
The following 46 pages comprise an abridged version of a Report of the Royal College of Surgeons of England (‘RCS’) in relation to an Invited Review of Thoracic Surgery Services in Wales that was commissioned by the Welsh Health Specialised Services Committee (‘WHSSC’) in 2016 to consider strategic service issues. The full Report was delivered to WHSSC in January 2017. The abridged version of the Report was prepared by WHSSC.

In addition to strategic service issues, the Report included information gathered, conclusions and a recommendation that related to potential patient safety issues. This material has been removed from the following abridged version of the Report because the subject matter is based on personal identifiable information. WHSSC has addressed the related potential patient safety issues, as a priority, with the service provider.

The sections of the full Report that have been revised to generate the abridged version of the Report follow:

<table>
<thead>
<tr>
<th>Section</th>
<th>Revision</th>
<th>Section</th>
<th>Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4, 3.5, 3.7 and 3.8</td>
<td>Names removed</td>
<td>6.2.29</td>
<td>Three sentences and part of two other sentences removed</td>
</tr>
<tr>
<td>6.1.8</td>
<td>Final sentence removed</td>
<td>6.2.30 – 6.2.34</td>
<td>Removed</td>
</tr>
<tr>
<td>6.2.6</td>
<td>Three sentences removed</td>
<td>6.3.27</td>
<td>Part of first sentence removed</td>
</tr>
<tr>
<td>6.2.7</td>
<td>Four sentences removed</td>
<td>7.2.12</td>
<td>Two sentences removed</td>
</tr>
<tr>
<td>6.2.9</td>
<td>Part of final sentence removed</td>
<td>7.3.3 - 7.3.5</td>
<td>Removed</td>
</tr>
<tr>
<td>6.2.11</td>
<td>Removed</td>
<td>Recommendation 4</td>
<td>Removed</td>
</tr>
<tr>
<td>6.2.22</td>
<td>Part of one sentence removed</td>
<td>----------</td>
<td>-----------------------------------------------</td>
</tr>
</tbody>
</table>

Chair/Cadeirydd: Mrs Ann Lloyd, CBE
Acting Managing Director of Specialised and Tertiary Services Commissioning/Rheolwr Gyfárwyddwr Dros Dro Comisiynu Gwasanaethau Arbenigol a Thrydyddol: Mr Stuart Davies
THE ROYAL COLLEGE OF SURGEONS OF ENGLAND

INVITED REVIEW MECHANISM

A Service Review on behalf of:

The Royal College of Surgeons of England
35 – 43 Lincoln’s Inn Fields, London WC2A 3PE

Society for Cardiothoracic Surgery
35 – 43 Lincoln’s Inn Fields, London WC2A 3PE

Report on the thoracic surgical service in Wales

Welsh Health Specialised Services Committee

12 – 14 September 2016

REVIEWERS:
Mr Alan Wood FRCS,
The Royal College of Surgeons of England

Mr John Duffy MBBS; BSc; FRCS; MS; FRCS (CTh),
Society for Cardiothoracic Surgery

Mr Sion Barnard FRCS,
Society for Cardiothoracic Surgery

Ms Jane Corfield, Lay Reviewer
Contents

1. Background to the review ........................................................................................................... 3
2. Terms of reference for the review .............................................................................................. 3
3. Details of surgical service being reviewed ............................................................................... 4
4. Royal College review team ....................................................................................................... 5
5. Interviews held .......................................................................................................................... 6
6. Information gathered by the review team ............................................................................... 11
   6.1 The background to the thoracic surgery service review in South Wales ......................... 11
   6.2 The current provision of thoracic surgery services in South Wales ............................... 14
   6.3 Cardiff Thoracic Surgery Service ...................................................................................... 22
   6.4 Mid and North Wales Thoracic Surgery Services ............................................................. 29
   6.5 Potential future models for thoracic surgery in South Wales ............................................ 30
7. Conclusions .............................................................................................................................. 34
   7.1 Future model of thoracic surgery services ........................................................................ 34
   7.2 Delivery of high quality and timely patient care ............................................................... 35
   7.3 Staffing model ..................................................................................................................... 36
   7.4 Accessibility and equitability ............................................................................................. 37
   7.5 Patient experience ............................................................................................................. 38
   7.6 Effective co-operation of services .................................................................................... 38
   7.7 Sustainability ....................................................................................................................... 38
   7.8 Cost effectiveness ............................................................................................................... 39
   7.9 Mid and North Wales ......................................................................................................... 39
8. Recommendations .................................................................................................................... 40
   Recommendations to address immediate patient safety risks ................................... 40
   Recommendations to address potential patient safety risks .................................. 40
   Recommendations for current service improvement .................................................. 40
   Recommendations for future service development ......................................................... 41
   Recommendations should a single site model be adopted .............................................. 41
   Responsibilities of WHSSC in relation to these recommendations ................................. 43
   Further contact from the Royal College of Surgeons ......................................................... 43
9. Appendices to the report .......................................................................................................... 44
10. Appendices to the Royal College review team report ......................................................... 44
11. Appendices to the Royal College review team report ......................................................... 44
11.1. Documents received as part of the Invited Review visit ................................................ 44
1. Background to the review

1.1 On 23 June 2016, Mr Daniel Phillips, Acting Managing Director of Specialised and Tertiary Services Commissioning at Welsh Health Specialised Services wrote to the Chair of the Invited Review Mechanism (IRM) to request an invited service review of the provision of thoracic surgery services in South Wales, specifically in relation to Morriston Hospital and Cardiff University Hospital. This request was considered by the Chair of the RCS IRM and representatives of the Society for Cardiothoracic Surgeons, and it was agreed that an invited service review would take place. A review team was appointed and an invited review visit was held on 12 – 14 September 2016.

2. Terms of reference for the review

The following terms of reference for this review were agreed prior to the RCS review visit between the RCS and WHSSC.

a) To assess the current provision of thoracic surgery services in Wales, with particular focus on Morriston Hospital and the University Hospital of Wales, with reference to:
   • the current model performs against published best practice
   • current patient outcomes and experience
   • which sub-specialty areas of surgery are currently being delivered
   • the services interact with other regional services
   • and how sustainable the current model is

b) To consider what a suitable future model for the provision of Thoracic Surgery Services in Wales would be, with reference to:
   • the delivery of high quality and timely patient care
   • accessibility and equitability
   • patient experience
   • sustainability (including training)
   • cost-effectiveness
   • effective co-operation with other services
   • an effective staffing model (including the wider MDT)

c) To comment on any additional issues that may arise during the review, including issues that bear relevance to Mid and North Wales Thoracic Surgery Services.

d) To make recommendations for the consideration of The Welsh Health Specialised Services Committee on the development of a commissioning plan for Thoracic Surgery in Wales.
3. Details of surgical service being reviewed

3.1 The Welsh Health Specialised Services Committee (WHSSC) is responsible for the joint planning of Specialised and Tertiary Services on behalf of Local Health Boards. WHSSC was established in 2010 by the seven Local Health Boards in Wales to ensure that the population of Wales has fair and equitable access to the full range of specialised services.

3.2 Thoracic Surgery in South Wales was provided at two different hospital sites, in Swansea and Cardiff.

3.3 Morriston Hospital, in Swansea, was responsible for delivering thoracic surgery services to Abertawe Bro Morgannwg University Health Board (ABM) and Hywel Dda University Health Board (Hywel Dda). ABM encapsulated patients from Morriston, Singleton, Neath, Port Talbot and Bridgend hospitals, equating to a population of approximately 500,000. Hywel Dda included patients from hospitals situated in Llanelli, Carmarthen, Aberystwyth and Haverfordwest, which covers a population of around 372,320 patients.

3.4 The thoracic surgery services formed part of the larger cardiothoracic department, for which Mr Pankaj Kumar was Interim Clinical Director. The department was made up of five Cardiothoracic Surgeons and two Thoracic Surgeons.

3.5 One Consultant Thoracic Surgeon was responsible for providing surgical care to patients in the Hywel Dda and Princess of Wales Hospitals, whilst the other treated patients from the ABM region. Each consultant covered a population of approximately 500,000 people.

3.6 Cardiff University Hospital provided thoracic surgery to patients served by the Cwm Taf, Aneurin Bevan and Cardiff Vale University Health Boards. This covered patients being referred from the University Hospital of Llandough, Royal Gwent, Nevill Hall, Royal Glamorgan and Prince Charles Hospitals. In total Cardiff University Hospital provided thoracic surgery services to a population of around 1.35 million people.

3.7 Similarly to the Morriston Hospital, the thoracic surgery team in Cardiff was part of the wider cardiothoracic service, which was led by Miss Indu Deglurkar. The team consisted of four Consultant Cardiac Surgeons, with one role vacant at the time of the review. There were two Consultant Thoracic Surgeons.

3.8 One Consultant Thoracic Surgeon was primarily responsible for treating patients covered by University of Llandough, Prince Charles and Royal Glamorgan Hospitals, whilst the other covered Royal Gwent and Neville Hall Hospitals.
## 4. Royal College review team

<table>
<thead>
<tr>
<th>Role</th>
<th>Reviewer Name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead reviewer</td>
<td>Mr Alan Wood FRCS, The Royal College of Surgeons of England</td>
<td>Mr Wood has been a consultant cardiothoracic surgeon in London for over 25 years with a particular interest in video assisted thoracic surgery. He has served on GMC fitness to practice and interim orders committees for many years and with the RCS invited review mechanism since its inception as the Rapid Response programme.</td>
</tr>
<tr>
<td>Clinical reviewer</td>
<td>Mr John Duffy MBBS; BSc; FRCS; MS; FRCS (CTh), The Society for Cardiothoracic Surgeons</td>
<td>Mr Duffy has been a consultant General Thoracic surgeon in Nottingham since 1997. He has led the Thoracic surgical service at Nottingham for more than 15 years and has been an active member of the Society for Cardiothoracic Surgeons.</td>
</tr>
<tr>
<td>Clinical reviewer</td>
<td>Mr Sion Barnard FRCS, The Society for Cardiothoracic Surgeons</td>
<td>Mr Barnard has been a Consultant Thoracic Surgeon for 17 years in Freeman Hospital Newcastle. He has been a member of the National Cancer Intelligence Network, and has a strong interest in Cardiothoracic training, being SAC Chairman from 2013-2016. He has taken part in the Keogh Reviews in the past.</td>
</tr>
<tr>
<td>Lay reviewer</td>
<td>Ms Jane Corfield</td>
<td>Ms Corfield has over 25 years’ experience in the fields of Communications, Public Relations and Management. She is a founder member of the Royal College of Surgeons Patient Liaison Group and of the Rapid Response programme. She has served as a lay reviewer for the Invited Review Mechanism since its inception.</td>
</tr>
</tbody>
</table>
5. Interviews held

Mr Daniel Phillips  Acting Managing Director WHSSC
Ms Sian Lewis  Acting Medical Director
Mr Ian Langfield  Acting Director of Planning
Dr Ian Williamson  Respiratory Physician ABUHB
Ms Clare Lines  Assistant Director for Commissioning, Powys Health Board
Mr Peter Richards  Planning and Performance, Powys Health Board
Mr Neil Miles  Planning and Performance, Powys Health Board
Mr Gareth Collier  Respiratory Physician, Hywel Dda UHB
Dr Diane Parry  President of Welsh Thoracic Society
Dr Ben Hope-Gill  Respiratory Physician
Dr Gareth Collier  Chest Physician
Mr Keith Jones  Lead Cancer Senior Manager
Ms Clare Jenkins  Acting CEO, Board of Community Health Councils
Mr Michael Shackcloth  Clinical Lead of Thoracic Surgery
Mr Tony Wilding  Chief Operating Officer
Dr Caroline Williams  Respiratory Medicine, Ysbyty Glan Clwyd
Dr Sakkarai Ambalavanan  Respiratory Medicine, Ysbyty Glan Clwyd
Dr Anna Mullard  Consultant Medical Oncologist, Ysbyty Gwynedd
Dr Neil McAndrew  Consultant Chest Physician, Ysbyty Gwynedd
Dr Robin Poyner  Consultant Chest Physician, Wrexham Hospital
Ms Tersa Humphreys  General Manager, ABMUHB
Mr Pankaj Kumar  Interim Clinical Director for Cardiothoracics
Ms Helen Davies  Directorate Nurse Manager, ABMUHB
Dr Martin Rolles  Consultant Clinical Oncologist and Health Board lead Clinician, ABMUHB
Ms Nicola Dickens  Theatre Scrub Sister, ABMUHB
Mr Jason Hoskins  Operational Manager Anaesthetics
Dr Rachel Barlow  National Programme Lead for Lung Cancer
Mr Francois Lhote  Consultant Thoracic Surgeon
Mr Ira Goldsmith  Consultant Thoracic Surgeon
Dr Umiar Aslam  Cardiac Registrar
Dr Ahmed Ajzan  Thoracic Surgeon
Mrs Joanne Mahon  Physiotherapy Manager – Swansea Locality
Dr Mike Gilbert  Consultant Anaesthetist
Dr Ahmed Ajzan  Specialist Registrar
Dr Umair Aslam  Specialist Registrar
Dr Rhian Finn  Lung Cancer Lead (West)
Dr Madhu Shetty  Lung Cancer Lead (West)
Dr Martin Sevenoaks  Lung Cancer Lead (East)
Dr Graham Shortland  Medical Director, CUH
Mr Nick Gidman  Directorate Manager
Ms Sian Williams  Senior Nurse, Cardiac Services
Mr Jonathan Kell  Clinical Board Director
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms Zoe Morgan</td>
<td>Physio Lead</td>
</tr>
<tr>
<td>Ms Cath Von Oppell</td>
<td>Case Manager</td>
</tr>
<tr>
<td>Ms Emma King</td>
<td>Case Manager</td>
</tr>
<tr>
<td>Mr Adam Cairns</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>Dr Peter O’Callaghan</td>
<td>Clinical Director</td>
</tr>
<tr>
<td>Mr Kevin Nicholls</td>
<td>Service Manager</td>
</tr>
<tr>
<td>Miss Malgorzata Kornaszewska</td>
<td>Consultant Thoracic Surgeon</td>
</tr>
<tr>
<td>Mr Ainis Pirtnieks</td>
<td>Consultant Thoracic Surgeon</td>
</tr>
<tr>
<td>Ms Jessica Castle</td>
<td>Head of Operations and Delivery</td>
</tr>
<tr>
<td>Miss Indu Deglurkar</td>
<td>Consultant Cardiothoracic Surgeon and Clinical Lead</td>
</tr>
<tr>
<td>Dr Joseph George</td>
<td>Specialty Trainee Year 3 – Cardiothoracic Surgery</td>
</tr>
<tr>
<td>Dr Hatam Nasse</td>
<td>Clinical Fellow – Cardiothoracic Surgery</td>
</tr>
<tr>
<td>Dr Rob Abel</td>
<td>Consultant Anaesthetist</td>
</tr>
<tr>
<td>Dr Tom Crosby</td>
<td>Clinical Director, Wales Cancer Network</td>
</tr>
<tr>
<td>Ms Sian Crowley</td>
<td>Directorate Manager Theatres</td>
</tr>
<tr>
<td>Ms Alison Jenkins</td>
<td>Recovery Nurse</td>
</tr>
<tr>
<td>Ms Leanne Cross</td>
<td>Anaesthetic Practitioner</td>
</tr>
<tr>
<td>Ms Karen Sergeant</td>
<td>Staff Nurse Scrub</td>
</tr>
<tr>
<td>Ms Lorraine Kruger</td>
<td>Clinical Lead Cardiac Thoracic Theatre</td>
</tr>
</tbody>
</table>
6. Information gathered by the review team

The following information represents a summary of the information gathered by the reviewers during the interviews held during the review visit and from the documentation submitted. It is organised under the headings of the themes that emerged. The information presented will sometimes reflect the viewpoints of those individual staff members being interviewed; it will not necessarily always reflect the views of the RCS or its reviewers on these circumstances.

6.1 The background to the thoracic surgery service review in South Wales

Background to the review

6.1.1 Healthcare in South Wales was commissioned by WHSSC, which has the jurisdiction to decide where services should be based and how resources should be allocated. The reviewers were advised that healthcare in Wales was high on the political agenda with the Welsh Government closely involved in healthcare strategy across the country.

6.1.2 There had been some movement to centralise different services at one site within South Wales. The review team heard how neurosurgery was being performed solely at Cardiff University Hospital, whilst plastic and reconstructive surgery had been centralised at the Morriston Hospital. The rationale behind this was said to be that the quality and delivery of care provided to patients was improved when services and resources were centralised in one site as opposed to being spread across several sites.

6.1.3 There had been some discussion regarding the reconfiguration of thoracic surgery services for some time. The basis of this was that both thoracic surgery services had been underperforming in comparison to national and European standards. There had been previous attempts to review thoracic surgery for South Wales however there was no action borne out of the findings of the previous reports. The review team did not have sight of all these reports.

Resection rates in South Wales

6.1.4 The review team heard that lung cancer outcomes in Wales were amongst the poorest in Europe. Interviewees were specifically concerned that the resection rates for Wales were lower than the rest of Europe, which they felt may adversely affect survival rates for lung cancer. The WHSSC had set the aim for the lung cancer resection rate to be among the upper quartile for the UK within the coming years. The resection rate for South Wales for 2015/16 was 14%, up from 11% in 2012/2013. Cardiff University Hospital reported a resection rate of around 16%, whilst Morriston Hospital reported a resection rate of around 15%. The aim of a 17% resection rate
was set for 2016/17 and a ‘task and finish’ group had been put together by WHSSC to help address resection rates.

6.1.5 There was some level of uncertainty regarding the cause of the low resection rates in South Wales. One suggested cause was that it was due to patients presenting late, having co-morbidities and generally being a population of patients unsuited to undergoing surgery. This meant that some patients considered at MDT meetings had cancers that were too advanced to be surgically treated. There had been some attempt to address this with public awareness campaigns being developed to encourage the public to come forward if they were exhibiting symptoms of lung cancer.

6.1.6 Some interviewees considered that the ethos of MDT meetings could have previously had a bearing on the resection rates. In particular, participants at previous meetings were said to have had a tendency to analyse which patients could have resections whereas there was more recently a view adopted that resections should be offered to everyone unless there was a significant reason not to. Consequently there were more patients with poor performance status and more radical cases undergoing resections. There was some difference in opinion about this change, with some believing that this has improved resection rates whilst others asserting that risky patients can sometimes be re-staged by the time of the operation and turned down for surgery at that stage.

6.1.7 Capacity problems were considered instrumental in causing the poor resection rate, with the average wait time from accepting the patient in clinic to surgery being 5 – 6 weeks. It was alleged by some interviewees that patients were consistently breaching the 31 and 62 day limit for referral, which was somewhat supported by the breach data for the respective hospitals. Interviewees at the Swansea site were in agreement that referring patients to hospital from West Wales could be particularly challenging. However, this was something that was rejected by Cardiff University Hospital, who felt that their referral to treatment rates were adequate. The effect of this delay was that patients had to be re-staged because their cancer had deteriorated by the time they were ready for surgery. Subsequently these patients would have to be referred to an additional MDT to agree a new treatment plan, as the previous plan was no longer viable. The two departments maintained that they were attempting to identify cancer patients earlier so that they can be moved along the patient pathway as quickly as possible but that a lack of resources and capacity did undermine the success of this.

6.1.8 In Swansea there was some suggestion that there was a disparity between the resection rates of the two consultant thoracic surgeons who attended the MDT meetings. It was contended that in 2009/2010 the resection rate was 20%; which was achieved by merging the West Wales MDT meetings. This rate apparently decreased to 15% following changes in the consultant thoracic surgeons servicing the MDT. There was also a large disparity in resection rates for the local MDTs, for example there was a resection rate of 24% at Prince Charles Hospital compared to
6% for patients presenting at Morriston Hospital. This was considered to be unusual, as resection rates for central hospitals tended to be higher than at peripheral sites.

6.1.9 There was some concern regarding the accuracy of the resection rate data, with suggestion that this may not have been recorded correctly, thus giving the illusion that resection rates were worse than was actually the case. However a number of other interviewees rejected this idea, submitting that data collection was generally good with no issues being flagged. Furthermore it was considered that the MDT leads for Swansea were fastidious at looking into data and therefore it was likely that the collected data sets were correct.

Population

6.1.10 The review team were provided with information regarding the population making up South Wales. The Swansea site covered a largely rural population with some more concentrated areas like Port Talbot. Cardiff University Hospital covered the more built up areas of Cardiff and Newport as well as more rural surrounding areas. Historically there was said to have been poor patient health and co-morbidities within South Wales. It was also suggested that the socio-economic factors contributed towards poor health, with patients from the deprived areas of South Wales typically having less access to facilities such as chemotherapy. Interviewees did, however, confirm that that the Welsh Government had invested funding to tackle cancer, particularly to improve resection rates and to reduce death rates.

Financial Investment

6.1.11 The review team were provided with a copy of the details of the funding allocated from WHSSC to thoracic surgery services in South Wales. It was evident that the Cardiff site received a significantly higher investment from WHSSC, which was considered to be in part because of the larger size of the catchment population being treated by Cardiff. The budget for Cardiff for 2016/2017 was £3.28 million whilst Morriston Hospital received £2.12 million, which was significantly higher than funding received in previous years for the services. Interviewees informed the review team that money was given to each service so that they could meet the targets that were set by WHSSC.

6.1.12 Interviewees at both Morriston and Cardiff University Hospital sites stated that they were over-performing in relation to what was expected of them by WHSSC; however they were not receiving the full rate remuneration for over-performance. The review team heard that services were at the limit of what they could achieve based on the funding provided to them, despite pushing for additional monies. It was commented that additional operating hours for surgeons, beds and ‘pre-habilitation’ could be provided if additional funding was provided by WHSSC.
6.2 The current provision of thoracic surgery services in South Wales

Swansea Thoracic Surgery Service

Patient capacity

6.2.1 Interviewees in Swansea highlighted that staff would often be left searching for beds and that HDU beds in particular were in short supply. It was reported that operations had been cancelled as there were not the facilities available to keep the patients in overnight. This had also led to some patients being transferred to Cardiff to undergo surgery. Interviewees commented that within the hospital’s existing wards there was not enough space to accommodate beds that were required and that a dedicated ward was highly desirable. Furthermore, some interviewees also reported that the service required better access to high dependency beds as well as a higher nursing compliment. The review team were made aware that there had been a push to have same day admission for patients in order to free up some beds.

6.2.2 Interviewees reported that the length of stay of patients on the ward was longer than it should be. This was said to be partly because patients typically had to be admitted the day before surgery as they had to travel some distance for treatment. Similarly patients’ length of stay was extended following surgery also as a result of the distance patients had to travel. This consequently meant that fewer beds were available for use and patient throughput was reduced, leading to increased patient waiting times for treatment and the organisation missing SaFF targets\(^1\). The review team learnt that at the time of the review visit there were no plans to increase the amount of beds available.

Theatre Access

6.2.3 The thoracic surgeons had access to one theatre and each operated once a week. One session took place on a Tuesday from 08:00 – 20:00, whilst the other session was on Thursday from 08:30 – 18:30. The second operating day was said to be shorter as budget constraints prevented the day from being extended. Typically the surgeons would perform numerous operations including resections, biopsies and lobectomies during these sessions.

6.2.4 When questioned, interviewees confirmed that most of the lists started on time. It was said by some that, typically, there would be a team brief taking place at approximately 07:50. Operating would reportedly commence, at around 09:30 – 10:00 depending on the time required for the anaesthetist to prepare the patient. Some interviewees reported that operating could at times start late. This was said to be due to resourcing problems as opposed to any issues at consultant level.

\(^1\) Service and Financial Framework targets
6.2.5 Interviewees also commented that they were lacking resources for surgery and that on the day of surgery equipment was sometimes missing. For instance, one interviewee explained that there were a number of major, non-thoracic cases performed on Mondays, which meant that there was pressure on staff to ensure that equipment was replenished and ready for the next day. Similarly if any operating lists took place on additional days, it could be difficult to obtain the correct equipment in time. Interviewees also expressed dissatisfaction at the lack of portering services available; reporting that for some cases there was nobody available to collect the patient, meaning that this fell to the nurses or clinicians to do. When questioned further, interviewees confirmed that patients would not walk to theatre as there was resistance from management for this to be implemented. Interviewees articulated that the lack of porters could detrimentally affect surgery as it could delay start times.

6.2.6 Interviewees reported that the organisation of lists and theatre differed between the two surgeons.

6.2.7 Interviewees further noted that there were differences in operating style between the two consultants.

6.2.8 The staff at Swansea reported issues with scheduling of the theatre lists, particularly in respect of the Thursday theatre session. Interviewees reported that many of the patients treated during the Tuesday theatre sessions have epidurals as part of their treatment. The review team was advised that it was policy for epidural patients to spend two days on the HDU following the procedure; although it was the view of some that patients did not always require transfer to the HDU. This meant that patients due to be operated on during the Thursday theatre list occasionally had their sessions cancelled as there was insufficient access to HDU beds. It was considered that this policy hindered throughput and contributed towards the patient backlog. Interviewees also submitted that attempts made to extend operating hours had been rejected.

6.2.9 It appeared that there had been some discussion centred on moving surgery days to from Tuesday to Monday to improve patient care and accessibility to services. Some interviewees felt this was not viable because there were already nine theatres working on this day, many of which were involving major surgical cases. Further suggestions were put forward such as alternating days in theatre for surgeons, this was said to have been rejected on the basis that it would conflict with one of the surgeon’s arrangements.

6.2.10 A number of interviewees highlighted that some patients had had their operation delayed or cancelled as a result of lack of resources or from overbooking. To attempt to maximise the number of patients treated, operating days were often extended, however it was noted that this was not sustainable because staff fatigue may be a risk to patient safety. Both consultants have also tried to look for extra operating where possible and have taken up additional lists for which they are not
remunerated. The review team learnt that one consultant had not been taking annual leave so that patients did not have to lose their operation slots. Patients cancelled on their scheduled operating day remained in hospital until the consultant’s next operating list, which was usually the week after. Despite these cancellations, interviewees affirmed that patient complaints were rare because they had had their expectations managed prior to surgery.

### 6.2.11

Interviewees stated that the current model was not sustainable for the surgeons and was not in the best interests of patients because it often caused their operations to be delayed for longer than was necessary. For instance, it could mean that a patient was treated a full week later as opposed to just a few days later. It also meant that if a consultant was away, whole theatre lists would not be performed. Interviewees asserted that a third surgeon was required to help alleviate this issue as opposed to recommending pooled lists.

#### Surgical techniques

6.2.13 It was reported that there was a tendency to use epidurals for patients on the Tuesday list. While this was considered a reasonable approach to employ, it did require patients to stay in the HDU unit for two days following their procedure, which could pose problems in terms of bed availability for patients due to be operated upon on the Thursday session.

6.2.14 The two consultant thoracic surgeons used different techniques, with one preferring to do hybrid thoracotomies using video-assisted thorascopic surgery (VATS), on the basis that he believed this to be quicker and safer, while the other preferred the more standard VATS lobectomy. It was asserted by interviewees that there had been a drive to use new techniques and to increase the amount of VATS lobectomies but that not all staff had bought into this.

#### MDT process

6.2.15 There were three MDTs linked with Morriston Hospital, these were as follows:

- ABM Swansea consisting of Morriston, Singleton and Neath Port Talbot Hospital
- ABM Princess of Wales, which was for patients from Bridgend
- West Wales, which included patients from Llanelli-Carmarthen, Aberystwyth and Haverfordwest

6.2.16 The MDT meetings were split between the two consultants with one consultant attending the ABM Swansea MDT every Monday, whilst the other consultant attended the other MDTs every Thursday.

6.2.17 MDT meetings were predominantly conducted via video conferencing. This was
thought to be necessary due to the large geographical area being covered, making it impractical for the consultant to travel to each referring hospital. For instance, it would have taken physicians approximately an hour and a half to travel to areas like Aberystwyth. The view widely held amongst interviewees was that video conferencing generally worked well although, were it viable, having everyone in the same room would have been preferable. There were said to be some minor issues during videoconferencing calls, like transmission of images being delayed, meaning that the radiologist could potentially be reviewing images for the wrong case, albeit it was implied that these errors were always noticed and rectified.

6.2.18 There were said to have been some previous efforts to reduce the amount of MDT meetings with Neath and Port Talbot being merged into one MDT and it was further suggested that the two ABM MDTs could be merged into one MDT. These changes were said to reduce the demand on consultant surgeons to attend meetings, so that they could continue to deal with patient care.

6.2.19 The rate of consultant surgical attendance for these MDT meetings was usually high with the lowest recorded at 88%. The review team heard that one consultant surgeon avoided taking leave so that he did not miss MDT meetings. There was some discussion as to whether the presence of a nurse specialist at the MDT would help facilitate decision making when surgeons were not present and provide general support. This appeared to be an area of some disagreement with a number of staff maintaining that any nurse specialist recruited should be focussed on aftercare instead.

On-call

6.2.20 The consultant cardiac surgeons were responsible for providing the majority of on-call cover for patients. The two consultant thoracic surgeons provided on-call cover on their operating days only. It was widely considered that there was not the capacity to provide an on-call rota staffed solely by the consultant thoracic surgeons.

6.2.21 It was commented that, traditionally, the more recently appointed cardiac surgeons would provide on call cover for both cardiac and thoracic surgery. Interviewees noted that there were perhaps some differences in care provided by the various on-call surgeons, and it was intimated that alternative management may have been employed had the consultant thoracic surgeons provided the on-call care. Despite this there was said to have been no indication that those providing on-call care to date had put patient safety at risk.

6.2.22 There were some inconsistencies between emergency care provided by the two thoracic consultant surgeons. Both thoracic surgeons were said to have been willing to attend emergency on-calls and there was one example where a surgeon was contacted following the admission of a stab wound victim and he attended the patient at A&E and subsequently operated that evening. It was of concern that there may be times when a consultant surgeon may not be in close enough proximity to
provide emergency care to their own patients.

6.2.23 It was proposed by some that a joint on-call could be established, where thoracic surgeons would undertake on-call duties at Morriston and Cardiff University Hospital on a one in four basis. This was rejected by a number of interviewees who suggested that it would be too far for the surgeons to travel and that organising after-care would be problematic.

Governance

6.2.24 Interviewees suggested that there was a good level of governance within the department. There were ten audit meetings per year as well as monthly M&M meetings. These M&M meetings were held with the cardiac team, with the lead being rotated monthly. The meetings were described as fair, with issues being widely discussed.

Patient satisfaction

6.2.25 Staff in Swansea reported that patients rarely complained about their treatment and they consistently received positive feedback regarding the quality of the service provided, although there had been no patient experience initiatives conducted by the department. One interviewee did report that there were a couple of occasions where patients had asked to be transferred to Cardiff University Hospital for treatment. The complaints seen by the review team mainly related to the cancellation of operations or waiting times for treatment. Staff were said to have attempted to manage expectations by informing patients of the possibilities of delays to treatment.

Staffing

6.2.26 One of the main challenges raised by interviewees was the lack of staffing, particularly at consultant surgeon and nursing levels. There was said to have been some conversations held around reducing the demand placed on consultants and the department was said to have utilised other staff to assist in this regard. Examples were given of respiratory physicians assisting with stenting and personal assistants recording patient-related data.

6.2.27 It was confirmed that WHSSC had authorised funding for a third consultant thoracic surgeon in Swansea, but this was seen to pose some difficulties, primarily in establishing a theatre list which were said to be difficult to come by. There were also concerns raised by one interviewee that a three consultant model may undermine the consistency of consultant oversight of patients, although it was hoped that there would be a move toward a more fluid and team based approach.

6.2.28 It was highlighted that there was a lack of nurses within the department with several vacancies at the time of the review visit. There was said to have been some specific difficulty advertising for a nurse specialist role within the department as there had
been a dispute regarding the job plan for the position. It was advised that there was an appetite for progression amongst the nursing contingent; therefore it was possible that these nurses may apply for the nurse specialist roles when the job plan had been agreed and the post advertised.

Team working

6.2.29 The working relations between the two consultant thoracic surgeons at Morriston Hospital were said to be strained. It was made clear to the review team that the working styles of each consultant were very different.

6.2.30
6.2.31
6.2.32
6.2.33
6.2.34

Relationship with cardiac surgeons

6.2.35 The review team heard that whilst the working dynamics between cardiac and thoracic surgeons were generally positive there was perceived to be a tendency for management to prioritise cardiac patients over thoracic patients. Interviewees asserted that where patient beds were concerned, cardiac had a priority list and if there was only one bed remaining this would invariably be given to a cardiac patient. It was also reported that, historically, cardiac patients would sometimes stay on the ward for longer than therapeutically necessary, meaning beds were not free for thoracic patients to use. This was said to have improved since the thoracic review in 2013, when the ward expanded and facilities improved. It was also said that if theatre cancellations were needed it was more likely that thoracic patients would be cancelled than cardiac patients.

Facilities

6.2.36 The review team was informed that there were not enough facilities to meet patient demand. There was said to have been no substantive increase in operating sessions, funding or services and that as a result the thoracic service was being ‘flooded’. It was said that patient waiting times to be seen in a clinic were now approximately one month and operative cases were often cancelled. In an effort to maximise operating time, staff were said to have resorted to using the emergency CEPOD theatre in the main suite. Some staff were reluctant to utilise this facility as they were not familiar with the theatre.

6.2.37 The lack of funding for facilities was also said to mean that it was difficult to replace important equipment. In addition, staff were said to feel they missed out on the
training and development opportunities that would be beneficial to patients, and them professionally. One example highlighted was the opportunity to expand their practice to undertake pectus repairs; however this was not approved by WHSSC.

6.2.38 Recently, there was said to have been some breakthrough in terms of the facilities being authorised by WHSSC. Specifically the review team was informed that after a number of years of requests, the use of endobronchial ultrasound (EBUS) facilities and thoracoscopy had been approved for South Wales. The waiting time for patients to access this service was one week, which was considered to be reasonable. It was reportedly believed that this would help improve the hospital's resection rate. There was, however, no data available at the time of the review to check the effectiveness of this aspect of the service.

Pre-admission facilities

6.2.39 The thoracic department in Swansea had been given funding for ‘pre-habilitation’ by WHSSC, although historically this funding was said to have been ad-hoc. The review team heard that the intention of the thoracic surgery service in Swansea was to develop a system similar to that in Cardiff, where initial contact through primary care was instigated to get patients physically fit for surgery. It was said that the intention was for these services to be available at sites across South Wales to ensure that patients could be worked up for surgery near their homes. The review team was informed that the thoracic surgery service in Swansea was looking to secure enough funding to recruit an individual member of staff who would be responsible for the delivery of ‘pre-habilitation’. Until such a point the Swansea service would be reliant upon cardio-pulmonary exercise testing (CPEX), to assess if patients were fit enough to undergo surgery.

Training

6.2.40 Swansea has a medical school centred in the city and many of the students had undertaken placements at Morriston Hospital. Historically the hospital was said to have sometimes had a challenging relationship with trainees, with the removal of junior doctors by the Deanery reportedly leading to the collapse of the neurosurgery service in Swansea. In contrast the quality of training for trainees within the thoracic surgery service was considered to be highly positive. The consultant surgeons were deemed strong leads for teaching and it was felt that they were both approachable and willing to discuss queries. In terms of operating opportunities, it was suggested that trainees had a great deal of exposure to cases, and some of the trainees were in a position where they could operate independently. Typically these cases included VATS lobectomies, non-cancer cases and resections.

Development

6.2.41 The reviewers were informed that Morriston Hospital had intended to reconfigure its thoracic surgery service and were in the process of re-organising at the time of the review to establish a final structure. The Health Board’s management had commissioned an independent report to review the resection rates within the service so that they could address this issue. Furthermore funding had also been
secured to expand the service so that an extra day of operating could be undertaken by a third consultant.

Non-cancer patients

6.2.42 The review team heard that there was a significant disparity between the way patients with cancer and those with other thoracic conditions, such as emphysemas and secondary pneumothoraces, were being managed. According to a number of staff, the WHSSC had developed waiting time initiatives in respect of cancer patients with the intention to improve care for them. This, in combination with limited capacity to admit patients, meant that cancer patients were being prioritised ahead of patients with non-cancer related condition.

6.2.43 Some interviewees maintained that access to surgery for non-cancer patients was difficult with surgical capacity being a problem. It was felt that this affected decision making in respect of these cases and it took longer to refer the cases to the service. Many of the non-cancer patients allegedly had to wait many months before they were referred into the service for routine treatment such as a lung biopsy. It was said that, once surgery was scheduled, patients often had their operations cancelled because beds were not available or cancer patients had been moved up the lists. It was commented that by the time some of these patients were treated the delay had been such that their conditions had worsened and they were typically very unwell at admission.

6.2.44 There were some concerns with non-cancer cases may have been going ‘missing’ and ‘dropping off lists’. Interviewees maintained that they did not know what happened to these patients and the review team was not able to fully establish the reasoning for this. Some interviewees were concerned that patients may have been removed from waiting lists and subsequently not re-added, meaning that they may not have received the treatment they required. Some interviewees suggested that these patients had been managed by physicians at local hospital sites with medical and conservative treatments, which it was said may result in a significant period of discomfort and a potentially prolonged hospital stay.

6.2.45 There did not appear to be any formal initiatives in place within the department to address the backlog of non-cancer patients. Interviewees reported that one consultant typically undertook a significant amount of the non-cancer work and would attempt to obtain extra theatre time where possible to treat non-cancer patients.

Accessibility

6.2.46 Accessibility for patients was considered one of the major issues affecting patients in South Wales. Morriston Hospital in Swansea provided services to patients who were as far away as Aberystwyth and Machynlleth, which potentially equated to over two hours travel each way to access care. A few interviewees reported that patients had to make multiple trips for treatment because there was no access to pre-admission care at their local district general hospital or alternatively they would utilise other Health Boards’ facilities in North Wales.
6.2.47 There was some concern raised about the access to timely care for emergency patients as ambulance services were reportedly slow on occasions. The review team was advised that there was an on-site helicopter, which could be used if necessary.

6.2.48 There was some degree of consensus that patients were willing to travel to obtain medical services, particularly if the quality of care provided was high and timely. Interviewees comment that patients travelled to Cardiff University Hospital for PET scans. This was a view that was supported by the Board of Community Councils who represents patient interests across Wales. Other interviewees stated that they felt that more services needed to be developed in order to help facilitate patients and their families, for example patient hotels or clinics for pre-admission and follow up care.

6.3 Cardiff Thoracic Surgery Service

Patient capacity

6.3.1 Interviewees in Cardiff reported that a lack of beds had a negative impact on the flow of patients through the department, with the process being less fluid than the previous system. Interviewees believed that thoracic patients would benefit from a designated ward and better access to high dependency beds and designated nursing staff to look after them.

6.3.2 It was reported that the specialist thoracic beds the unit had were utilised by patients who did not require thoracic treatment. It was stated that patients with rib fractures were being put into thoracic beds. The amount of ‘outlying’ patients in these beds was said to vary, however, it was reported that there had been up to a dozen patients at one time. Access to patient beds was said to be further obstructed by the length of stay of patients who were admitted the day prior to surgery. It was reported that there had previously been some attempts to admit patients on the day of surgery but this was not sustained by the service. Interviewees did not report that they were aware of there being an intention to increase the amount of beds available to thoracic patient despite the on-going throughput issues.

Theatre Access

6.3.3 The two consultant thoracic surgeons operated twice a week each, with thoracic surgery lasting from 08:00 to 18:00. Typically the surgeons treated a high proportion of cancer patients and undertook VATS lobectomies, metastectomies and pleural biopsies amongst other surgical procedures, as well as a monthly pectus deformity list. It was commented that a minimally invasive approach to thoracic surgery was adopted where possible. The use of paravertebral analgesia was said to have reduced the need for HDU beds as well as postoperative stays.

6.3.4 The main issue with operating was said to be gaining enough access to theatres to accommodate the number of patients accessing the service. The review team were advised that an estimated 600 patients had to be treated by the consultants each year. Interviewees felt that there was limited capacity in the main theatre and all
theatre templates were full, making it difficult to put on additional theatre lists. It was said that it was the unit’s priority was to gain another theatre list so that waiting times could be improved.

6.3.5 There was perceived to be some movement towards this objective as it was reported that management was looking to build two more theatres, however there was no definitive timeline provided for this. Other mechanisms for this had been considered and it was suggested that, where possible, Saturday theatre time could be allocated to address waiting lists. In addition the possibility of extending the operating day or overlapping patients has been discussed although no definitive action had been taken.

6.3.6 Consideration was said to have been given to the recruitment of a third consultant thoracic surgeon, and this had been approved by WHSSC. However there was concern regarding the access to operating that this surgeon may have, as there was not currently the theatre capacity for a third surgeon to perform theatre lists.

6.3.7 The review team heard that patients were seen by ‘case managers’ before being admitted for surgery. These case managers provided the pre-assessment for surgery and assisted to develop the lists and theatre schedules. It was considered that the flow of patients into surgery worked well and was well established. As a result it was submitted that the potential for cancellations was lower. However, it was confirmed that consultants would cancel or re-schedule patients where there was an urgent need for another patient to be treated instead. Staff estimated that the frequency of this varied from once a fortnight to as many as six in one week.

6.3.8 It was reported that the unit had previously tried admitting patient on the day of surgery. This was not adopted permanently as there could be last minute issues prior to surgery and delays to the anaesthetic assessment of patients, which consequently delayed surgery start times. The admission of patients the day before surgery was said to be favoured because this ensured that operations started on time with prompt list starts said to be helpful in avoiding ‘queues’.

6.3.9 One of the biggest challenges facing the service, according to interviewees, was the issue of early theatre finishes. The review team heard that there was a pressure to have all surgical procedures finished by 18:00 as there were no members of theatre staff scheduled to be available after this time. In reality, it was said that surgery often finished around 16:00 because no new cases were able to be started after this time as they would be unlikely to finish before the 18:00 deadline. It was reported that as a result the surgeons were only operating on two or three patients per session and lists could not always be completed leading to the cancellation of patient operations. Some interviewees felt that this issue undermined the success of the unit and it was suggested that more staff were required so that surgery could be more flexible, particularly as other specialties like cardiac surgery were able to continue later in to the day.

6.3.10 It was reported that, following surgery, the anaesthetist went with the patient to
recovery and the next operation did not begin until the anaesthetist arrived back to
the operating theatre. Interviewees stated that there could intermissions of around
45 minutes while the handover of care from the anaesthetist to the recovery staff
took place. It was said by some that, whilst the number of theatres had grown, there
were still few recovery staff, which undermined the effectiveness of this additional
theatre space. Some interviewees did counter this by saying that that there was a
system which recorded timings in theatre with a notification sent if a patient was not
admitted to theatre within ten minutes.

6.3.11 There were said to have been good cross-cover between surgeons, with any
cancellations being re-listed where possible on the next operating list regardless of
the surgeon scheduled to perform that surgery. For complex cases the surgeons
reportedly occasionally operated together. All changes to the operating lists were
said to be discussed with the patients to ensure that they remained fully informed.
Furthermore, it was reported that the consultant surgeons when conducting a ward
round would see all patients, including their colleagues’ and also cover each other’s
patients during periods of leave.

Surgical techniques

6.3.12 It was reported that the consultant thoracic surgeons in Cardiff preferred to use
paravertebral blocks for post-operative pain relief. This method was considered to
be preferable because it enabled patients to be transferred back to the main ward
shortly after surgery, therefore freeing up HDU beds for future patients.

6.3.13 The review team heard that one of the consultant thoracic surgeons in Cardiff had
been instrumental in implementing new procedures and more radical treatment
within the department. This surgeon was said to have been involved in the
introduction of progressive procedures such as VATS and other minimally invasive
procedures. This reportedly meant that the department could maximise the amount
of patients being treated as these sorts of procedures reduced recovery time of
patients.

MDT processes

6.3.14 Cardiff University Hospitals contributed to five thoracic MDT meetings per week,
which were at:

- Royal Glamorgan
- University Hospital Llandough
- Royal Gwent Hospital
- Nevill Hall Hospital
- Prince Charles Hospital

6.3.15 The MDT meetings were split between the two consultant thoracic surgeons, with
one consultant responsible for the Prince Charles, Royal Glamorgan and Llandough
Hospitals’ MDT meetings and the other for the Nevill Hall and Royal Gwent Hospitals.

6.3.16 Interviewees agreed that the MDTs could be consolidated from five into three for Cwm Taf, Aneurin Bevan and Cardiff. In particular it was considered that the Cwm Taf MDT did not need to have as many meetings. It was hoped that merging MDTs could free time for consultants to devote to addressing any patient backlogs and that this would also reduce the amount of cover required for MDT meetings when consultants were away. There was, however, also some apprehension expressed as some of the MDT meetings were considered to already be busy and continuing to grow in size, meaning that it was challenging to discuss all the cases within the allotted time.

6.3.17 There was a relatively low attendance at these MDT meetings, with rates being as low as 55%. This was said to be due to a number of reasons; firstly competing work demands sometimes meant that the surgeon was not able to attend the MDT via video link. Furthermore interviewees explained that there was not the capacity for staff to cross cover MDT meetings therefore when the consultant surgeon was away the MDT would proceed without the presence of any consultant thoracic surgeon. This issue was considered by some as a contributing factor to Cardiff’s low resection rates, as there was no consultant to provide expert advice on whether a resection should be offered.

On-call

6.3.18 Consultant thoracic surgical on call cover was provided by the two consultant thoracic surgeons each working a 1 in 6 on-call with the rest of on call commitment provided by consultant cardiac surgeons.

6.3.19 There was concern that there was not adequate cover available for emergency out of hours patients. There was only one consultant cardiac surgeon who was considered to be confident enough to undertake full thoracic surgery on-call. Interviewees emphasised that many of the cardiac surgeons had had little exposure to thoracic work and felt uncomfortable providing care for fear that they did not have the requisite skills. As a result there had allegedly been occasions when the cardiac surgeons had required assistance from the thoracic surgeons as they were not able to deal with the matter themselves. It was, however, noted that often when the on-call surgeon did see thoracic patients they were not required to perform thoracic specific procedures.

6.3.20 One interviewee described the emergency on-call arrangement as a ‘nightmare’. This individual stated that the cardiac surgeons would sometimes refuse to undertake a case, which meant that they would need to call one of the consultant thoracic surgeons instead. An example was cited, in which a patient presented with an obstructed airway and there were no thoracic surgeons available at either of the South Wales sites meaning that the patient had to be transferred across the border.
to Bristol. Interviewees went on to confirm that referral to Bristol, whilst not frequent, was not wholly uncommon either and that staff were aware of who they could contact should they require assistance.

6.3.21 Like interviewees in Swansea, respondents in Cardiff also provided conflicting views regarding the possibility of an on-call system shared between both sites with some feeling that this was important to ensure patient safety and others who felt that this was not viable.

Governance

6.3.22 There was reported to have been a reasonable standard of clinical governance within the department. There were 10 audits meetings held each year, which were said to be widely attended. In addition to this there were weekly consultant and directorate management meetings. There was, however, an acknowledgement that M&M meetings were not held regularly due to there being no dedicated time for this.

Patient Satisfaction

6.3.23 Interviewees reported that patient satisfaction rates were high with patients typically providing good feedback following in-patient care. There had been some attempt at trying to gather formal feedback from patients and a group of staff had recently conducted a patient satisfaction audit following treatment at the pre-admission clinic. The team wrote to 50 patients and received 28 replies. It was reported that every respondent supplied positive feedback to the hospital with no negative comments being received.

Staffing

6.3.24 It was reported that Cardiff experienced similar problems to Swansea with regard to a lack of consultant thoracic surgeons to cope with patient demand. Initially it was suggested that an additional consultant thoracic surgeon could be hired and then contracted out to Morriston Hospital, therefore providing extra resources for both sites. However, there were concerns as to whether this was viable because it would mean a lot of travel for the consultant surgeon employed.

6.3.25 WHSSC had agreed funding for a third consultant to be employed in Cardiff. At the time of the review attempts to hire a third consultant on a locum basis had been unsuccessful. It was hoped that a further recruitment drive would mean that a surgeon was in post on a locum basis by December 2016. Staff did express some concerns that it may be difficult to establish operating sessions for a third surgeon given that there was only currently access to one theatre with consultants operating on four days already.

6.3.26 The review team heard that there was a shortage of theatre staff, with there being
42 theatre staffing vacancies across the whole of the organisation at the time of the review visit. Although it was noted that an anaesthetist had recently been employed within the department which had helped alleviate some of the burden.

**Team working**

6.3.27 There appeared to be strong working relationships between the consultants in Cardiff. Interviewees agreed that the consultants worked together in the interests of patient care, for example jointly preparing cases and putting urgent matters to the board. The review team were further informed that there was a highly supportive atmosphere. Even on occasions where there were disagreements about patient care it was said that the consultants would discuss this in a non-aggressive manner and resolve any differences swiftly.

**Relationship with cardiac surgery**

6.3.28 There was said to be good collegiate working with cardiac surgery with the two teams working closely together. The review team heard that both teams’ interests were treated fairly, that there were rarely issues with beds and, in instances that this did occur, thoracic patients often took precedence. Despite this positive interaction between teams, some interviewees felt that cardiac surgical service generally received preferential treatment. An example provided was dedicated specialist registrars allocated to the cardiac surgery service, but no such resources provided to the thoracic service.

**Facilities**

6.3.29 Like Swansea, Cardiff was also said to have experienced a lack of facilities which had made it hard to keep up with demand. Staff reported that they were unable to reconcile throughput issues with their current resources and that they felt further investment from WHSSC was required to ensure that patients could receive timely care.

6.3.30 It was commented that generally the facilities in Cardiff were better than those at Morriston Hospital. For example they housed the only PET scanning facility, which all patients across South Wales had to travel to use. Furthermore funding had been provided to build an improved diagnostic site by the other thoracic facilities, so that eventually a one-stop service could be established. Additional funding for EBUS facilities had also been granted.

**Pre-admission facilities**

6.3.31 There was said to have been a drive to improve referral pathways into hospital by utilising ‘pre-habilitation’ schemes. It was reported that all routine check-ups and assessments were done via pre-assessment. Interviewees reported that prior to admittance to hospital the patients were fully informed of their role and
responsibilities as well as what to expect from the service. Patients were required to undertake a six minute walk test to identify risks and to ensure they were fit and well enough to undergo treatment. It was further reported that efforts had been made to minimise the risk of patients being refused for surgery by engaging with GPs and dieticians to ensure that they were making positive steps to improve the patients’ fitness before referral for surgery. Furthermore patients were taught how to use a respiratory muscle trainer which assisted in ensuring the patient’s fitness for their operation and to improve post-operative recovery. It was said that, in the future, Cardiff proposed to deliver a programme of ‘pre-habilitation’ intervention over a six week period prior to surgery. It was proposed that each programme would be tailored to each individual patient and delivered locally with a weekly clinic within the Health Board in which the patient was situated.

Training

6.3.32 There is a large medical school situated in Cardiff with whom Cardiff University Hospital had a strong affiliation. It was reported that trainees were very happy with the quality of training received and had good opportunities to develop their skill base. The review team were told that one consultant thoracic surgeon was particularly instrumental in ensuring that there were good training facilities and learning opportunities for junior doctors.

Development

6.3.33 The review team learnt that there was a clear intention to extend the thoracic surgery service with requests put in to increase funding. Whilst attempts to approve a fourth consultant surgeon had been rejected, there had been investment in other areas of the service. It was reported that money had been invested in re-developing the out-patient area, moving it to an area that was closer to the thoracic ward and making it larger so that there was more privacy for patients.

Non-cancer patients

6.3.34 The thoracic surgery service at Cardiff University Hospital was also said to have experienced difficulties in ensuring that both patients with cancer and those with non-cancerous conditions received appropriate access to treatment. Interviewees did, however, highlight that mechanisms had been put in place to ensure that non-cancer patients were not missed. There were specific lists for pectus patients as well as weekly meetings to discuss referral to treatment waiting lists to ensure that non-cancer cases were discussed. Interviewees did, though, suggest that the service lacked the facilities to adequately treat non-cancer patients and that access to an extra theatre would assist with this.

Accessibility
6.3.35 It was largely agreed amongst respondents that accessibility to services could be challenging, specifically for those patients living outside the city in the more rural areas and in the Valleys. Like Swansea, there were clinics available within local Health Boards to provide pre-admission and follow up care to patients.

6.3.36 Some interviewees felt that it was a matter of concern that emergency care was not easy to access for some patients. Patients near the English border were on occasion referred to Bristol although it was noted that that was avoided as much as possible as funding needed to be approved via IFAR and it posed problems in terms of post-operative care. There was access to helicopter facilities although it was noted that it could be difficult to use these facilities at night as there were a number of tall buildings around the landing pad.

6.4 Mid and North Wales Thoracic Surgery Services

6.4.1 Patients in Mid or North Wales who required thoracic surgery were said to be referred to England. Mid Wales is mostly rural with a relatively low density population, spread across a large geographical area. There was a complex network for thoracic surgery with some patients being referred into hospitals in the Midlands such as Birmingham and Stoke, others into the Hereford and Worcester region and a minority of patients into the Swansea service. There was no district hospital and therefore patients also had to travel to access out-patient services. In North Wales all patients were referred to Liverpool Heart and Chest Hospital for surgery, with three district hospitals within North Wales providing a significant proportion of pre-admission and follow up services.

6.4.2 The review team heard that accessibility for patients had been challenging, however both sites had managed to work around such issues. It was said that the current arrangements for Mid Wales highlighted the need to utilise GPs to build good connections between primary care and secondary care providers. There was no indication that there had been any issues in establishing good working relationships between primary and secondary care.

6.4.3 In North Wales mechanisms had been put in place to ensure patient accessibility to services. Some services were provided by local hospitals in Glan Clwyd, Wrexham and Bangor, for example patients would travel to Wrexham for PET scans, as well as out-patient clinics. Furthermore initiatives were put in place to make hospital access prior to surgery easier. Patients were admitted the day before surgery with ambulance services being utilised to transport patients to hospital, although this service was unavailable on a Sunday. There were also patient hotels near Liverpool Heart and Chest Hospital for patients and their families to use as necessary. In terms of emergency care, there was a trauma centre in Aintree where patients with polytrauma could be referred for treatment. Minor cases were referred to Glan Clwyd or Wrexham, which was said to have been no more than 45 minutes travelling time for patients in North Wales.
6.4.4 In the view of interviewees from North Wales, there was a good quality of care provided by Liverpool Heart and Chest Hospital. It was reported that there was good engagement with the hospitals in Wales, with physicians being able to call their colleagues at Liverpool for advice as necessary. The average referral time to treatment was reported to be two to three weeks. It was asserted that the 31 and 62 targets for cancer treatment were rarely breached and patients were managed efficiently. When questioned about non-cancer patients, it was reported that their quality of care was also high. Interviewees stated that there was no particular capacity issue with these patients. It was, however, noted that there may occasionally be delays in seeing a consultant thoracic surgeon, which sometimes meant that it was approximately four weeks before treatment could be provided.

6.4.5 It was recognised that resection rates for North Wales were not as high as they ought to be, according to national standards, with rates being under 10% in the last NLCA data set. It was suggested that this may, in part, be due to a general lack of attendance at the MDT. There were three MDT meetings, one at each of the three hospital sites in North Wales. Each MDT lasted approximately an hour and a half and involved the discussion of around 10 – 15 patients, including both existing and new cases. It was commented that the attendance at MDT meetings was approximately 50% with rates reaching as low as 35% when the Consultant Surgeon was on annual leave. There did not appear to be any cross cover by other surgeons. There was said to have been some conversations about the possibility of merging the MDTs, which some interviewees felt would be beneficial as there would always be a consultant presence at the MDT. Other interviewees suggested, however, that logistically it would not be possible to construct a merged MDT.

6.5 Potential future models for thoracic surgery in South Wales

Cross site working

6.5.1 It was acknowledged that typically there was a level of rivalry between Morriston and Cardiff University Hospitals; however this trend was said not to be prevalent in thoracic surgery. Whilst interviewees at both sites admitted that there was little cross working between the two departments, there was said to be a good level of professional communication between the two sites. For example, interviewees agreed that they could contact colleagues at the other site to seek a second opinion or discuss patients. One interviewee did intimate that there may have been a propensity for physicians at Cardiff University to ‘poach’ Morriston patients based in Bridgend and, whilst this was denied, it was acknowledged that occasionally patients from Morriston were referred to Cardiff University Hospital.

Future of thoracic surgery

6.5.2 Interviewees acknowledged that the separation of cardiothoracic surgery into cardiac and thoracic surgery was something that had affected services and would be a significant issue going forward. Some respondents reported that there were a
limited number of cardiac surgeons that were able to offer thoracic on-call emergency support. This was said to be because some cardiac surgeons had not had the opportunity to maintain their thoracic skills and therefore it would not be appropriate for them to treat thoracic patients.

6.5.3 A number of interviewees suggested that both of the cardiothoracic departments should be deconstructed, and replaced with individual cardiac and thoracic departments. The review team heard that if the departments were to split into separate entities then the thoracic surgery services would require more resources to ensure that they could function effectively and in accordance with national guidelines. The requirement of additional thoracic surgeons was highlighted by a number of interviewees, who maintained that this would be necessary to provide safe emergency on-call and effective patient through-put.

**Number of sites**

6.5.4 The general consensus of interviewees was that a model of a single thoracic service on one site would be preferable to that of two separate services or a single serviced based across two sites. It was submitted that a two site model would not be sustainable and was unlikely to work effectively. This suggestion was made for a number of reasons. A number of interviewees felt that the changing landscape of cardiothoracic surgery, specifically the lack of cross-working, would have implications on maintaining a two site model. In the view of some, it would difficult to obtain the staff required or develop an adequate on-call rota to sustain a two site model. It said that it would not be possible therefore to develop a 24/7 unit delivering services over two sites.

6.5.5 Some interviewees pointed out that the current two site model was not working efficiently in its current state, describing services as ‘dysfunctional’ and ‘non-effective’. As such, it was thought that investing in developing a one site model may be a way to revitalise the delivery of thoracic surgery. Interviewees reported that a one site model would address some of the problems of the current service, such as having sufficient staffing to develop on-call rotas and cross cover schedules.

6.5.6 There were some comments that a one site service would also be beneficial because it would allow for a state of the art centre of thoracic surgery to be developed. It was suggested that this would attract funding, staff and innovation which would have a beneficial impact on patient care.

6.5.7 When questioned regarding whether staff would accept the merger of the current thoracic services into one, it was largely agreed that staff would be open to this. This was validated by staff actively agreeing that they would be willing to work at a different site if necessary. It was implied that provided there was good infrastructure in place staff would be more supportive of a single site service rather than a multiple site service.
6.5.8 The issue of accessibility was discussed extensively by interviewees, some of whom believed merging into one service would be disastrous for patient care because some patients would have significant difficulties accessing care. These interviewees contended that it would stressful for patients to have to travel such long distances. It was further asserted that there would potentially be a backlash from the populations who felt they were losing out on local resources. However, this was countered by the view expressed by others that patients were willing to travel for high quality care. It was asserted by interviewees that mechanisms could be put in place to reduce the stress on patients travelling long distances, for example developing patient hotels. Interviewees gave further examples of similar services that had worked successfully, citing NHS Highlands as looking after patients who have to travel from remote areas.

6.5.9 There was some trepidation around whether patients would be willing to present to a large single unit, with some feeling that patients may feel too intimidated to attend the service. Instead it was suggested that money should be invested in the current structures to improve the facilities for patients, for instance supplying more beds and creating a dedicated HDU unit for thoracic patients. Similarly other interviewees suggested two sites with a smaller and larger unit would best accommodate patients.

**Location**

6.5.10 It was considered by some interviewees that Swansea may be a preferable site to base a single thoracic surgery service because it would provide a more central location for patients in comparison to Cardiff. Whilst it was acknowledged that patients in West Wales would still have a significant distance to travel, this would be less than having to travel to Cardiff. Furthermore, whilst patients from East Wales would have to travel further, it was not considered that this would not be an unreasonably long distance to travel in comparison to West Wales residents. It was considered that the distance of travel may impact patients’ willingness to present for treatment and the treatment options they make. Ultimately it was said that most patients were willing to travel for care, provided that this care is high quality.

6.5.11 In terms of space, it was commented that Morriston Hospital in Swansea had undergone a period of restructuring and was continuing to develop and grow as a hospital. It was noted that there was space around the site to expand, meaning that there was potentially the opportunity to build new facilities or a dedicated thoracic ward. Management staff at Morriston Hospital were said to have put forward business plans to establish a dedicated level 1 area in the existing bed pool, the intention of this was to help facilitate discharge of patients.

6.5.12 A number of other interviewees advocated Cardiff University Hospital as the preferable site for a single thoracic surgery service. One of the main factors used to support this was the positive working relations and leadership amongst the staff in the department. Respondents highlighted that there was one Consultant Surgeon who was particularly proactive and instrumental in developing and advancing the
department. It was felt that this individual could potentially lead the development of a single site service. Interviewees felt that this was the right environment to establish the thoracic surgery service as staff would work together to create a new system that was in the best interests of patients.

6.5.13 A number of interviewees highlighted that Cardiff was the fastest growing city in the United Kingdom and that this influx of people would mean a larger pool of people to recruit from and therefore would arguably allow for recruitment of better quality staff. Moreover, it was felt that there was scope for investment from science and research projects, which would benefit the public in terms of providing more funding. One interviewee noted that, if the service were not located in Cardiff, patients would miss out on benefits from innovation and research.

6.5.14 Cardiff University Hospitals had emphasised their intention of establishing themselves as a major trauma centre. At the time of the review this had not been put forward to or approved by WHSSC. The review team had heard that both Cardiff University Hospital and Morriston Hospital had been mapped against the specification for trauma centres in England. It was asserted that Morriston Hospital did not currently have the resources to establish this but that Cardiff University Hospital did. Respondents highlighted that a trauma site would almost certainly include neurosurgery which only took place at Cardiff, therefore it was felt that the hospital would be the natural location for a trauma centre. It was further argued that a good trauma centre should include thoracic surgery services meaning that thoracic surgery, in their view, should be based in Cardiff.

6.5.15 In terms of accommodating a larger thoracic service in Cardiff interviewees advised that there were already plans to expand the hospital in the next five years and the intention of moving some other departments to Swansea, for example the dental hospital or ophthalmology. It was said that this would allow space for the department to expand so that there was enough ward and theatre capacity for thoracic patients.

6.5.16 Some interviewees had raised the possibility of Llandough Hospital forming the central site for thoracic surgery services. At the time of the review respiratory medicine was based at Llandough Hospital and many patients attended the hospital for specialised services prior to admission. The reviewers learnt that there were theatres that could be utilised at Llandough Hospital, although it was said that it the intention was to utilise these for day case surgery in the future. Some interviewees considered that it would not be viable to develop thoracic surgery at the site as there were no longer any thoracic beds available and any plan to build a service at this site would be highly expensive.
7. Conclusions

The following conclusions are reached on the basis of the documentation reviewed as set out in section 6 above and the interviews held with staff as described in section 5 above.

7.1 Future model of thoracic surgery services

7.1.1 It was clear to the reviewers that the current two site model of thoracic surgery was not working effectively and was not sustainable. It was of significant concern that patient care was undermined due to the lack of on-call rota, delays in treatment and under-funding.

7.1.2 In the opinion of the reviewers South Wales should be serviced by a one-site surgery service model for thoracic surgery, with potential for regional sites within each health board for pre-admission and out-patient clinics.

7.1.3 When considering where a single-site should be it is important to consider the important interdependencies that exist between services. It is the view of the team that it makes sense to locate thoracic surgery on the same site as cardiac, trauma and respiratory services. It would be appropriate for any site performing thoracic surgery to have appropriate access to equipment such as a PET scanner and EBUS.

7.1.4 It is the view of the review team that although there are stand-alone Thoracic units in the UK there are real advantages to having both cardiac and thoracic surgery on one site. This would favour location of a future Thoracic surgical service at either of the existing cardiothoracic units.

7.1.5 The thoracic surgery service could be delivered at either Morriston Hospital in Swansea or Cardiff University Hospital effectively, given the right level of investment. At the time of the review visit Cardiff University Hospitals was considered the site where less work would be required to establish a single site service, with Morriston Hospital requiring more investment from WHSSC. However, the review team was clear that a decision on where to establish a single thoracic surgery should not be based solely on this factor and should consider all relevant issues including geographic location.

7.1.6 In line with units of a similar size it was considered that five consultant thoracic surgeons were required to service a population of 2.4 million people safely. This would provide adequate emergency on-call cover as well as other services to ensure adequate patient throughput.
7.2 Delivery of high quality and timely patient care

7.2.1 The review team found that neither site had a dedicated unit to provide care for thoracic surgery patients and had to share space with the cardiac team. Whilst unavoidable within the current two site model, this would not be appropriate within a one site model. Going forward, a dedicated thoracic surgery unit should be established if a one site model is to be adopted.

7.2.2 There were not enough beds available to accommodate patients, with few beds being ring-fenced for thoracic patients. The review team identified that HDU beds were particularly in low supply. The beds that were available to thoracic patients were often not utilised effectively and not allocated to patients in higher need of treatment. This hindered the fluid movement of patients through the service and prevented some very unwell patients from receiving prompt treatment.

7.2.3 The review team found that at both sites the length of stay in hospital for patients could be shorter. It was concluded that this at least in part due to the distance patients had to travel for care, meaning same day admission was not practical at the time of the review. This is a key issue, which would need to be addressed if a single site model is to be adopted as this will require some patients to travel further.

7.2.4 The current theatre capacity for thoracic surgery at each site was inadequate. It was clear that the surgeons were not afforded enough operating time in which to treat all of the patients waiting for surgery. This meant that patient operations were, on numerous occasions, cancelled. Patients were kept as in-patients until they could be operated upon, which meant beds were blocked, delaying patient through-put and contributing towards waiting list breaches.

7.2.5 Both departments would have benefitted from additional operating days to address patient backlogs. In the short term, Morriston Hospital in particular may gain from looking at ways to ensure that both consultant thoracic surgeons have equitable access to theatre time and post-operative beds.

7.2.6 The review team found that the two services were lacking resources, in terms of equipment and staffing, during operating days. It was of specific concern that at Cardiff University Hospital operating lists were consistently ending up to two hours early for fear of a list then overrunning.

7.2.7 The introduction of funding for EBUS and ‘pre-habilitation’ services was positive, however, the review team found that neither site had the funding required to adequately resource these initiatives fully. This lack of funding also contributed to both services being unable to keep up with patient demand.

7.2.8 The review team concluded that there were too many separate MDT meetings per week and considered that it would be appropriate to merge meetings. This would place fewer burdens on consultant surgeons attending multiple MDT meetings, and
may help address the low attendance rates at MDT meetings.

7.2.9 Whilst video-conferencing was not considered the ideal means of conducting MDT meetings, it was accepted that this was the only viable method of running the MDT given geographical constraints. It was noted that attendees should be vigilant in ensuring that the correct patient data is presented at the MDT.

7.2.10 The review team found that the underlying causes for the low resection rates in South Wales was not altogether clear. The variation in resection rates both geographically and temporally was high. They acknowledged that variation in resection rates between MDTs reflected more on the MDT itself than the individual surgeon attending it. There are multiple factors that could relate to variation in resection rates, including how the MDT is run, the aggressiveness of investigation and its timeliness, the skills of the thoracic surgeon, the capacity in the surgical centre and patient centred factors such as fitness and preference.

7.2.11 It was considered that both sites needed to conduct further investigations into their resection rates and the causes for this. This would then allow both sites to work out a strategy for improving resection rates.

7.2.12 The review team was concerned about the disparity of treatment between cancer and non-cancer patients, with patients with non-cancerous conditions often facing treatment delays and cancellations. It was concluded that the failure to treat non-cancer patients within a reasonable timescale was a patient safety issue, particularly given that many non-cancer patients’ conditions had significantly deteriorated by the time of treatment. It was also worrying that a number of non-cancer patients appeared to have ‘dropped off’ patient waiting lists, and both hospitals will need to follow up such patients to ensure they have been provided adequate care.

7.2.13 The reviewers observed that the surgical techniques employed at each site were appropriate. They were encouraged to see the use of a number of innovative techniques, in particular the use of minimally invasive procedures, which had helped reduce patient length of stay and improve patient experience through the surgical pathway.

7.3 Staffing model

7.3.1 The review team found that the current on-call arrangements for thoracic patients were unacceptable and posed a direct risk to patient safety. Specifically there appeared to be a lack of on-call cover over weekends as well as cover being provided by some cardiac surgeons who did not have the requisite skills to deliver treatment if this were to be required. It is crucial that an on-call rota incorporating all surgeons with thoracic skills is developed as a matter of urgency to ensure that patients have access to emergency care if required.

7.3.2 The review team considered plans to recruit additional consultant thoracic surgeons
at both Swansea and Cardiff sites to be less preferable than full reconfiguration of the thoracic surgery services for South Wales. As such it was strongly recommended that WHHSC did not proceed with recruitment until a strategy has been developed for the continuation of thoracic surgery. The review team did acknowledge that both departments were understaffed, and did not have the number of surgeons or nurses to deliver optimum patient care. It was considered that for a single site service to be established there would be a requirement for five consultant thoracic surgeons as well as increased support staff.

7.3.3

7.3.4

7.3.5

7.3.6 A single service model would require a Clinical Lead who is an established and well respected consultant thoracic surgeon to gain the respect of their peers. This individual should be able to bring innovation to the department and support staff within the unit.

7.3.7 The review team found that both departments were supported by high quality support staff who worked well to deliver patient care. The reviewers were particularly impressed by the case managers employed at Cardiff University Hospital who worked hard to improve the patient pathways and make pre-admission for patients more accessible.

**7.4 Accessibility and equitability**

7.4.1 Many patients had experienced difficulty accessing the thoracic surgical services. This was due to the fact that the current thoracic services cover a large geographical area. Morriston Hospital in particular had a lot of patients attending the service who were from rural regions that were hard to reach.

7.4.2 It was recognised that the creation of a one site thoracic surgery service would mean that some patients would have to travel even further to access treatment. However, the review team understood that patients were willing to travel for treatment provided that the quality of care was high; therefore the benefits of a one site service outweighed that of the travel difficulties.

7.4.3 There are steps that can be taken, such as the creation of good, local follow up clinics in all regional hospitals, to minimise the amount of travelling for patients. Other means of support, such as transport schemes and accommodation will also be crucial in ensuring that a single site service model works for patients.
7.5 Patient experience

7.5.1 The review team found that many of the patients presenting for treatment had significant co-morbidity and were generally unfit for surgery. Reasonable efforts had been made to encourage patients to come forward for treatment at an early stage. Efforts had also begun in terms of the ‘pre-habilitation’ of patients to ensure they could receive the surgical treatment they required.

7.5.2 Patients were largely happy with the quality of treatment provided to them at both sites, and there did not appear to be any specific concerns regarding the quality of surgical treatment provided to patients. However, patient experience was significantly undermined by the delays in referring patients for treatment. Both departments had consistently breached 31 and 62 day targets for cancer waiting times. These waiting times were not satisfactory and it is important that steps are taken to address this issue as a matter of priority.

7.6 Effective co-operation of services

7.6.1 Whilst NHS guidance on trauma services does not stipulate that thoracic surgery must be included within a trauma service, the review team felt that the thoracic surgery service would be best placed at the same site as a major trauma centre.

7.6.2 Co-location with the oesophago-gastric cancer surgical team would be appropriate, since complications of such surgery often require the input of the thoracic surgical team.

7.6.3 The recent agreement to fund ‘pre-habilitation’ services was welcomed, helping to improve the health of patients prior to surgery and reduce the length of stay.

7.7 Sustainability

7.7.1 It is likely that the future will see further divergence between cardiac and thoracic surgery services, with surgeons being required to train in either thoracic or cardiac surgery, leading to the reduction in capacity to provide cross-over. It is not sustainable, in the long term, for the services in South Wales to rely on consultant cardiac surgeons to staff thoracic surgery on call rota. The review team was clear that, in the immediate future, on-call work should only be completed by consultant cardiac surgeons who are both competent and confident at undertaking thoracic work.

7.7.2 Trainees appear to have received good quality training with exposure to adequate

---

\(^2\) NHS Commissioning guidance states ‘Based on likely retirements over the next 5 years, the need to produce sufficient numbers of thoracic trainees to become available to fill the consultant posts for the service and the time needed for Units to make the appropriate adaptations to their staffing arrangements based on the requirements of the service specification already alluded to, it will not be necessary for Units to employ surgeons who have a mixed cardiothoracic practice beyond the year 2020 at the latest.’
operating time at both sites. As both Swansea and Cardiff have Universities with medical schools, the review team were assured that both locations had the propensity to attract good quality employees in the future.

7.7.3 The current level of funding for the two thoracic surgery services is not sustainable and it seems likely that the backlog of patients waiting to be treated would continue to increase without additional resources being provided or a significant reconfiguration of services. The review team was concerned that without intervention the future standard of patient outcomes and care would be at risk.

7.7.4 Staff had taken positive steps to introduce innovative surgical techniques within their practice, such as minimally invasive surgery. It was encouraging that one consultant surgeon had actively sought out opportunities to train staff on new surgical practices, particularly given that thoracic surgery in the UK is using more complex techniques such as robotically assisted surgery. These actions were considered necessary so that consultant surgeons would have the requisite skills to provide high quality care to patients.

7.8 Cost effectiveness

7.8.1 The review team was unable to comment on the most cost effective option for WHSSC with regards to a future model for thoracic services. Instead it was considered that WHSSC should utilise the services of a health economist to provide this advice.

7.8.2 It was however clear that the development of any thoracic surgery model would require significant investment from WHSSC to ensure that a good standard of service is provided to patients.

7.9 Mid and North Wales

7.9.1 It appeared that the provision of thoracic surgery to patients in Mid and North Wales generally worked well, given the access constraints to surgical services. It was clear that, particularly in North Wales, efforts had been made to facilitate easier accessibility for patients. There were no concerns regarding the quality of care provided to patients, which seemed consistent with the care provided to English patients. It was, however, clear that the resection rates achieved required improvement and it may be helpful to have an independent source to review whether the MDT is effective in its current state, or if it requires restructuring.
8. Recommendations

The following recommendations are for WHSSC to consider.

Recommendations to address immediate patient safety risks

1. The current structure of the emergency on-call rotas in both Swansea and Cardiff are not appropriate and should be reviewed immediately to ensure that the consultants involved are able to deliver emergency thoracic surgical care when required. In order to achieve this, the following should be considered:
   - A joint on-call rota incorporating surgeons with thoracic surgery competencies from both Swansea and Cardiff should be developed, providing emergency care to both sites 24 hours a day, seven days a week. The on-call rota should remain in place until such a time that a new model for thoracic surgery services has been agreed and implemented by WHHSC.

Recommendations to address potential patient safety risks

2. Morriston Hospital and Cardiff University Hospital should review the care provided to non-cancer patients, to address the concerns highlighted in this report about delays in providing treatment to these patients. Both sites should produce protocols regarding the care of patients with non-cancerous thoracic conditions and review the level of access to operative care these patients receive.

3. Both hospitals should conduct an audit of previous non-cancer patients to ensure that none have been lost from waiting lists for the treatment that they require.

4.

Recommendations for current service improvement

The following recommendations are made to help improve the quality of the care provided by the two current thoracic surgical services.

5. WHSSC should reconsider plans for the substantive recruitment of additional consultant thoracic surgeons at both sites until a future model of thoracic surgery services has been agreed. An additional, consultant surgeon should then be employed at the permanent site of thoracic surgery whilst the new model is being implemented.

6. Both services should review and seek to address the issues affecting cancer resection rates described in this report. As part of this it may be helpful to give consideration to how MDT meetings are operated.

7. Both services should undertake a review of their current level of theatre access. In
order to address any short-comings. As part of this the services may want to consider:

- Proceeding with plans to change the operating days of one of the Consultants so that there is a longer gap between operating days at Morriston Hospital
- Providing sufficient staffing resources to ensure that theatre days are not unduly cut short
- Allocating more operating time to consultants

8. WHSSC should continue to fund and implement preadmission initiatives such as ‘pre-habilitation’ and EBUS to help improve the rate of patient through-put to surgery.

9. Both sites should review their MDT arrangements to assess whether it is possible to merge some MDT meetings in an effort to streamline the process and to better consultant thoracic surgeon attendance.

Recommendations for future service development

10. It is the review team’s recommendation that WHSSC adopts a single site thoracic surgery service model for South Wales. The review team considered that this reconfiguration was in the best interests of patient care and was the most sustainable option for thoracic surgery going forward. It was considered that changes to cardiac and thoracic surgery would mean there would not be a staffing resource that could adequately sustain a two site model in the future. Furthermore, splitting finances between two sites meant that neither site had the resources to provide the resources necessary to provide high quality and timely care to all patients.

11. The review team was not able to make a recommendation on the location of the new thoracic surgery site and ultimately considered that it would be viable to locate the thoracic surgery service at either Morriston Hospital or Cardiff University Hospital, if given the requisite level of investment. At the time of the review, Cardiff University Hospital was considered the site that would require the least work to establish the service, with Morriston requiring further investment from WHSSC. In making this decision WHSSC should take into account the level of investment required by either site, the geographic location of the two hospitals, the other specialist services that are currently based at each site as well other future development plans in place.

Recommendations should a single site model be adopted

12. WHSSC should begin development of plans for the allocation and implementation of a single site model immediately, keeping the teams in Swansea and Cardiff as well as other relevant parties fully informed of any developments. It may be helpful for WHSSC to refer to NHS England ‘Thoracic Surgery Specification’, when published, for
guidance on how to develop the service.

13. WHSSC should seek independent advice from a health economist to help them undertake a cost analysis in respect of any service changes to thoracic surgery.

14. Five consultant thoracic surgeons should be employed to meet service demands. WHSSC should review each of the consultants job plans to ensure that each specification includes:
   - A one in five on-call duty which includes weekend cover
   - At least one specified operating day
   - Fair distribution of MDTs with adequate cross-over cover
   - Attendance at out-patient clinic

15. WHSSC should consider allocating or funding the construction of a separate unit for thoracic surgery, with designated access to the following resources:
   - Ward, HDU and ITU beds
   - A dedicated theatre for elective procedures and carefully planned access to emergency theatres
   - Appropriate levels of support staff to accommodate the ward and all theatre lists.

16. Steps will need to be taken to ensure that an appropriate level of junior medical and surgical registrar staffing is in place to support the service.

17. WHSSC should liaise closely with relevant stakeholder organisations, such as the Community Health Councils, primary care services, and the ambulance service to ensure that interests of the patients are maintained during the development of a new thoracic surgery service.

18. WHSCC should draw up guidance for staff and patients (both non-cancer and cancer) mapping out the patient journey from pre-admission to follow up. This should set out what patients should expect from the service as well as provide staff with a clear guide on how the pathway should operate.

19. WHSSC should consider what measures need to be put in place to maintain patient experience in outlying areas, that may need to travel further to access a centrally located service. WHSSC may want to consider the following:
   - Establishing outreach clinics for pre-admission and follow up care in each of the regional hospitals that would be referring in to a central service
   - The provision of accommodation for patients and their families within or nearby the hospital where the service would be located
   - Transport services for patients in remote locations

20. WHSSC should ensure that the new, single site based service has robust MDT
arrangements. As part of this the following should be taken into account:
- Reducing the amount of weekly MDTs
- Evenly spread MDT sessions amongst consultant thoracic surgeons
- Maximising the input of the consultant thoracic surgeons
- Providing consultant cover when staff are on leave
- Producing new protocols which prioritise patient through-put
- Having specialist nurse and surgical registrar attendance at MDT meetings
- Involvement of staff from the various regional hospitals in the MDT

**Responsibilities of WHSSC in relation to these recommendations**

This report has been prepared by The Royal College of Surgeons of England and the Society for Cardiothoracic Surgery under the IRM for submission to Welsh Health Specialised Services Committee. It is an advisory document and it is for WHSSC to consider any conclusions and recommendations reached and to determine subsequent action.

It is also the responsibility of WHSSC to review the content of this report and in the light of these contents take any action that is considers appropriate to protect patient safety and ensure that patients have received communication in line with the responsibilities set out in the Health and Social Care Act 2008 (Regulated activities) Regulations 2014, Regulation 20.3

**Further contact from the Royal College of Surgeons**

Where recommendations are made that relate to patient safety issues, the Royal College of Surgeons will follow up this report with WHSSC to ask them to confirm that these recommendations have been addressed. The College’s Lead Reviewer may be available to support this process.

---

11. Appendices to the report

11.1. Documents received as part of the Invited Review visit

The review team asks that the Trust keeps a copy of all the documentation listed below for their records and in order to be in a position to make it available on request to those reading a copy of this report. Once the report has been provided to the Trust the RCS will not keep a “master copy” of this information – it is for the Trust to do this should this be required for reference purposes.

- MDT meeting attendance rates
- MDT attendance rates (2015/2016)
- Resection rates
- Breach of cancer waiting times (June 2016)
- Activity data (2013 - 2016)
- Case mix data (2009 – 2013)
- Surgical management of chest wall sarcoma: An audit of practice (2014)
- Outcome of pulmonary metastasectomy in patients with previous colorectal malignancy
- G Chesterfield-Thomas & I Goldsmith, Impact of preoperative pulmonary rehabilitation on the thoracoscore of patients undergoing lung resection, Interactive Cardiovascular and thoracic surgery ( 17 July 2016)
- I Goldsmith & G Thomas, Swansea Pre-hab leads the way in addressing frailty in patients undergoing thoracic surgery
- I Goldsmith & G Thomas, Preoperative pulmonary rehabilitation helps to improve the frailty index and vulnerability of patients undergoing thoracic surgery
- Testimonials for Mr Goldsmith
- Schedule and feedback for Welsh Cardiothoracic Society inaugural meeting on 7 November 2015
- SWOT analysis for thoracic surgery at ABMUHB
- WHSSC’s committee paper on thoracic surgery (21 January 2016)
- Minutes from Abertawe Bro Morgannwg University Health Board (ABMUHB) directorate meeting on 19 October 2015
- Minutes from ABMUHB directorate board meeting on 29 February 2016
- Lung cancer table assessment I and II
- South Wales Cancer Network directory of cancer services
- NICE lung cancer in adults (26 March 2016)
- F Detterback et al, diagnosis and management of lung cancer, American College of Chest Physicians Evidence-Based Clinical Practice Guidelines (3rd edition)
- Policy on image guided lung biopsies: procedure for booking CT guided lung biopsies
<table>
<thead>
<tr>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morriston Hospital lung biopsy checklist</td>
</tr>
<tr>
<td>ABMUHB lung biopsy leaflet</td>
</tr>
<tr>
<td>The Royal College of Radiologists, Recommendations for cross-sectional imaging in cancer management (2nd edition)</td>
</tr>
<tr>
<td>The Royal College Radiologists, Cancer multidisciplinary team meetings – standards for clinical radiologists (2nd edition)</td>
</tr>
<tr>
<td>Operational protocols for Princess of Wales Hospital</td>
</tr>
<tr>
<td>Princess of Wales Hospital, Bridgend lung cancer MDT, ongoing care: non-small cell lung cancer</td>
</tr>
<tr>
<td>Survival data across South Wales sites</td>
</tr>
<tr>
<td>D Martin &amp; D Roberts, New guidelines for pulmonary nodules</td>
</tr>
<tr>
<td>Pathways for nodules</td>
</tr>
<tr>
<td>Guidance on radiofrequency ablation for NSCLC</td>
</tr>
<tr>
<td>SABR UK Consortium, Stereotactic ablative body radiation therapy: A resource</td>
</tr>
<tr>
<td>SABR UK consortium guidelines</td>
</tr>
<tr>
<td>Pleural effusion: Guidelines on diagnosis and initial management, Morriston Hospital Respiratory Unit</td>
</tr>
<tr>
<td>D Martin &amp; D Roberts, staging audit</td>
</tr>
<tr>
<td>Performance status at diagnosis</td>
</tr>
<tr>
<td>Number of Morriston’s NSCLC patients in stages I – IV</td>
</tr>
<tr>
<td>Percentage of lung cancer patients presenting with stage IV disease at Morriston MDT</td>
</tr>
<tr>
<td>Small cell lung cancer : An email alert system to reduce time to first treatment</td>
</tr>
<tr>
<td>USC vs NUSC data</td>
</tr>
<tr>
<td>Royal College of Physicians, National lung cancer audit report (2015)</td>
</tr>
<tr>
<td>Public Health Wales, Lung cancer in Wales: Lung cancer survival and survival by stage</td>
</tr>
<tr>
<td>Number of Morriston NSCLC patients in stages I – IV (2013 – 2014)</td>
</tr>
<tr>
<td>Patients treated at ABMUHB (2015)</td>
</tr>
<tr>
<td>Minutes of M&amp;M meeting held on 23 June 2016 at Morriston Hospital</td>
</tr>
<tr>
<td>Minutes of M&amp;M meeting held on 18 May 2016 at Morriston Hospital</td>
</tr>
<tr>
<td>Minutes from Hywel Dda MDM meeting dated 21 July 2016</td>
</tr>
<tr>
<td>Minutes from Hywel Dda MDM meeting dated 14 July 2016</td>
</tr>
<tr>
<td>Minutes from Morriston MDM meeting dated 18 July 2016</td>
</tr>
<tr>
<td>Minutes from Morriston MDM meeting dated 11 July 2016</td>
</tr>
<tr>
<td>Minutes from Princess of Wales MDM meeting dated 21 July 2016</td>
</tr>
<tr>
<td>Minutes from Princess of Wales MDM meeting dated 14 July 2016</td>
</tr>
<tr>
<td>Attendance list at cardiac governance meetings May 2015 and June 2016</td>
</tr>
<tr>
<td>Attendance list at MDT meeting 11 July 2016</td>
</tr>
<tr>
<td>Attendance list for MDT meeting at Bridgend (July 2016)</td>
</tr>
<tr>
<td>Operating lists (September 2016)</td>
</tr>
<tr>
<td>Activity and outcome data for Mr Goldsmith</td>
</tr>
<tr>
<td>CV of Mr FL and IG</td>
</tr>
<tr>
<td>Timetable for Consultant Thoracic Surgeons</td>
</tr>
</tbody>
</table>
- Job plan for Consultant Surgeons at Morriston Hospital
- Job description for Consultant post at Morriston Hospital
- Structure of Morriston Hospital delivery unit
- Mr AP appraisal documents
- P Brahmabhatt, An audit of the effectiveness of the recovery room chest x-ray
- Cardiothoracic surgery consultant rota (September 2016)
- Copy of tumour site compliance (2014- 2015)
- Copy of tumour site compliance (2016 – 2017)
- Complaints data for Cardiff University Hospital
- CV for Mr AP and Miss MK
- Job plan for Miss MK
- Job description template
- Service overview for Cardiff University Hospital
- Executive structure for Cardiff and Vale University Health Board
- MDT attendance list for Prince Charles Hospital
- MDT minutes University Hospital Cardiff
- Sample of MDT minutes for University Hospital Cardiff
- Sample of Cardiff University Hospital minutes from cardiothoracics consultants meeting
- Specialist services clinical board management structure
- Sample of theatre lists from University Hospital Cardiff
- Activity data for University Hospital Cardiff (2014 – 2015)
- Thoracic surgery in-patient template record
- Thoracic breach data for Cardiff University Hospital
- Cardiff and Vale University Health Board, Thoracic surgery: A guide to your journey for you and your relatives/carers
- Funding for the NHS data
- Email dated 4 January 2016 from Mr Goldsmith to Cwm Taf Local Health Board
- Resection rates for histological NSCLC
- Health board overview presentation
- Thoracic surgery expansion and sustainability: Service and funding proposal 2016/17 (March 2016)
- WHHSC funding to thoracic surgery in South Wales (2011 – 2016)
- Patient satisfaction surveys for CUH
- Letter dated 10 September 2016 from Mr Lhote