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**SCTS**

**Thoracic Surgery Survey**

**2022**

**Part 1: Units**

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**Introduction**

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**Abstract**

**Introduction**

The Society for Cardiothoracic Surgery (SCTS) is the professional body for cardiothoracic surgery in Great Britain & Ireland. Each of the five nations’ healthcare systems is separate but related. The COVID-19 pandemic brought about many changes, and recovery is ongoing with much practice variation.

The ‘Thoracic Surgery Survey’ aims to introduce a sustainable and recurring review of service provision including unit resources, organisation, and workforce. The survey will provide a baseline for ongoing assessments and can be updated and repeated to identify changes in practice and service provision. Part 1 focuses on unit resources and organisation.

This work represents the considerable efforts and sustained collaboration by members of the SCTS Thoracic Surgery sub-committee, the Thoracic Forum and our wider professional community.

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**Abstract**

**Survey of thoracic surgery provision across SCTS units in Great Britain and Ireland in 2022**

**Introduction:** The COVID-19 pandemic brought about many changes. By the Summer of 2022, services have restarted and are adapting to the ‘new normal’. To gain a contemporary overview of thoracic surgery units and their staffing, we conducted an online survey. We aim to use this information for a rolling process of benchmarking, unit resourcing and organisation, workforce planning, and development of standards for thoracic surgery.

**Methods:** Surveys were developed in Google Forms by a consensus process which involved circulating the surveys to the ‘Thoracic Forum’ and the SCTS Thoracic Surgery sub-committee.Beta versions were tested and modified before launch.We designed the surveys to be updated and used repeatedly to allow serial data collection. We sent surveys through Google Forms to all thoracic surgery units in Great Britain and Ireland. Units were followed up to encourage replies from the unit lead or another consultant member. Data collection ran between July to September 2022.

**Results** All adult thoracic surgery units participated (n=38). We present data on Day of Surgery Admission (DOSA), Enhanced Recovery after Surgery (ERAS), thoracic ward organisation, robotic thoracic surgery, and lung volume reduction.

**Conclusion**

This overview of thoracic surgery is a snapshot of the current SCTS provision of thoracic surgery. This methodology and data can be used as a reference point for future surveys.

**Summary**

**1.0** List of the 38 thoracic surgery units surveyed.

 **2.1** Day of Surgery Admissions (DOSA) range from 0-10% to 91-100% with a median of 51-60% (mean51.3%, IQR 11-90%)

**3.1** Enhanced Recovery After Surgery (ERAS) ranges from 0-10% to 91-100% with a median of 61-70% (mean 61.1%, IQR 31-90%).

**4.1** There are 18 units (47%) with and 20 units (53%) without a dedicated thoracic surgery ward (*n =* 38).

**4.2** There are 21 units (55%) with and 17 units (45%) without a dedicated thoracic HDU/post-op recovery area (*n =* 38).

**5.1** There are 22 units (58%) with and 16 units (42%) without approval for a robotic programme (*n =* 38).

**5.2** In total, 18 units (47%) have started and 20 units (53%) have not started a robotic programme (*n =* 38).

**5.3** Robotic System proposed or in use

All units that have started or propose to use robotics have specified a system from Intuitive.

**6.1** Lung Volume Reduction

|  |  |  |  |
| --- | --- | --- | --- |
| **No. of units (%)** | **LVR MDT** | **Endobronchial valves** | **LVR surgery** |
| 26 (68.5) | **✓** | **✓** | **✓** |
| 1 (2.5) | **✓** |  |  |
| 2 (5.5) | **✓** |  | **✓** |
| 1 (2.5) |  | **✓** | **✓** |
| 4 (10.5) |  |  | **✓** |
| 4 (10.5) |  |  |  |

**Section 1: Participating units**

**List of participating units**

**List of participating SCTS units**

**Eire (3)**

1. Galway University Hospital
2. St James's Hospital, Dublin
3. The Mater Hospital, Dublin

**England (29)**

1. Basildon University Hospital
2. Bristol Royal Infirmary
3. Castle Hill Hospital, Hull
4. Derriford Hospital, Plymouth
5. Freeman Hospital, Newcastle
6. Glenfield Hospital, Leicester
7. Guy's Hospital, London
8. Hammersmith Hospital, London
9. Harefield Hospital, London
10. James Cook University Hospital, Middlesbrough
11. King's College Hospital, London
12. St James’s University Hospital, Leeds
13. Liverpool Heart and Chest Hospital
14. New Cross Hospital, Wolverhampton
15. Norfolk and Norwich University Hospital
16. Northern General Hospital, Sheffield
17. Nottingham University Hospitals
18. Oxford University Hospitals
19. Queen Elizabeth Hospital, Birmingham
20. Royal Brompton Hospital, London
21. Royal Papworth Hospital, Cambridge
22. Southampton General Hospital
23. St Bartholomew's Hospital, London
24. St George's Hospital, London
25. University College London Hospital
26. University Hospital Coventry and Warwickshire
27. University Hospital North Midlands, Stoke-on-Trent
28. Victoria Hospital, Blackpool
29. Wythenshawe Hospital, Manchester

**Northern Ireland (1)**

1. Royal Victoria Hospital, Belfast

**Scotland (3)**

1. Aberdeen Royal Infirmary
2. Golden Jubilee National Hospital, Glasgow
3. Royal Infirmary of Edinburgh

**Wales (2)**

1. Morriston Hospital, Swansea
2. University Hospital of Wales, Cardiff

**Section 2: Day of Surgery Admission (DOSA)**

**Figure 2.1** Day of Surgery Admissions (DOSA) range from 0-10% to 91-100% across units, with a median category of 51-60% (*mean =* 51.3, IQR 11-90%).

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**Section 3: Enhanced Recovery**

**after Surgery (ERAS)**

**Figure 3.1** Rates of Enhanced Recovery After Surgery (ERAS) range from 0-10% to 91-100% across units, with a median group of 61-70% (*mean =* 61.1, IQR 31-90%).

**Section 4: Thoracic ward structures**

 **Dedicated Thoracic surgery ward Dedicated thoracic HDU/post-op recovery area**

|  |  |
| --- | --- |
| **Dedicated thoracic surgery ward** | **No dedicated ward** |
| Castle Hill Hospital, Hull | Aberdeen Royal Infirmary |
| Derriford Hospital, Plymouth  | Basildon University Hospital |
| Glenfield Hospital, Leicester | Bristol Royal Infirmary |
| Golden Jubilee National Hospital, Glasgow | Freeman Hospital, Newcastle  |
| Guy's Hospital, London | Hammersmith Hospital, London |
| Harefield Hospital, London | James Cook University Hospital, Middlesbrough |
| St James’s University Hospital, Leeds | King's College Hospital, London |
| Liverpool Heart and Chest Hospital | Morriston Hospital, Swansea |
| Norfolk and Norwich University Hospital | New Cross Hospital, Wolverhampton |
| Nottingham University Hospitals  | Northern General Hospital, Sheffield  |
| Southampton General Hospital | Oxford University Hospitals  |
| St Bartholomew's Hospital, London | Queen Elizabeth Hospital, Birmingham |
| St George's Hospital, London | Royal Brompton Hospital, London |
| The Mater Hospital, Dublin  | Royal Infirmary of Edinburgh |
| University College London Hospital | Royal Papworth Hospital, Cambridge |
| University Hospital Coventry and Warwickshire | Royal Victoria Hospital, Belfast |
| Galway University Hospital | St. James's Hospital, Dublin |
| Wythenshawe Hospital, Manchester | University Hospital of Wales, Cardiff |
|   | University Hospital North Midlands, Stoke-on-Trent |
|   | Victoria Hospital, Blackpool |

**Figure 4.1** There are 18 units with (47%) and 20 units without (53%) a dedicated thoracic surgery ward (*n =* 38).

|  |  |
| --- | --- |
| **Dedicated thoracic HDU/post op recovery area**  | **No dedicated area** |
| Basildon University Hospital | Aberdeen Royal Infirmary |
| Castle Hill Hospital, Hull | Bristol Royal Infirmary |
| Derriford Hospital, Plymouth  | Hammersmith Hospital, London |
| Freeman Hospital, Newcastle  | James Cook University Hospital, Middlesbrough |
| Glenfield Hospital, Leicester | King's College Hospital, London |
| Golden Jubilee National Hospital, Glasgow | Liverpool Heart and Chest Hospital |
| Guy's Hospital, London | Morriston Hospital, Swansea |
| Harefield Hospital, London | New Cross Hospital, Wolverhampton |
| St James’s University Hospital, Leeds | Norfolk and Norwich University Hospital |
| Nottingham University Hospitals  | Northern General Hospital, Sheffield  |
| Queen Elizabeth Hospital, Birmingham | Oxford University Hospitals  |
| Royal Infirmary of Edinburgh | Royal Brompton Hospital, London |
| Royal Papworth Hospital, Cambridge | Royal Victoria Hospital, Belfast |
| St George's Hospital, London | Southampton General Hospital |
| St. James's Hospital, Dublin | St Bartholomew's Hospital, London |
| The Mater Hospital, Dublin  | University Hospital of Wales, Cardiff |
| University College London Hospital | University Hospital North Midlands, Stoke-on-Trent |
| University Hospital Coventry and Warwickshire |   |
| Galway University Hospital |   |
| Victoria Hospital, Blackpool |   |
| Wythenshawe Hospital, Manchester |   |

**Figure 4.2** There are 21 units with (55%) and 17 units without (45%) a dedicated thoracic HDU / post op recovery area (*n =* 38).

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**Section 5: Robotic thoracic surgery**

**Approval for robotic thoracic surgery programme**

**Established robotic thoracic surgery operations**

**Robotic system proposed or in use**

|  |  |
| --- | --- |
| **Approval for robotic programme** | **No approval for robotic programme** |
| Aberdeen Royal Infirmary | Basildon University Hospital |
| Castle Hill Hospital, Hull | Bristol Royal Infirmary |
| Derriford Hospital, Plymouth  | Glenfield Hospital, Leicester |
| Freeman Hospital, Newcastle  | Hammersmith Hospital, London |
| Golden Jubilee National Hospital, Glasgow | Harefield Hospital, London |
| Guy's Hospital, London | King's College Hospital, London |
| James Cook University Hospital, Middlesbrough | Morriston Hospital, Swansea |
| St James’s University Hospital, Leeds | Northern General Hospital, Sheffield  |
| Liverpool Heart and Chest Hospital | Oxford University Hospitals  |
| New Cross Hospital, Wolverhampton | Queen Elizabeth Hospital, Birmingham |
| Norfolk and Norwich University Hospital | Royal Papworth Hospital, Cambridge |
| Nottingham University Hospitals  | Royal Victoria Hospital, Belfast |
| Royal Brompton Hospital, London | University Hospital of Wales, Cardiff |
| Royal Infirmary of Edinburgh | University Hospital Coventry and Warwickshire |
| Southampton General Hospital | Victoria Hospital, Blackpool |
| St Bartholomew's Hospital, London | Wythenshawe Hospital, Manchester |
| St George's Hospital, London |   |
| St. James's Hospital, Dublin |   |
| The Mater Hospital, Dublin  |   |
| University College London Hospital |   |
| Galway University Hospital |   |
| University Hospital North Midlands, Stoke-on-Trent |   |

**Figure 5.1** There are 22 units with (58%) and 16 units without (42%) approval for a robotic programme (*n =* 38).

|  |  |
| --- | --- |
| **Started thoracic surgery robotic operations** | **Not started robotic operations** |
| Aberdeen Royal Infirmary | Basildon University Hospital |
| Castle Hill Hospital, Hull | Bristol Royal Infirmary |
| Derriford Hospital, Plymouth  | Glenfield Hospital, Leicester |
| Freeman Hospital, Newcastle  | Hammersmith Hospital, London |
| Golden Jubilee National Hospital, Glasgow | Harefield Hospital, London |
| Guy's Hospital, London | King's College Hospital, London |
| James Cook University Hospital, Middlesbrough | Morriston Hospital, Swansea |
| St James’s University Hospital, Leeds  | Northern General Hospital, Sheffield  |
| Liverpool Heart and Chest Hospital | Oxford University Hospitals  |
| New Cross Hospital, Wolverhampton | Queen Elizabeth Hospital, Birmingham |
| Norfolk and Norwich University Hospital | Royal Brompton Hospital, London |
| Nottingham University Hospitals  | Royal Infirmary of Edinburgh |
| Southampton General Hospital | Royal Papworth Hospital, Cambridge |
| St Bartholomew's Hospital, London | Royal Victoria Hospital, Belfast |
| St George's Hospital, London | University Hospital of Wales, Cardiff |
| St. James's Hospital, Dublin | University Hospital Coventry and Warwickshire |
| The Mater Hospital, Dublin  | Galway University Hospital |
| University College London Hospital | University Hospital North Midlands, Stoke-on-Trent |
|   | Victoria Hospital, Blackpool |
|   | Wythenshawe Hospital, Manchester |

**Figure 5.2** In total, 18 units have started (47%) and 20 units have not started (53%) a robotic programme (*n =* 38).



**Figure 5.3 / Table 5.3** Robotic System proposed or in use

|  |  |
| --- | --- |
| **Name of Thoracic Surgery Unit** | **Name of the robotic system proposed or in use?** |
| Morriston Hospital, Swansea | Intuitive |
| Southampton General Hospital | Intuitive |
| St George's Hospital, London | Intuitive |
| Galway University Hospital | Intuitive |
| University Hospital North Midlands, Stoke-On-Trent | Intuitive |
| Wythenshawe Hospital, Manchester | Intuitive |
| New Cross Hospital, Wolverhampton | Intuitive |
| Guy's Hospital, London | Intuitive |
| Norfolk and Norwich University Hospital | Intuitive |
| Nottingham University Hospitals  | Intuitive |
| Derriford Hospital, Plymouth  | Intuitive |
| University College London Hospital | Intuitive |
| St. James's Hospital, Dublin | Intuitive |
| The Mater Hospital, Dublin  | Intuitive |
| Golden Jubilee National Hospital, Glasgow | Intuitive |
| Aberdeen Royal Infirmary | Intuitive |
| Liverpool Heart and Chest Hospital | Intuitive |
| Bristol Royal Infirmary | Intuitive |
| Royal Infirmary of Edinburgh | Intuitive |
| Royal Brompton Hospital, London | Intuitive |
| University Hospital of Wales, Cardiff | Intuitive |
| James Cook University Hospital, Middlesbrough | Intuitive |
| St James’s University Hospital, Leeds  | Intuitive |
| Freeman Hospital, Newcastle  | Intuitive |
| University Hospital Coventry and Warwickshire | Intuitive |
| St Bartholomew's Hospital, London | Intuitive |
| Castle Hill Hospital, Hull | Intuitive |
| Basildon University Hospital | N/A |
| Harefield Hospital, London | N/A |
| Oxford University Hospitals  | N/A |
| Royal Victoria Hospital, Belfast | N/A |
| Glenfield Hospital, Leicester | N/A |
| Hammersmith Hospital, London | N/A |
| King's College Hospital, London | N/A |
| Queen Elizabeth Hospital, Birmingham | N/A |
| Royal Papworth Hospital, Cambridge | N/A |
| Northern General Hospital, Sheffield  | N/A |
| Victoria Hospital, Blackpool | N/A |

**Section 6: Lung volume reduction**

**Lung volume reduction: MDT, Valves, Surgery**

**Table 6.1** Lung Volume Reduction

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Thoracic Surgery Unit** | **Does your unit participate in a LVR MDT?** | **Does your unit perform LVR by valves?** | **Does your unit perform LVR by surgery?** |
| Aberdeen Royal Infirmary | **No** | **No** | Yes |
| Basildon University Hospital | **No** | **No** | Yes |
| Bristol Royal Infirmary | Yes | Yes | Yes |
| Castle Hill Hospital, Hull | Yes | Yes | Yes |
| Derriford Hospital, Plymouth  | Yes | **No** | **No** |
| Freeman Hospital, Newcastle  | Yes | **No** | Yes |
| Glenfield Hospital, Leicester | Yes | Yes | Yes |
| Golden Jubilee National Hospital, Glasgow | Yes | Yes | Yes |
| Guy's Hospital, London | Yes | Yes | Yes |
| Hammersmith Hospital, London | **No** | **No** | **No** |
| Harefield Hospital, London | Yes | Yes | Yes |
| James Cook University Hospital, Middlesbrough | Yes | Yes | Yes |
| King's College Hospital, London | **No** | **No** | **No** |
| St James’s University Hospital, Leeds | Yes | Yes | Yes |
| Liverpool Heart and Chest Hospital | Yes | Yes | Yes |
| Morriston Hospital, Swansea | **No** | **No** | **No** |
| New Cross Hospital, Wolverhampton | Yes | Yes | Yes |
| Norfolk and Norwich University Hospital | Yes | Yes | Yes |
| Northern General Hospital, Sheffield  | Yes | Yes | Yes |
| Nottingham University Hospitals  | Yes | Yes | Yes |
| Oxford University Hospitals | Yes | Yes | Yes |
| Queen Elizabeth Hospital, Birmingham | Yes | Yes | Yes |
| Royal Brompton Hospital, London | Yes | Yes | Yes |
| Royal Infirmary of Edinburgh | Yes | Yes | Yes |
| Royal Papworth Hospital, Cambridge | Yes | Yes | Yes |
| Royal Victoria Hospital, Belfast | **No** | **No** | Yes |
| Southampton General Hospital | Yes | Yes | Yes |
| St Bartholomew's Hospital, London | Yes | Yes | Yes |
| St George's Hospital, London | Yes | Yes | Yes |
| St. James's Hospital, Dublin | **No** | **No** | **No** |
| The Mater Hospital, Dublin  | Yes | Yes | Yes |
| University College London Hospital | Yes | Yes | Yes |
| University Hospital of Wales, Cardiff | Yes | Yes | Yes |
| University Hospital Coventry and Warwickshire | **No** | **No** | Yes |
| Galway University Hospital | **No** | Yes | Yes |
| University Hospital North Midlands, Stoke-on-Trent | Yes | Yes | Yes |
| Victoria Hospital, Blackpool | Yes | **No** | Yes |
| Wythenshawe Hospital, Manchester | Yes | Yes | Yes |

**Lung Volume Reduction summary**

|  |  |  |  |
| --- | --- | --- | --- |
| **No. of units (%)** | **LVR MDT** | **Endobronchial valves** | **LVR surgery** |
| 26 (68.5) | **✓** | **✓** | **✓** |
| 1 (2.5) | **✓** |  |  |
| 2 (5.5) | **✓** |  | **✓** |
| 1 (2.5) |  | **✓** | **✓** |
| 4 (10.5) |  |  | **✓** |
| 4 (10.5) |  |  |  |

**Closing comments**

**Survey Question: What would improve your professional life?**

A word cloud generated the following map.

A word cloud is a speculative tool which gives a visual impression of the issues raised by the respondents. We have removed meaningless terms but otherwise have used the actual words submitted. There is an overlap between the terms.

This serves to stimulate discussion on the future needs and aspirations of the professional community.

