input type="checkbox"/>            |
|  | Digitally Enabled Care  | <input type="checkbox"/>            |
|  | Outstanding Research, Innovation, Education and Learning  | <input type="checkbox"/>            |
| <b>Health and Care Standards</b>   |   |                                     |
| <i>(please choose)</i>   | Staying Healthy   | <input type="checkbox"/>            |
|  | Safe Care   | <input checked="" type="checkbox"/> |
|  | Effective Care  | <input checked="" type="checkbox"/> |
|  | Dignified Care  | <input checked="" type="checkbox"/> |
|  | Timely Care   | <input checked="" type="checkbox"/> |
|  | Individual Care   | <input checked="" type="checkbox"/> |
|  | Staff and Resources   | <input checked="" type="checkbox"/> |
| <b>Quality, Safety and Patient Experience</b>  |   |                                     |
| <ul style="list-style-type: none"> <li>• Timely and effective care: People of all ages to have timely access to admission for surgery. When arranged to have confidence in being admitted with the full knowledge of the procedure and its implications as appropriate.</li> <li>• Patient outcomes: to have outcomes comparable with the best in Europe.</li> </ul> |   |                                     |
| <b>Financial Implications</b>  |   |                                     |
| There are no additional financial implications identified as part of this report. However, efficient and effective utilisation of our theatre resources will deliver value for money from the Health Board in the use of its available and non recurrent resources.  |   |                                     |
| <b>Legal Implications (including equality and diversity assessment)</b>  |   |                                     |
| There are no legal implications to consider.   |   |                                     |
| <b>Staffing Implications</b>   |   |                                     |

To run an effective theatre service requires access to skilled theatre staff, surgeons and anaesthetists along with other key resources along the surgical pathway including referral from primary care, through to the outpatient clinic, pre-assessment and admission for surgery.

**Long Term Implications (including the impact of the Well-being of Future Generations (Wales) Act 2015)**

Optimising theatre capacity across the Health Board will support an improved delivery against waiting time standards, whilst ensuring the effective deployment of resources reducing variation in cost and resources.

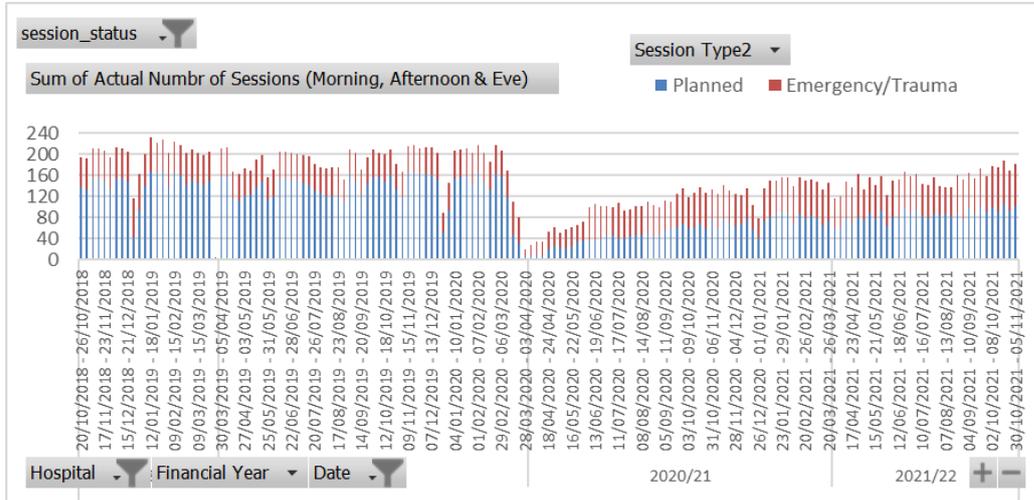
|                       |   |
|-----------------------|---|
| <b>Report History</b> | Theatre Performance report September 2020 |
|-----------------------|---|

|                   |   |
|-------------------|---|
| <b>Appendices</b> | Appendix 1 – Theatre efficiency measures by Hospital site |
|-------------------|---|

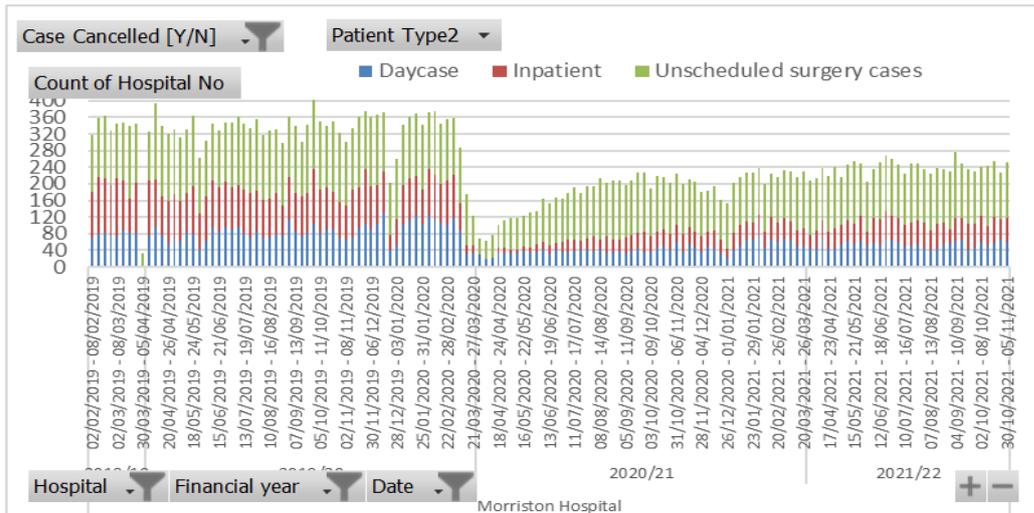
## Theatre Productivity and Efficiency Measures

### Morrison Hospital

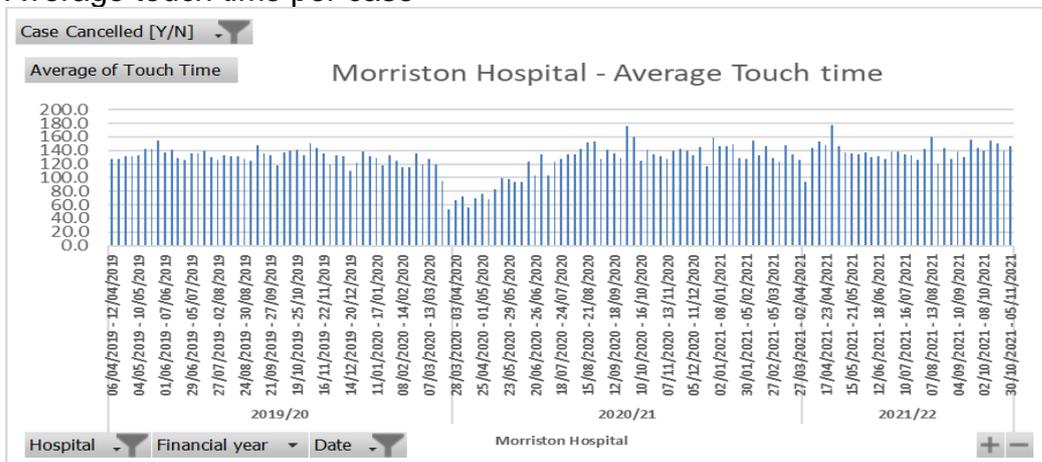
#### Total sessions



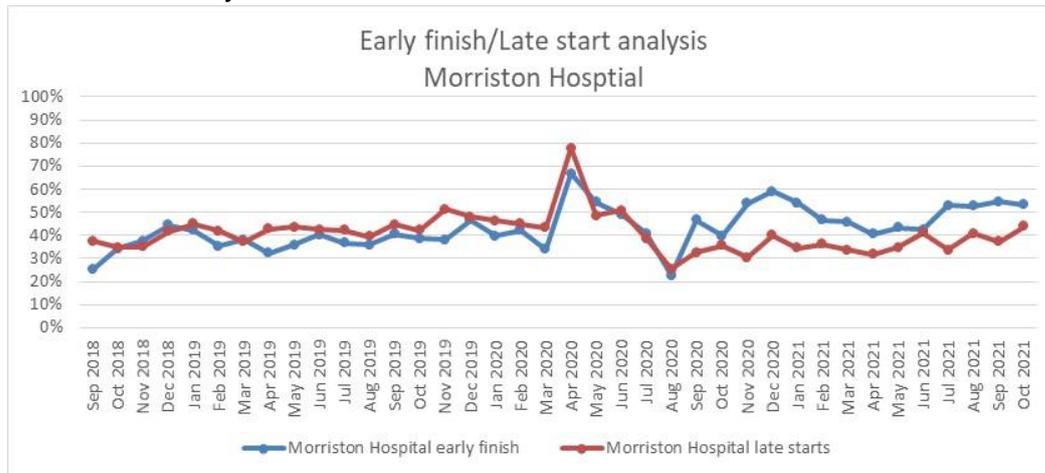
#### Total cases



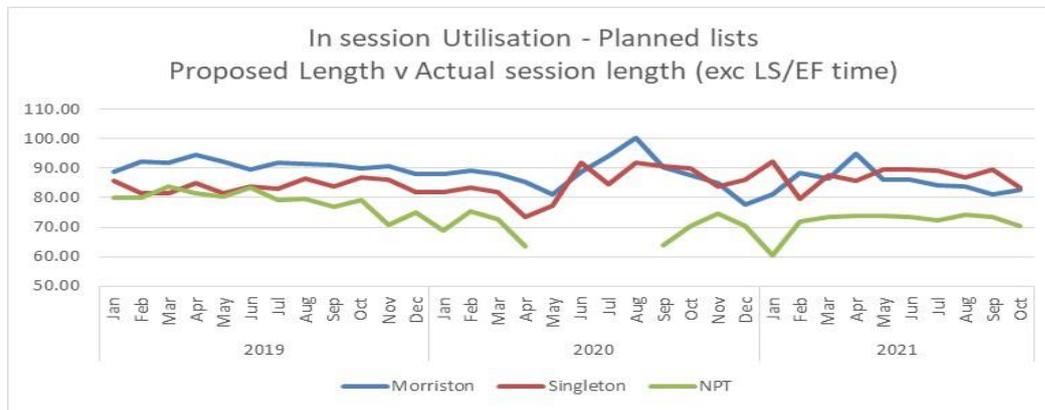
#### Average touch time per case



## Late starts/Early Finish



## In Session Utilisation



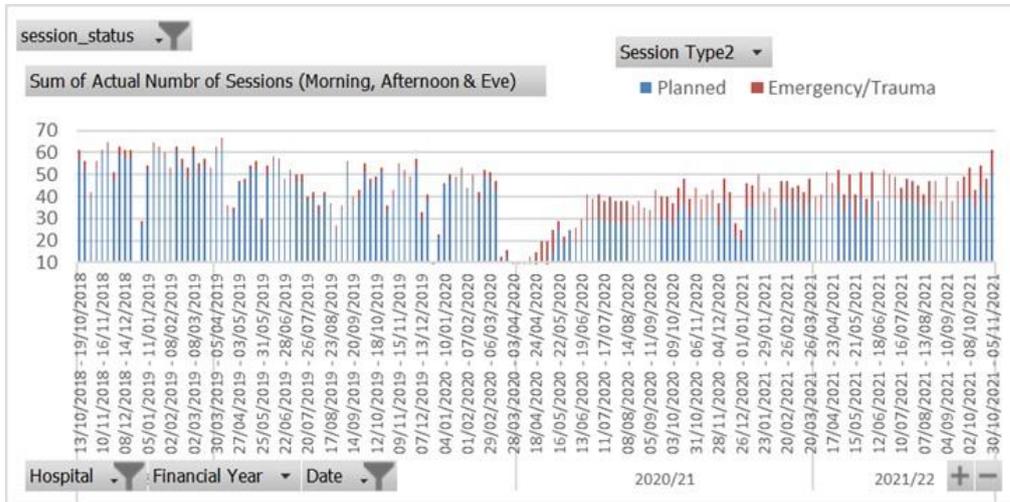
## Turnaround time comparison

|          | April 2019 to Feb 2020 |                    | April 2021 to October 2022 |                    | Change in turnaround time |          |
|----------|------------------------|--------------------|----------------------------|--------------------|---------------------------|----------|
| Hospital | IP Turnaround Time     | DC Turnaround Time | IP Turnaround Time         | DC Turnaround Time | Inpatients                | Daycases |
| MOR      | 52.5                   | 31                 | 59                         | 45                 | 6.5                       | 14       |

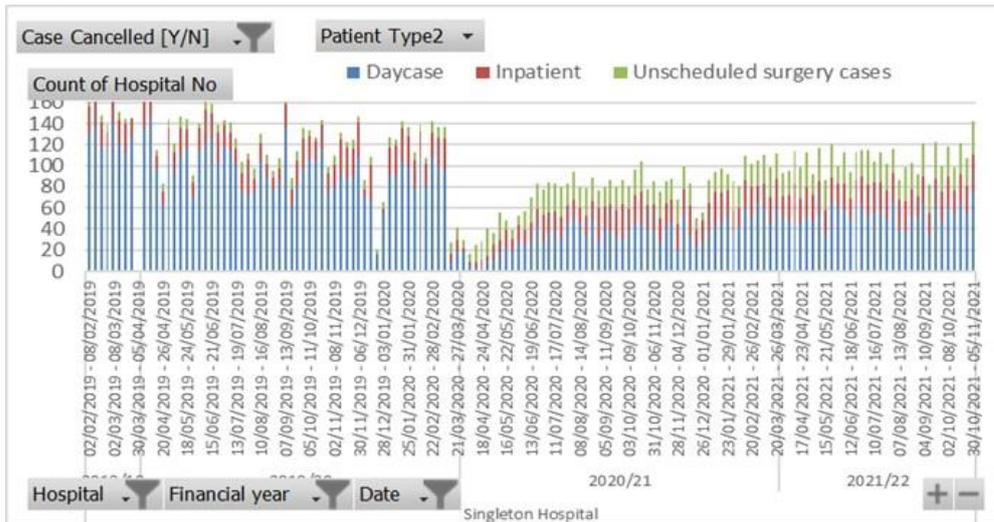
The average number of cases per session delivered pre COVID was 2.53 whilst the current average case per session delivered for period April 2021 to October 2021 is 1.89 cases.

# Singleton Hospital

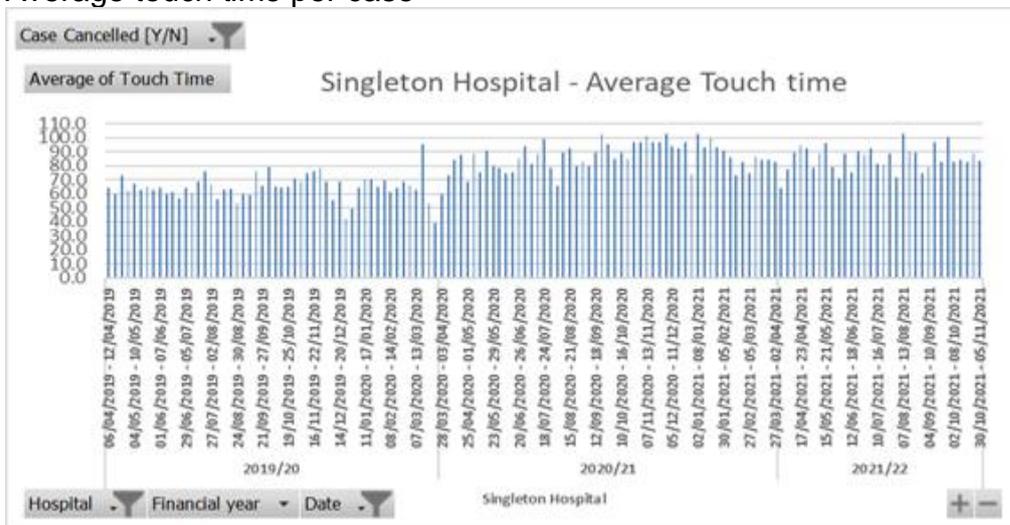
## Total sessions



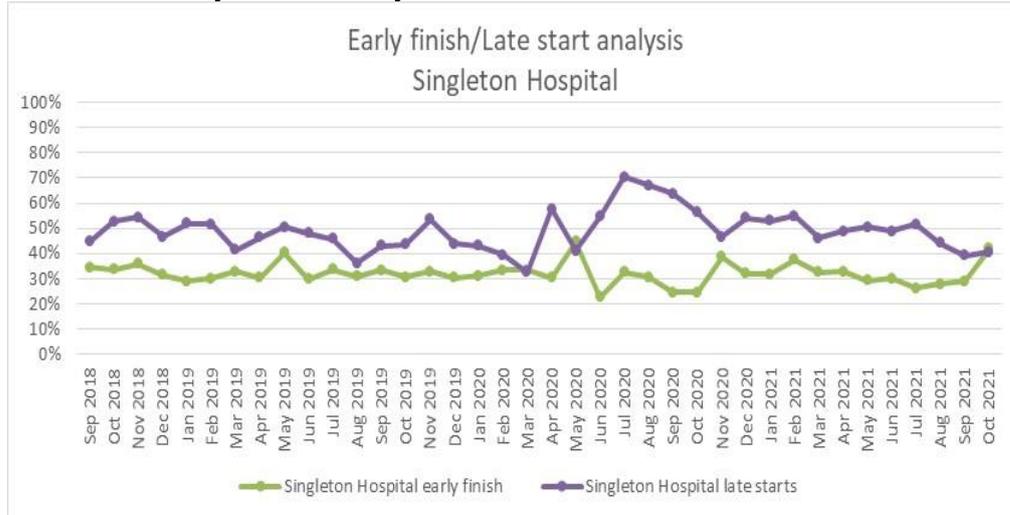
## Total cases



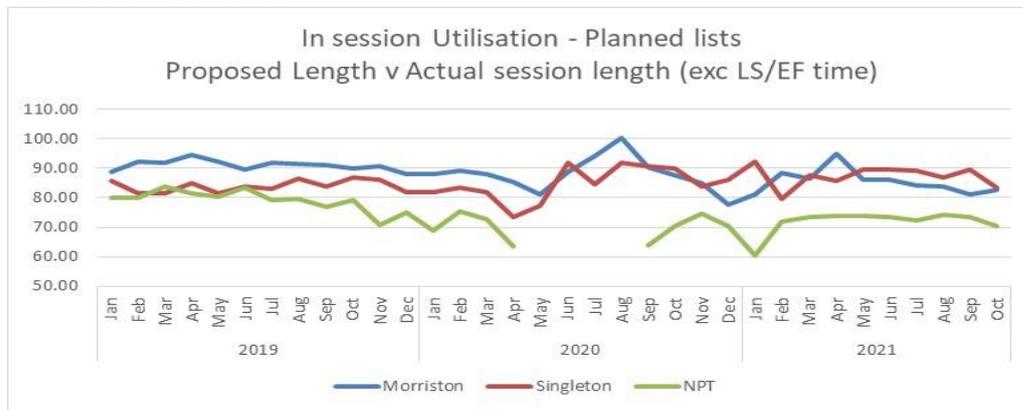
## Average touch time per case



## Late Start/Early Finish analysis



## In Session Utilisation



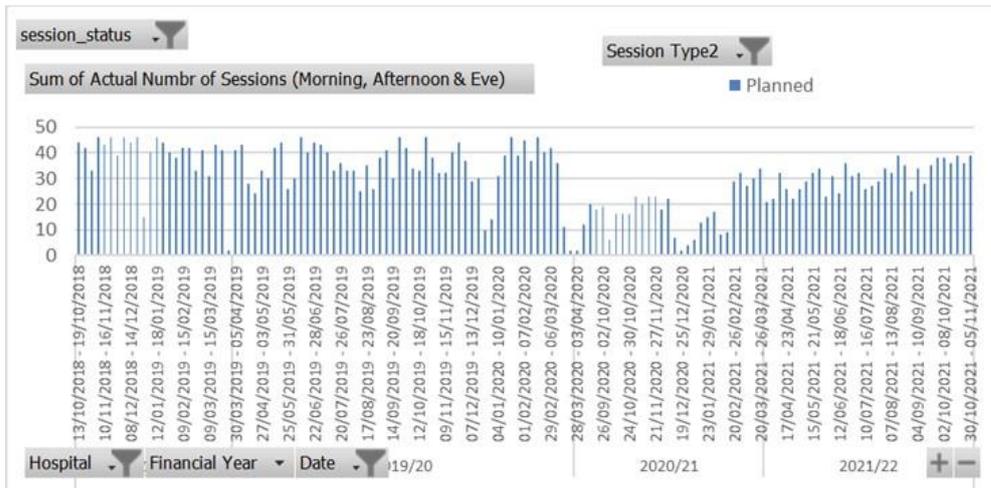
## Turnaround analysis

| Hospital | April 2019 to Feb 2020 |                    | April 2021 to October 2022 |                    | Change in turnaround time |          |
|----------|------------------------|--------------------|----------------------------|--------------------|---------------------------|----------|
|          | IP Turnaround Time     | DC Turnaround Time | IP Turnaround Time         | DC Turnaround Time | Inpatients                | Daycases |
| SNG      | 37                     | 17                 | 54                         | 20                 | 17                        | 3        |

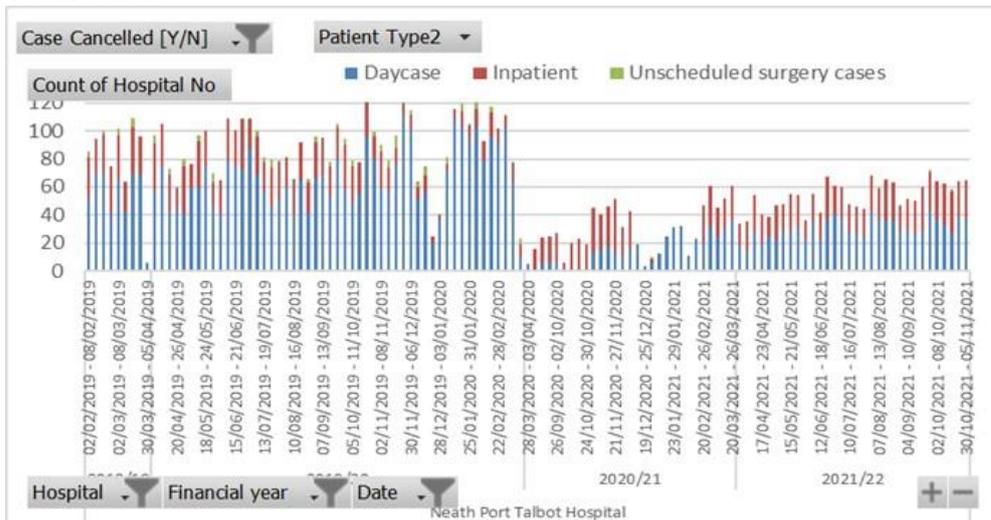
Average cases per session pre COVID was 2.84 whilst the current average case per session for period April 2021 to October 2021 is 2.52 cases.

# Neath and Port Talbot Hospital

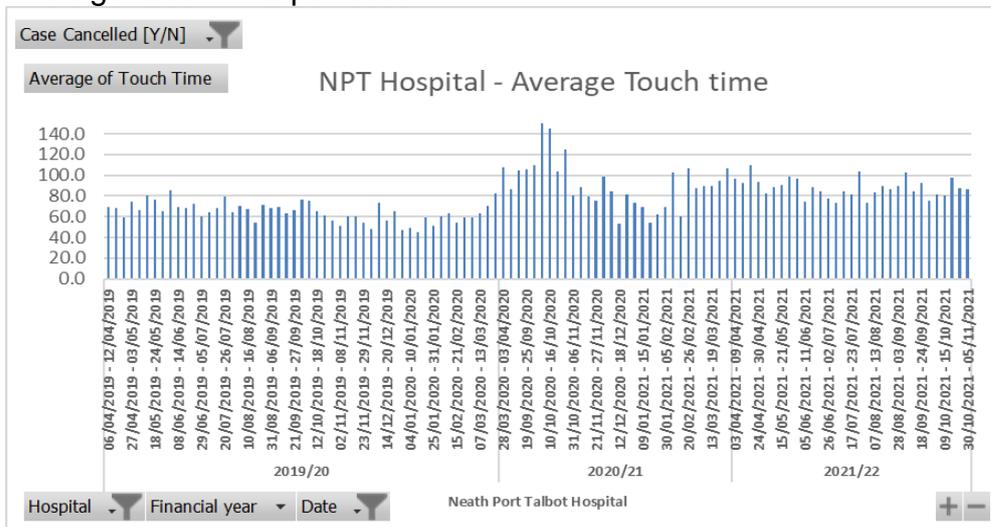
## Total sessions



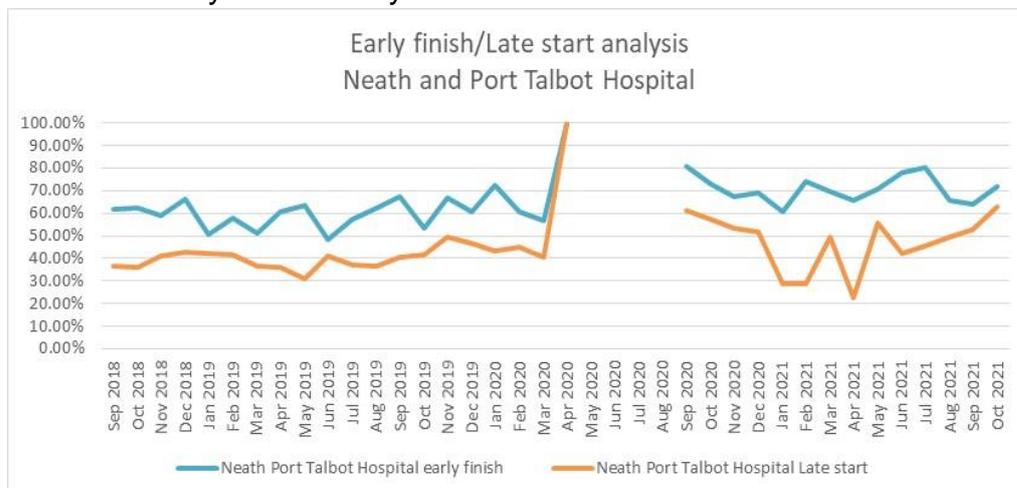
## Total cases



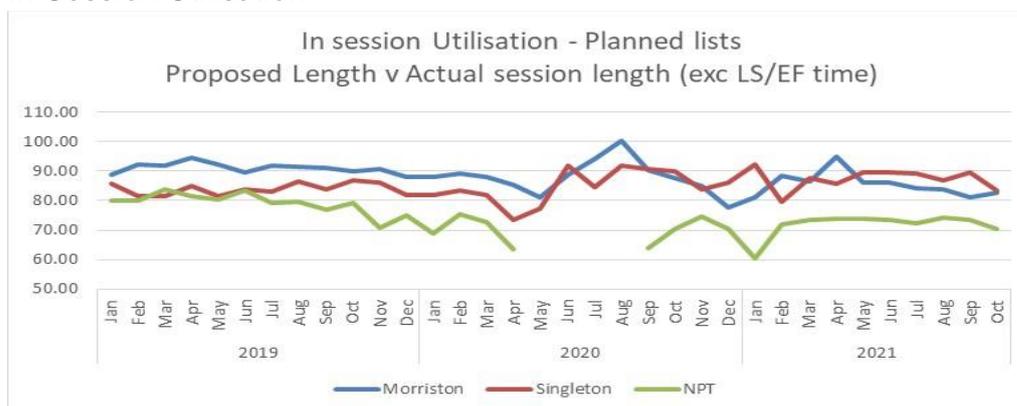
## Average touch time per case



## Late start/Early Finish analysis



## In Session Utilisation



## Turnaround analysis

| Hospital | April 2019 to Feb 2020 |                    | April 2021 to October 2022 |                    | Change in turnaround time |          |
|----------|------------------------|--------------------|----------------------------|--------------------|---------------------------|----------|
|          | IP Turnaround Time     | DC Turnaround Time | IP Turnaround Time         | DC Turnaround Time | Inpatients                | Daycases |
| NPT      | 41                     | 23                 | 58                         | 30                 | 17                        | 7        |

Average cases per session pre COVID was 3.67 whilst the current average case per session for period April 2021 to October 2021 is 2.59 cases.