

Pioneers, sceptics and those who seek the truth

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VATS lobectomy is now 25 years old having started in 1992 and was taken up by many pioneers (1-4). The operation continued to evolve over this time and as the authors of this paper report (5), over 1,500 cohort papers that report the benefits of VATS lobectomy have now been published. However, after a quarter of a century, the rates of VATS lobectomy vary widely internationally but are often well below 50% in most countries.

To those outside the specialty this may indicate a major issue within the specialty of Thoracic Surgery internationally, but I would like to disagree and point to this as an indicator of the vibrancy of our specialty.

So firstly what does this tell us about our specialty and what types of surgeon do we have in thoracic surgery? I would suggest that 90% of surgeons perform thoracic surgery from a mainstream position in the manner that they have been taught and to the best of their ability influenced by many years of safe training and careful reading of the literature. For some this means safe VATS lobectomy and for others safe lobectomy by thoracotomy.

We then have 5% of surgeons who would regard themselves as pioneers and innovators. And finally we have 5% of sceptics who will call those pioneers into question and hold them to account.

So let us consider these personality types in more detail. It is vital for all specialties that the majority of surgeons treat patients as part of the mainstream of opinion. These are safe surgeons and allow consistency and excellence and these surgeons are often the best trainers for the next generation.

Let us now consider the innovators. These surgeons are often the surgeons most admired in our specialty. They perform novel procedures and try new equipment, striving to take the specialty into new areas. Often they are asked

to present their techniques at international meetings, supported by videos of operations and once they have settled on a novel technique they will create a cohort of their technique and publish their results often indicating outstanding results due to their enthusiasm and their ability to bring others in their team along with them.

The skeptic surgeons are also a vital part of our specialty. They will point out the fact that cohort studies are generated by the most motivated surgeons with a strong interest in making their novel operation work and making it a success and their results will often be superior when compared to the attainment of the mainstream or the technique that they themselves left behind.

So my final question is 'what type of surgeon do I most admire?' The answer is none of the above.

The surgeon that I most admire is the surgeon that learns a novel technique and who perhaps starts to perfect that novel technique and gains a reputation for their work. But then I most respect a surgeon who then questions his own novel operation and who decides to place his favored method under the microscope of a randomized controlled trial. Bendixen *et al.* (5) are such surgeons. In 2008 they decided to spend the next 6 years telling their patients that they did not feel that there was a significant difference between VATS lobectomy and lobectomy using an anterolateral thoracotomy. This is a complex issue for them to discuss with each patient and it is more complicated than simply whether there is less pain with VATS. In fact the most important issue is to establish that the VATS operation is exactly equivalent in terms of the quality of cancer resection and only after this to seek to establish whether there are benefits in terms of pain. The authors of this paper are to be congratulated for completing this very difficult randomized controlled trial. In addition to the

difficulty of completing such a study, it is almost invariable that all results of RCTs demonstrate differences between the techniques that are less impressive than those published by the innovators and pioneers. The reason for this is clear, and is due to the fact that the differences in post operative care is unified and therefore any idea that the patient has had a 'pioneering new operation' and therefore must progress more rapidly is eliminated.

But it is incumbent on us as a specialty to hold these authors in the very highest regard in our specialty. More than the innovators and pioneers who try novel techniques and are then lauded for their cases series, more than the skeptics who often provide an interesting insight into the weaknesses of the arguments of others, those who finally provide us with randomized study data and who have selflessly worked the hardest of us all, demonstrating equipoise in the argument until they see the results, are those we must regard as doing the greatest service to our specialty.

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Footnote

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