



British Spine Registry

**End of year annual report
(March 2015 – March 2016)**

Executive Summary

The British Spinal Registry BSR was established in May 2012 with the aim to improve patient safety and monitor the results of spinal surgery. The information captured and tracked on the Registry helps to find out which are the best and the most effective types of spinal surgery. The Registry now has 835 users registered and 18 573 pathways added. The number of patients added to the Registry has increased by 66% over the year and currently stands at 43 636.

Over the last year the BSR has grown from strength to strength. We have more users than ever entering more patient data and we have invested more resource into the Registry, including centre visitations on request. The British Association of Spine Surgeons (BASS), British Scoliosis Society (BSS) and the Society of British Neurological Surgeons (SBNS) are all major stakeholders in the BSR. This enables data collection on all Spinal cases undertaken in the UK.

In 2015/2016 we have signed off on a lot of development work. We are about to launch a new version of the registry which includes

1. The ability to print operation notes
2. Mandatory field sets for the lumbar degenerative and spinal deformity pathways.
3. Our first real time reporting tools called 'Widgets'. These tell you exactly the state of play of your registry telling you how many patients you have on the system, which operations need recording when forgotten and outcome data at pathway level.
4. Rather than having to search for an audit form we are now integrating them within forms. For example enter magedec rods as a prosthesis and a series of relevant questions will pop up. Enter cauda equina Syndrome and again relevant questions appear.

Goals and aims

The role of the BSR is to improve patient safety and monitor the results of spinal surgery through effective and meaningful data capture.

The data collected includes clinical data, outcome scores, procedure details and complications. This secure and completely anonymised data set is available to BASS members and will help facilitate important research and development, audit and national comparisons in which we (the BSR Executive Committee and BASS) hope to draw conclusions on which are the best and the most effective types of spinal surgery.

One of the Registry's main aims is to ensure that the quality and validity of data is accurate and of a high standard. For this reason it is so important patients supply their own PROMS and the data is clinically validated resulting in meaningful data for individual surgeons, as well as for wider research and analysis.

The future vision for the BSR is that every practicing spine surgeon and allied health professionals and their associated units will contribute to the Registry, allowing more representative research and enabling a more robust and unified way for spinal surgeons to conform to revalidation using the reporting function. Another key vision is that every surgeon will be provided with data relating to their clinical practice for audit and feedback purposes.

Clinical aims

The Registry Steering Group, on behalf of the parent spinal societies have agreed a minimum, mandatory dataset pertaining to the core procedures in spinal surgery.

Within the largest sub-group of Lumbar Degenerative pathology, the focus is to be placed upon single level micro discectomy. This is the most common single procedure performed within the BSR, and as such will attract greater scrutiny. New forms have been developed to enable simpler, more efficient capture of these key data points to allow in-depth analysis of this particular procedure. The existing dataset was presented to the Annual Meeting in Bath March 2015 and is now actively in place.

The BSS Executive agreed that their focus would be upon the surgical treatment of Adolescent Idiopathic Scoliosis, again the most common indication for surgery. Once more, new forms are in place to enable streamlined capture of the key data points to facilitate this analysis. In addition, focus will be placed upon the new magnetically expandable growing systems currently in use across the country.

It is the stated aim of the BSS President that all spinal deformity procedures will be captured upon the BSR by the end of 2016. We believe by making the system even more user friendly for the surgical team, and by involving patients in the improvement of their surgical care through use of the BSR, this aim is achievable.

Achievements and areas for improvement

Over the last 12 months the registry has achieved a lot:

- The total number of registered users has reached 835
- The registry has reached well over 40,000 patients, increasing by 66% on last year.
- Over 282,986 forms have been completed.
- A new version with mandatory fields will be demonstrated at Britspine 2016 and go live by April 25th.

The registry team have been listening to feedback in order to improve and develop the registry for the benefit of users and patients, to ensure it remains ultimately useful, meaningful and valuable.

From the feedback received the steering group have decided over the next 12 months to focus on:

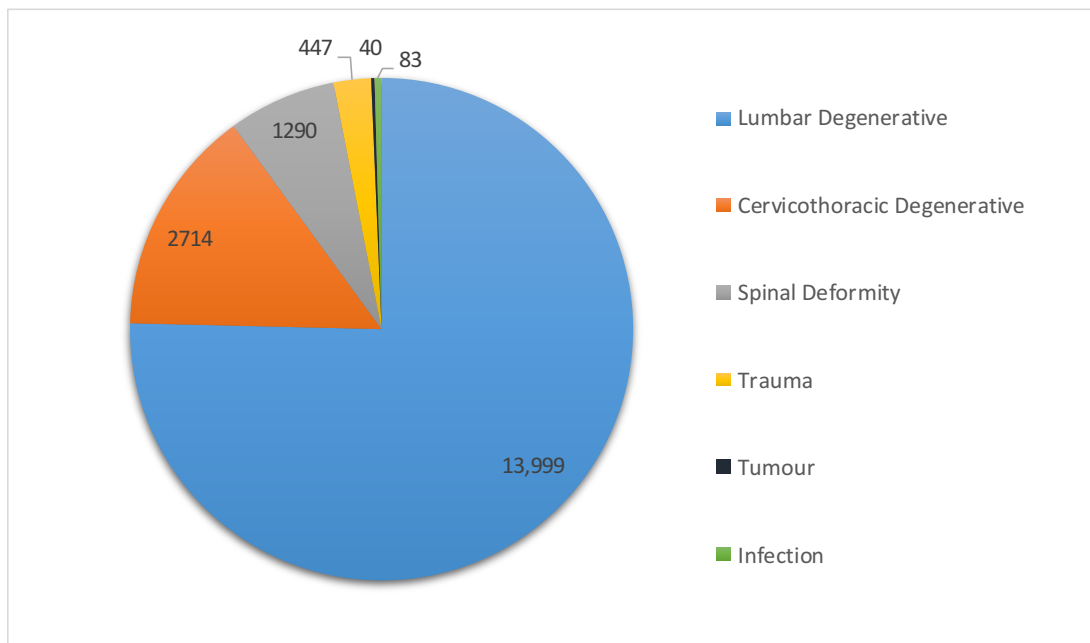
- Introduction of groups allowing comparative data share within and between units for research and audit purposes.
- Realtime reporting for pathways of patient outcomes
- Historical Data upload from other data sets (e.g. Spine tango & Sprint)

Registry usage data

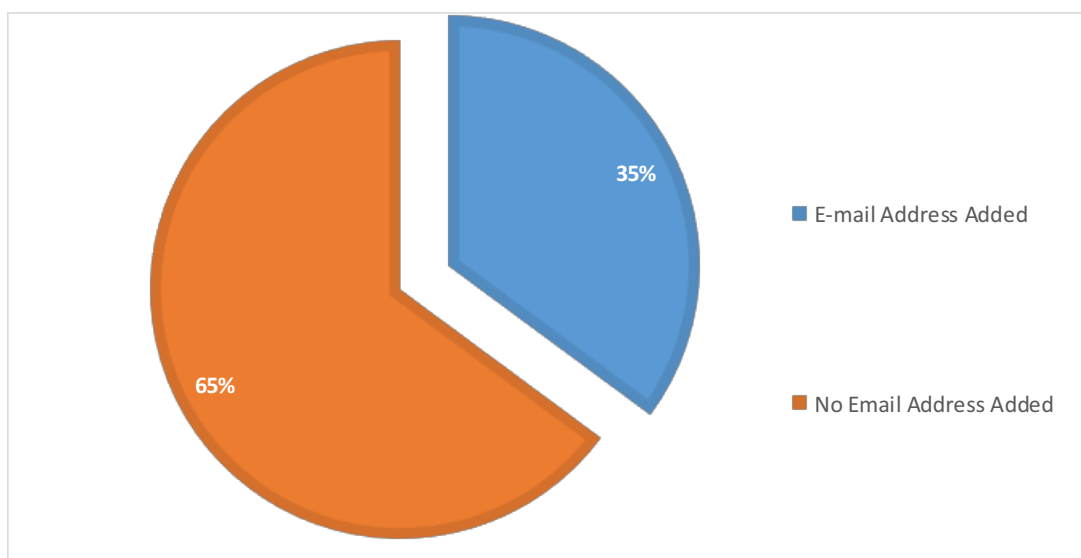
Total number of users: 835 (**22% increase** from 2014-15)

Total number of patients: 43,636 (**66% increase** from 2014-15)

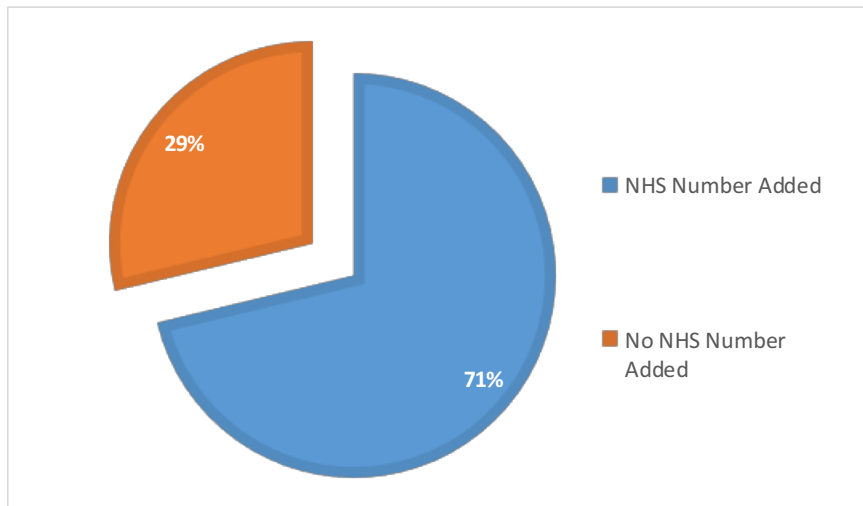
Number of patients added in 2015/16 broken down by pathway:



Patients with e-mail addresses:



Patient with NHS Number:

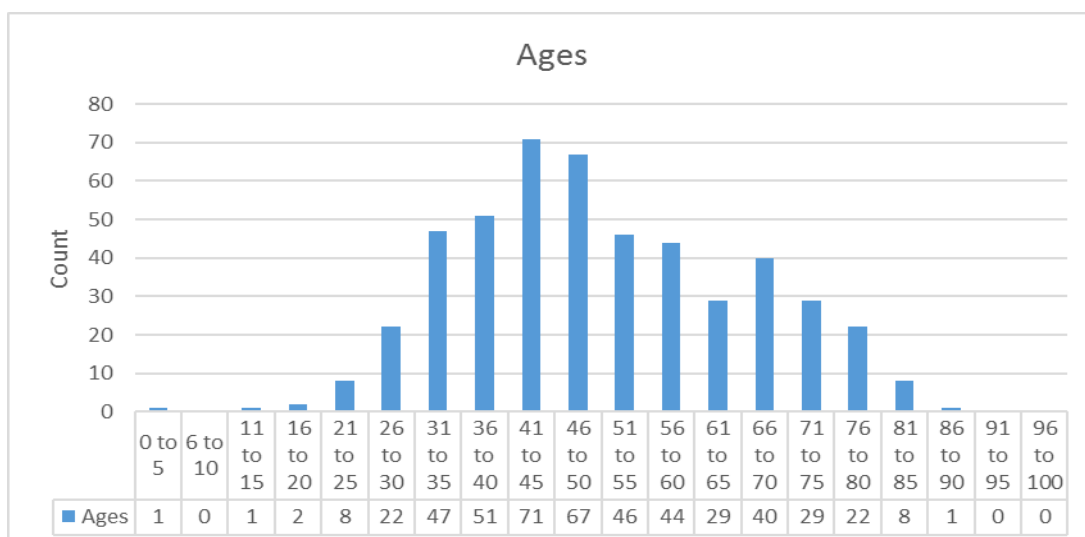


There are 218 surgeons actively adding data into the BSR.

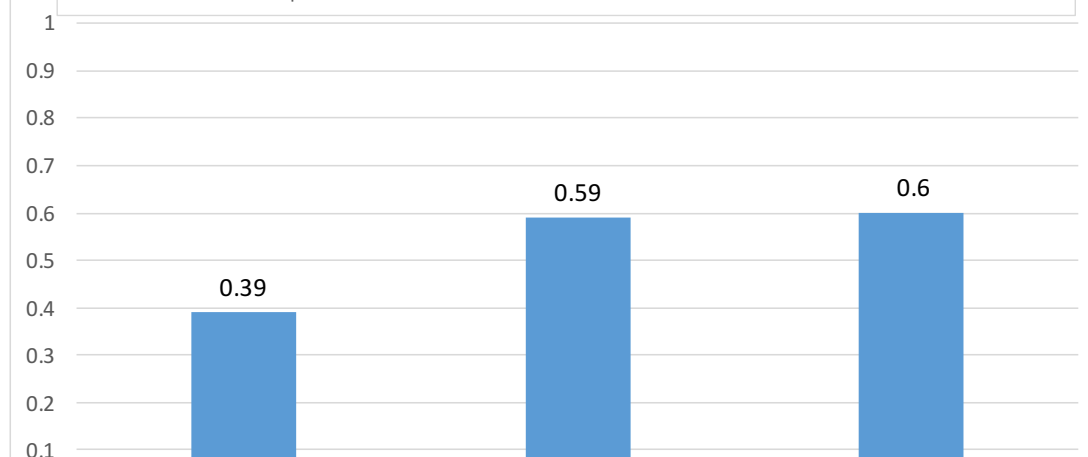
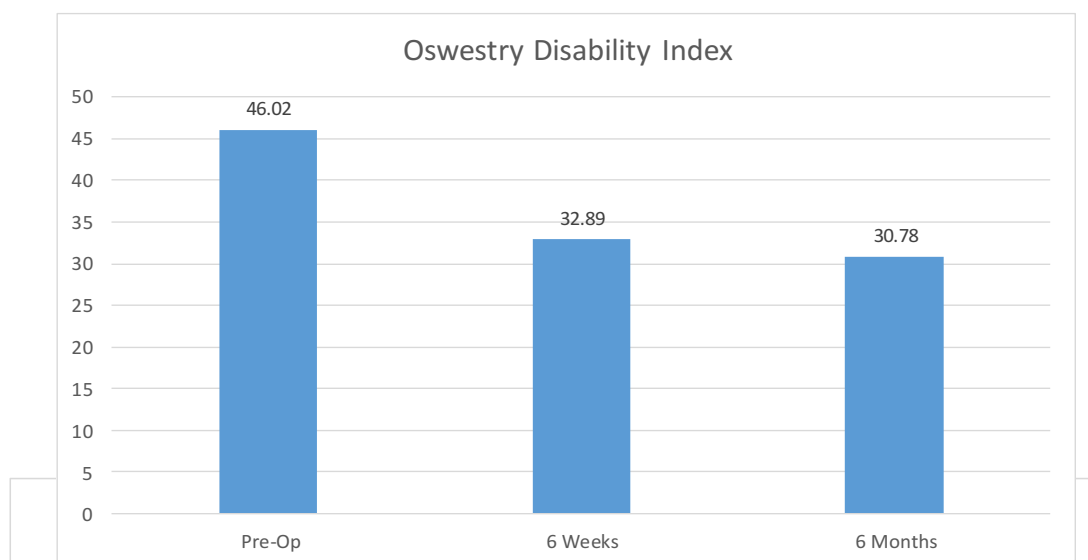
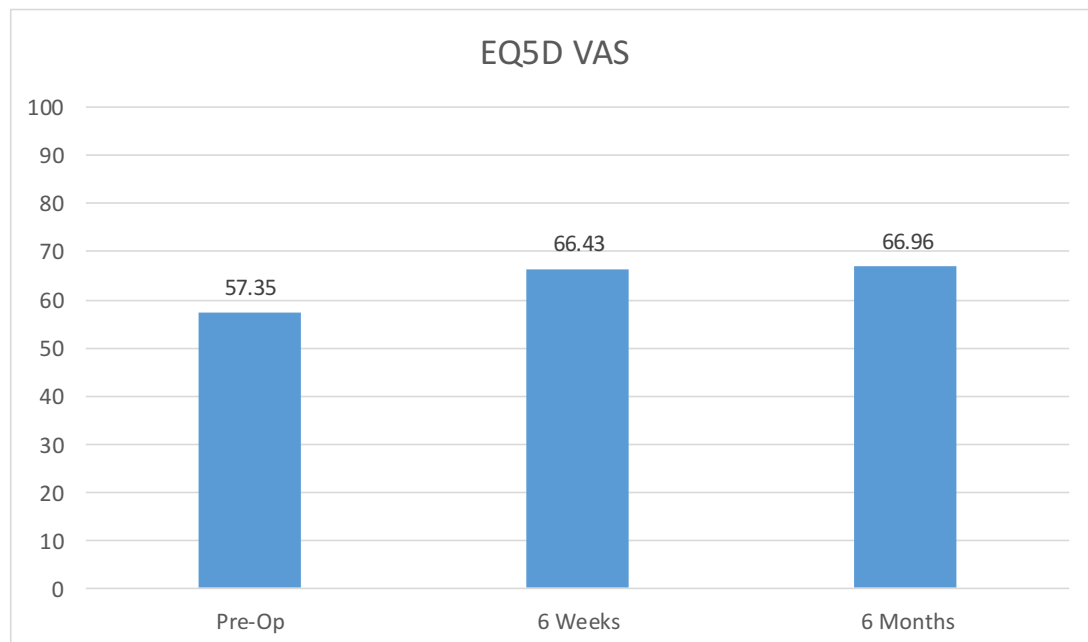
Clinical analysis

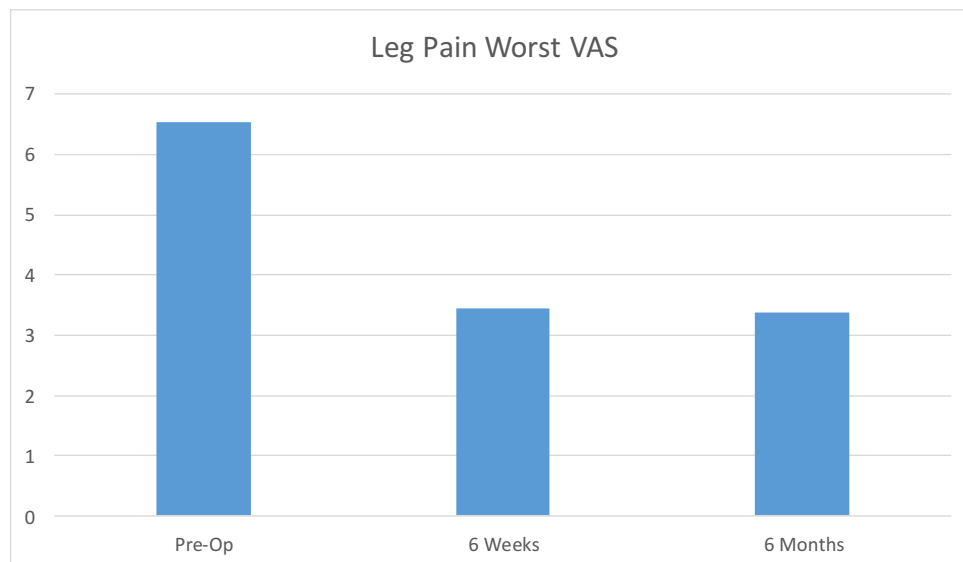
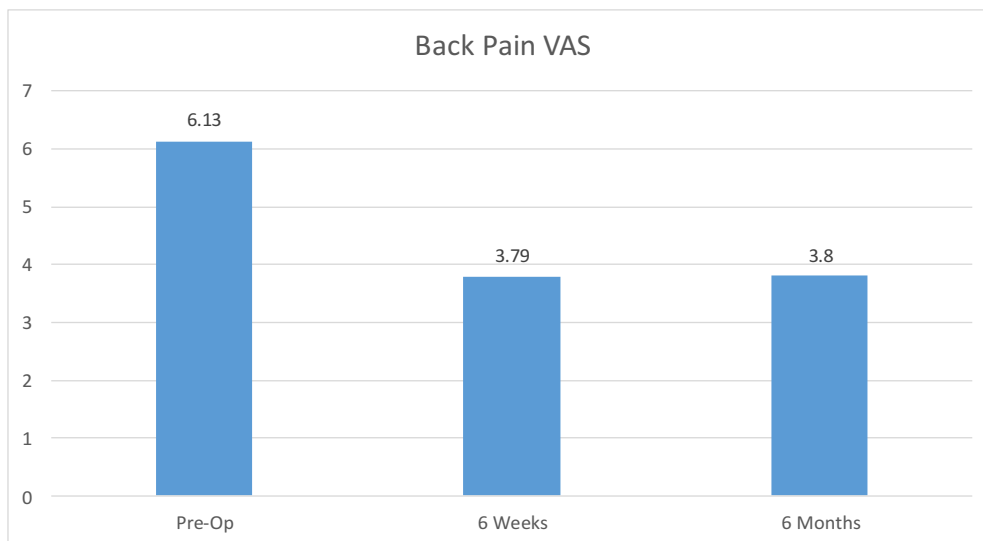
To date the BSR includes information on 2532 Primary Lumbar Decompressions, which include 1921 discectomies. The total complication rate is for these procedures, including immediate and post-operative problems was 0%.

The patient age range was as below:



The recorded Patient Reported Outcome Measures (PROMs) are as below:





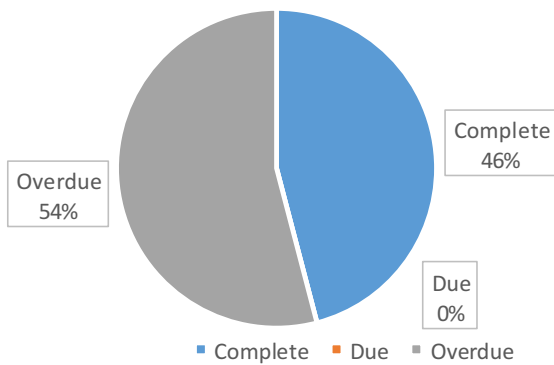
The blue bar represents the surgical scores for decompressions, both pre and post-operatively.

The average time per procedure for the decompression group was 56 minutes.

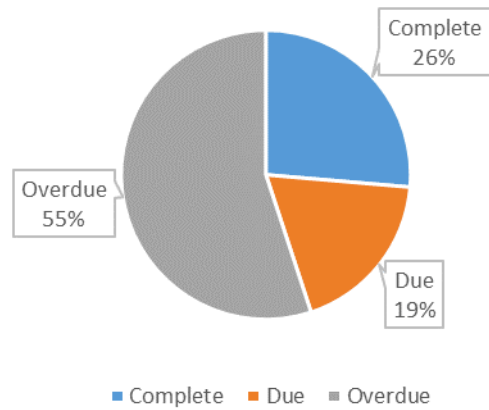
The collection of PROMs is fundamental to the measurement of outcomes of spinal surgery.

The completion rates for all three scores show an improvement, over the last year to the current levels as shown below, especially in the 6 month scores with the overdue % decreasing from 57% to just 24%.

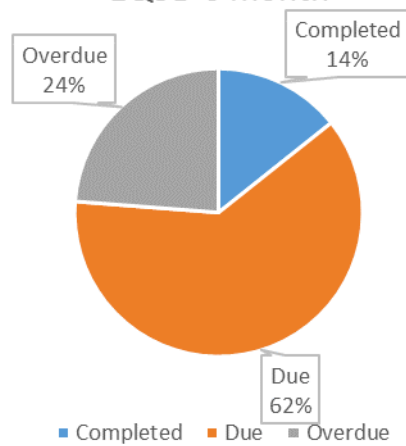
EQ5D Pre op



EQ5D 6 Week

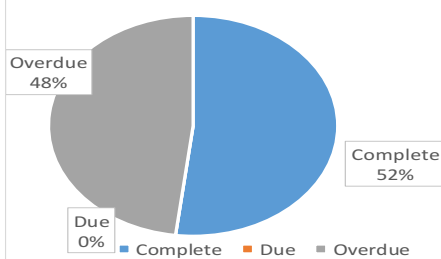


EQ5D 6 month

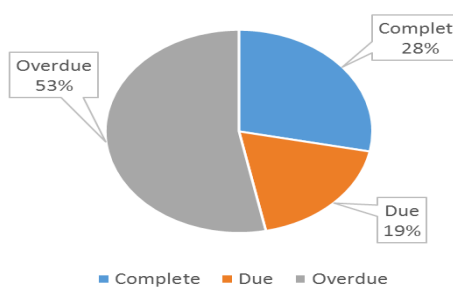


These measures will be reviewed annually, and are seen as good indicators of compliance with the BSR. Patient involvement is key to the success of this project, and further engagement of individual and groups of patients is planned.

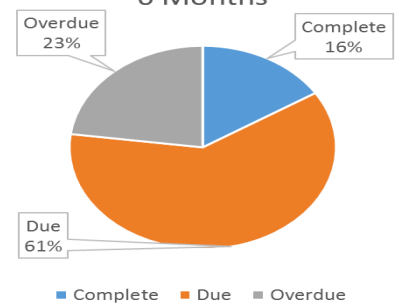
Pre-Op



6 Weeks



6 Months



Organisation

Amplitude provides the BSR with a 9 to 5 support desk..

The steering group are always interested in hearing your views on development or problems faced with the registry. If you would like to get in touch with us, please contact the customer support desk on **customer.support@amplitude-clinical.com**. If you wish to arrange a free visitation on getting the registry up and running in your institution please email **mike.hutton@nhs.net**.

The Steering Group

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Conclusion

Over the last year the BSR has grown from strength to strength. We have more users than ever entering more patient data.

This report has highlighted that inputting patient email addresses and NHS numbers as well as surgeon compliance are the key areas we need to focus on in the coming year. The marketing support and visitation programme will help improve surgeon compliance with training emails and our dedicated customer support team will be there to answer any questions or provide over-the-phone training.

Going into 2016/17 our main vision for the BSR is still that every interventional spine procedure possible will be entered into the Registry, allowing the research generated from this process to validate what we do to provide benefit to our patients and credibility to the health commissioners.

The BSR would like to thank all participating surgeons and their delegates for their contribution to the registry and we hope 2016/17 will be another successful year.

Mike Hutton (BASS) & Lee Breakwell (BSS)

