British spine surgery

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It is an exciting time to be a spine surgeon. Indeed, it has been for the last decade. The spine surgery is probably one of the most rapidly changing surgical specialities. It comes together as the “bastard child” of orthopaedics and neurosurgery. Whilst being the offspring of two specialties has created problems, it has also brought many opportunities.

In spinal surgery, there is now a massive repertoire of spinal operations that yield reliable, predictable results for our patients. Few surgical specialties have such breadth of variation from the skull, through the mouth, through the chest or abdominal cavity to the sacrum, from the front, the back or even a bit on the side. Further variety is provided by the new minimally invasive techniques including endoscopy, percutaneous instrumentation, microsurgical procedures and at the other end of the spectrum major corrective deformity surgery.

The evidence for many of our surgical procedures is robust. We have a strong evidence-based specialty. This has been helped by the randomised controlled studies in the new techniques of spinal arthroplasty, vertebroplasty, interspinous spacers and re-evaluation of conventional techniques with the Sciatica study from Holland and the controversial and expensive SPORT studies from North America [1–5]. Not all of these have provided the results we were expecting, particularly the Vertebroplasty studies Buchbinder and Kallmes [6, 7]. Randomised controlled studies are expensive and complex, but all the effort can come to nil if there are basic flaws in the design, as so eloquently described by Boszczyk [8].

All these studies have been made more accessible by investigators all speaking the same language of outcome measures, e.g. Oswestry Disability Index, Neck Disability and Myelopathy Disability index, Swiss Stenosis score and the generic outcome measures of Euro-Qol and SF 36 [9–15]. There have also been welcome British developments in outcome scales with BASS offering web-based outcome clinical record (<http://www.spineregistry.co.uk>). This will become a very important research and outcome resource for the British Association of Spinal Surgeons. As a spinal community we owe a great debt to those members of the executive, especially Lee Breakwell, who have worked so diligently to create the British Spine Registry. We may all have had a similar vision, but it is their hard work and tenacity that has delivered a working system.

It is also important to acknowledge the successful work of our predecessors, particularly our outgoing President Tim Germon and our society’s Secretary John Fowler. They have created an open and democratic professional society with a solid infrastructure. We should now look forward to how we can improve matters further for our patients, and indeed improve standards for us as spine professionals. Spine is a stressful and highly demanding specialty. There is an important role for BASS to facilitate the on-going training of its surgeons. We will act as an advocate for our patients and surgeons in political and social as well as medical aspects. How it all links up with the other spine societies through the umbrella of the UK Spine Surgery Board will be seen.

Some of the biggest challenges in the forthcoming years will relate to medical malpractice, insurance and of course, commissioning. These will be the central areas for the BASS executive.

We probably have to accept that medical malpractice protection is expensive. Market forces will dictate this and

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it is largely outside our immediate control. The rapid increase in subscriptions is no doubt driven by lawyers and the promise of no win no fee advertisements. However as a spinal community, we must accept some responsibility. Litigation can be severely curtailed if we do not make any mistake. Therefore, education and attendance at Spinal Specialty meetings must play a key part. We should be able to obtain a running summary from NHS litigation authority and the main indemnity societies on the most common perceived mistakes (e.g. wrong side or level, poor consent, inappropriate surgery, spinal cord monitoring issues, inadequate support structures and infection). The issues of wrong level, side and consent should be correctable with fairly simple steps. By regular communication with our members, there will be lessons learnt and ultimately medical indemnity costs should fall. There will, of course, be awkward issues of surgeons doing certain spine operations outside their competence or standard usual practice. This will be a more difficult area to protect against without internal peer review. Most surgeons do not like being told what they can do and cannot do. We all need to develop as surgeons and most surgeons' practice goes through several stages during their consultant careers. This will be a balancing act. Likewise, there are so-called expert opinions who are giving medico legal advice outside their everyday clinical practice and, hence expertise. This is not reasonable. There are many legitimate considerations about these issues, which are being actively examined by our professional standards committee, lead by Paul Thorpe.

We are grateful to John Carvel for his Spine Task Force, which has recently reported its recommendations [16]. It is unlikely, in a large document like this, that there will be complete harmony with all the opinions expressed. However, most will recognise that this opus is overall a very fair and well-balanced document. There are major challenges on how to deliver an emergency spine surgery service. The location of surgeons is fragmented between different units and of course, orthopaedics and neurosurgery for historical reasons. The enormous volume of elective work conflicts with this emergency workload, particularly in this age of targets. Complex spine work involving reconstruction, particularly tumour and trauma, does not always lend itself to night-time work. The surgeon will be dependent on a good team with experienced nurses, a knowledgeable surgical assistant with high dependency unit back up post-operatively and arguably spinal cord monitoring facilities in many cases. There will be very few units across the United Kingdom that can offer this level of support, 24 × 7. From a pragmatic view, most tumour cases can be optimised by steroids and surgery performed during normal working hours. A similar story is true for acute spinal trauma, with the non-randomised STACSYS study not

really providing any compelling evidence for very early surgery [17].

On the other end of the surgical spectrum, the Spine Task Force's conclusions about the efficacy of image guided steroid injections for back pain and sciatica may not have much resonance with our community. The British Spine Registry will hopefully gain valuable prospective data to identify which patients might benefit from spinal injections for diagnostic and therapeutic purposes. It is ironic for such a widely performed procedure by surgeons, pain specialists and radiologists that the evidence base is relatively poor.

Finally for a new specialty, academic spinal surgery needs to be developed in the UK. Academic should mean teaching not just research. British academic surgery is already suffering from a lack of infrastructure and financial support. The high profile medical university centres are obsessed with their academic rating that is biased against surgery, in favour of the basic sciences and medicine. Professors of neurosurgery and orthopaedics, whilst quite common in continental Europe and the USA, are a dying breed here in the UK. If we have to avoid the "Last of the Mohicans" scenario in spine, we need to cultivate academia within our society. Our professional work is supported by the many trials listed above. From both an altruistic and self-indulgent position we need to push this through.

Conflict of interest None.

References

1. Peul WC et al (2007) Surgery versus prolonged conservative treatment for sciatica. *N Engl J Med* 356(22):2245–2256
2. Sasso RC et al (2007) Clinical outcomes of BRYAN cervical disc arthroplasty: a prospective, randomized, controlled, multicenter trial with 24-month follow-up. *J Spinal Disord Tech* 20(7):481–491
3. Zucherman JF et al (2004) A prospective randomized multicenter study for the treatment of lumbar spinal stenosis with the X STOP interspinous implant: 1-year results. *Eur Spine J* 13(1):22–31
4. Blumenthal S et al (2005) A prospective, randomized, multicenter Food and Drug Administration investigational device exemptions study of lumbar total disc replacement with the CHARITE artificial disc versus lumbar fusion: part I: evaluation of clinical outcomes. *Spine (Phila Pa 1976)* 30(14):1565–1575 (discussion E387–91)
5. Weinstein JN et al (2006) Surgical vs nonoperative treatment for lumbar disk herniation: the Spine Patient Outcomes Research Trial (SPORT) observational cohort. *JAMA* 296(20):2451–2459
6. Kallmes DF et al (2009) A randomized trial of vertebroplasty for osteoporotic spinal fractures. *N Engl J Med* 361(6):569–579
7. Buchbinder R, Kallmes DF (2010) Vertebroplasty: when randomized placebo-controlled trial results clash with common belief. *Spine J* 10(3):241–243
8. Boszczyk B (2010) Volume matters: a review of procedural details of two randomised controlled vertebroplasty trials of 2009. *Eur Spine J* 19(11):1837–1840

9. Ware JE Jr, Sherbourne CD (1992) The MOS 36-item short-form health survey (SF-36). I. Conceptual framework and item selection. *Med Care* 30(6):473–483
10. Fairbank JC (2000) The use of revised Oswestry Disability Questionnaire. *Spine (Phila Pa 1976)* 25(21):2846–2847
11. Singh A, Crockard HA (2001) Comparison of seven different scales used to quantify severity of cervical spondylotic myelopathy and post-operative improvement. *J Outcome Meas* 5(1):798–818
12. Casey AT, Bland JM, Crockard HA (1996) Development of a functional scoring system for rheumatoid arthritis patients with cervical myelopathy. *Ann Rheum Dis* 55(12):901–906
13. Vernon H, Mior S (1991) The Neck Disability Index: a study of reliability and validity. *J Manipulative Physiol Ther* 14(7):409–415
14. The EuroQol Group (1990) EuroQol—a new facility for the measurement of health-related quality of life. *Health Policy* 16(3):199–208
15. Stucki G et al (1996) Measurement properties of a self-administered outcome measure in lumbar spinal stenosis. *Spine (Phila Pa 1976)* 21(7):796–803
16. Carvell J (2013) The Spinal Services Taskforce report “commissioning spinal services—getting the service back on track”
17. Fehlings MG et al (2012) Early versus delayed decompression for traumatic cervical spinal cord injury: results of the Surgical Timing in Acute Spinal Cord Injury Study (STASCIS). *PLoS ONE* 7(2):e32037