

Critical Issues in Aortic Endografting 2015

International Experts Symposium

BT Convention Centre, Liverpool, UK on Fri 15 and Sat 16 May 2015

Course Directors:

J A Brennan
S R Vallabhaneni

Scientific Committee:

RK Fisher
S Haulon
M Malina
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Invited Faculty

Cherrie Abraham Montreal, Canada.

Donald Adam, Birmingham, UK.

Nigel Armstrong, York, UK.

Martin Austermann Münster, Germany.

Colin Bicknell, London, UK.

Rachel Bell, London, UK.

Jean-Pierre Becquemin, Paris, France.

Jan Blankensteijn, Amsterdam, The Netherlands.

Dittmar Böckler, Heidelberg, Germany.

Jonathan Boyle, Cambridge, UK.

John Brennan, Liverpool, UK.

Piergiorgio Cao, Rome, Italy.

Tom Carrell, United Kingdom.

Nadine Carroll, Liverpool, UK.

Eric Ducasse, Bordeaux, France.

Jean-Paul de Vries, Nieuwegein, The Netherlands.

Rob Fisher, Liverpool, UK.

Simon Hobbs, Wolverhampton, UK.

Andrew Holden, Auckland, New Zealand.

Stephan Haulon, Lille, France.

Mike Jenkins, London, UK.

Alan Kathikesalingam, London, UK.

Tilo Kölbel, Hamburg, Germany.

Ralf Kolvenbach, Düsseldorf, Germany.

Manoj Kuduvalli, Liverpool, UK.

Chris Lowe, Manchester, UK.

Martin Malina, Malmo, Sweden.

Charles McCollum, Manchester, UK.

Richard McWilliams, Liverpool, UK.

Frans Moll, Utrecht, The Netherlands.

Simon Neequaye, Liverpool, UK.

Aung Oo, Liverpool, UK.

Timothy Resch, Malmö, Sweden.

Rob Sayers, Leicester, UK.

Geert Willem Schurink, Maastricht, The Netherlands

Vince Smyth, Manchester, UK.

Matt Thompson, London, UK.

Francesco Torella, Liverpool, UK.

Ramesh Tripathi, Bangaluru, India.

Rao Vallabhaneni, Liverpool, UK.

Eric Verhoeven, Nuremberg, Germany.

Rob Williams, Newcastle-upon-Tyne, UK.

Chee Yeong, Warrington, UK.

Oliver Zuzan, Liverpool, UK.

Programme

Day 1 Friday 15 May 2014

- 08:00 Registration opens
Coffee
- 08:20 – 08:30 Opening Remarks **John Brennan & Rao Vallabhaneni**
- 08:30 – 09:30 **Session 1. Surveillance**
Chairmen: Eric Verhoeven, Jonathan Boyle
- 1) Personalised surveillance after standard EVAR – how far are we from it? Alan Karthikesalingam
- Post-EVAR surveillance has major workload and expense implications. Matt Thompson's group have been developing validated models to distinguish patients who require intensive surveillance from those in whom less frequent surveillance would be adequate. Can we now start implementing surveillance tailored to individual patients that is safe, effective, better accepted and more economical?
- 2) Plain X-rays in EVAR Surveillance: are you using them the way they should be? Richard McWilliams
- Plain X-Rays are extremely useful in EVAR surveillance and their value is often unrecognised. As ultrasound is increasingly being used instead of CT for surveillance, what are the complications that you will miss if you do not perform Plain X-Rays? How should they be done and interpreted?
- 3) Contrast enhanced ultrasound (CEUS) with harmonic imaging – is it better than CT?
- CEUS with modern scanners and contrast agents is a vast improvement on the original CEUS, but little has been published on this in the area of EVAR surveillance. With excellent sensitivity and the ability to provide real-time information, CEUS with harmonic imaging has the potential to surpass CT scanning in endoleak detection and characterization.
- 4) Expanding aneurysm with no endoleak. How best to investigate? Dittmar Böckler
- Aneurysms that go on expanding after EVAR are a source of concern as the continued anatomical distortion can lead to loss of seal and even rupture. The worse case scenario is if you cannot tell why the aneurysm is expanding. Listen to an expert about how best to investigate this problem.
- 5) What does the evidence say fEVAR and bEVAR surveillance should be? Simon Hobbs

Surveillance after fEVAR should not only reveal the state of aneurysm exclusion and any threats to it, but also detect any problems with target vessel perfusion. What is the state of evidence for the best methods and the frequency of surveillance required?

Panel discussion

09:30 – 10:30

Session 2. Secondary Intervention

Chairmen: Martin Malina, TBC

1) Profile of secondary intervention in current practice.

Improvements in stent-graft technology and physician experience have reduced the incidence of post-EVAR complications, but has not eliminated them. What are the secondary interventions being done these days and what for?

2) Intervention for type II endoleaks – what purpose does it serve? Rob Williams

Type II endoleaks are usually left alone unless they are implicated in an additional problem such as aneurysm expansion. A plethora of techniques for tackling type II endoleaks have been described, but what are their success rates in eliminating the endoleak ? Is this usually all that is necessary?

3) Endoluminal relining of failing EVAR: when, why and how? Rao Vallabhaneni

A technique to comprehensively shore-up a failing stent-graft is to reline it completely and endoluminally. When might this technique be useful, why, technical aspects of doing it and when not to attempt it.

4) Failed EVAR – What are the surgical options? Mike Jenkins

A number of open surgical techniques are used to manage a failed EVAR. This includes open closure of endoleaks, banding of the aneurysm neck, repairing device fabric holes, in addition to complete or partial removal of the device and replacement with a surgical graft. What are the technical aspects?

5) Reintervention specific to fenestrations and branches. Stephan Haulon.

Advanced stent-graft technology has with it specific re-interventions with the aim of preserving or restoring target vessel related perfusion or seal issues. Share the experience of an experienced surgeon.

Panel discussion

10:30 – 10:50

Coffee

11:00 – 12:00

Session 3. Review of Evidence

Chairmen: Jean-Pierre Becquemin, Francesco Torella

- 1) UK-EVAR I, OVER and Dream Trials: are the findings of these trials still applicable? Jan Blankensteijn.

It is nearly ten years since the first RCTs addressing open repair versus EVAR in patients suitable for both have been reported. EVAR technology as well as risk management in OR have changed since then. Are the conclusions of these trials still valid in today's practice and why?

- 2) UK-EVAR II and PIVOTAL Trials: Should you still offer EVAR to patients unfit for open repair? Jonathan Boyle

RCTs of patients unfit for OR showed little benefit in offering them EVAR. Should you be offering EVAR at all to such patients in your practice currently and why?

- 3) EVAR for ruptured AAA: We know what the trials showed – don't we? Rob Sayers

There has been a surprising volume of research in this difficult area including RCTs. Why is there so much debate about the conclusions of the RCTs when they in fact appear to prove most of the prior suppositions were right?

- 4) INSTEAD XL: What is all the fuss about when it showed what you expect after INSTEAD? Piergiorgio Cao

The INSTEAD trial showed that morphological changes in the aorta were favourable in the EVAR group when compared to those managed conservatively. There was optimism that this may well lead to better survival. Now the later follow-up (XL) shows that it is true, but critics are not convinced. Why?

- 5) What we know and what we don't in relation to fEVAR versus open repair for juxtarenal aneurysms? Nigel Armstrong.

A substantial proportion of fEVARs implanted made their way into publications of one sort or the other, making it one of the most closely scrutinized techniques. It is worth looking at the evidence then. Nigel is the lead author of the Technology Review commissioned by the British Health Technology Assessment (HTA) Programme and has scrutinized more than 5000 publications in this area!

Panel discussion

12:00 – 13:00

Session 4. Technology Update

Chairmen: Rachel Bell, Jan Blankensteijn

Six presentations + discussion

13:00 – 14:00

Lunch and exhibition

14:00 – 15:00

Session 5. Technological solutions to some old problems

Chairmen: Piergiorgio Cao, Mike Jenkins

1) Can we eradicate the scourge of endoleaks ? Rachel Bell

There are endoleaks and there are endoleaks ! Whatever your take on different endoleaks is, life would be much better if there are no endoleaks. What are the strategies tried to eradicate them and can we eradicate them?

2) Incidence and consequences of stent-graft fatigue.

The composite nature of stent-grafts creates a risk of failure due to fatigue and material interaction. How frequent is this problem now and what are the consequences?

3) Can we disregard neck and iliac anatomy if we seal the aneurysm? Andrew Holden

Endovascular Aneurysm Sealing is a new concept, where seal is obtained by filling the aneurysm lumen with polymer bags. As this is clearly different from the traditional EVAR, can we safely ignore the anatomy of the aneurysm neck and iliac segments?

4) Is off-the shelf technology for branched and fenestrated devices likely to supersede custom-made devices? Timothy Resch

The problem of maintaining visceral perfusion while extending seal zones beyond them has been effectively solved with the use of custom-made devices. There will be advantages if these advanced devices are available off-the-shelf. What is the current state-of-the art?

6) Solving the problem of the aortic arch. Frans Moll

Aortic arch creates a difficult challenge with its curved anatomy, proximity to the heart and location of great vessels. How is this being tackled for stent-grafting?

15:00 – 16:00

Session 6. Patient selection and Screening

Chairmen: Cherrie Abraham, John Brennan

1) In defence of UK AAA screening programme: it is not a waste of time and money. Rob Fisher

The detection rates of AAA in the UK's national screening programme are nowhere near the rates seen in the trial that gave us the evidence basis for screening. Sceptics might question the utility of this expensive programme, but Rob Fisher will tell us why it is still worth it.

2) What purpose if any, does CPEX Testing serve in relation to aortic aneurysms? Oliver Zuzan

Most physicians are confident at interpreting the results of a test they have ordered,

that is until they are given the print out of a CPEX test ! This test is widely used and its value widely debated. What is it a test of? What are the implications of different results? Are they the same for OR and EVAR?

3) Aneurysm Repair Decision Aid (ARDA): Is this the final solution for decision making? Charles McCollum

The clinical utility of AAA repair depends upon a balance between 1) risk of aneurysm rupture 2) risk of perioperative death, and 3) expected longevity of the patient if not for the aneurysm. ARDA, developed with British NIHR funding aids in determining individual patient indications for AAA repair in order to optimise long-term survival.

4) Managing frailty in aneurysm patients. Nadine Carroll

With emphasis not only upon reducing perioperative mortality, but also upon quality of life extended as result of aneurysm repair, managing frailty in this group of elderly patients is essential. How to do it?

5) Day case EVAR. Simon Neeqyaye

Is 'day case' the only reason to do EVAR percutaneously although you get perfect results with conventional exposure of femoral arteries? Anatomical features you need to be cautious about to do a PEVAR. Techniques and options available. Managing other aspects to make day case EVAR a safe proposition.

16:00 – 16:20 Coffee

16:30 – 17:30 **Session 7. Advanced EVAR**
Chairmen: Stephan Houlan, TBC

1) Chimneys, periscopes and snorkels (CHIMPS): Overview of potential stent-graft combinations – what works best? Martin Austermann

Target vessel perfusion can be maintained by innovative use of visceral vessel stents in combination with standard EVAR devices, which may well be off-label use. With a range of covered, uncovered, self-expanding and balloon expandable stents available to go with another range of EVAR devices, what are the best possible combinations for this and why?

2) Debate: Avoid CHIMPS at all costs! Tilo Kölbel

3) Debate: CHIMPS are your best friend! Eric Ducasse

Opinions are divided if the use of CHIMPS is wise and effective or not. Two experts debate the pros and cons of these techniques.

4) Overlook iliac zones at your peril! John Brennan.

While a lot of emphasis is placed on aneurysm neck, in fact, creating or maintaining a seal in the iliac zones can be frequently troublesome. Why should we pay attention to

iliac zones and how?

- 5) What would be the ideal consignment stock to manage ruptured AAAs?
Jean-Paul de Vries

From a population point of view, what proportion of rAAA would be best treated by different configurations including bifurcated systems, AUI, Nellix etc

18:00 Reception in exhibition area

19:30 Interactive case presentation and Dinner. Royal Liver Building, Liverpool.

DINNER

Day 2 Saturday 16 May 2014

08:00 – 08:30 Registration and coffee

08:30 – 09:30 **Session 8. Imaging for EVAR**
Chairmen: Rob Sayers, Rob Williams

- 1) Low-dose CT for EVAR planning and surveillance. Chee Yeong

Developments in CT image acquisition allow capturing arterial images with approximately a quarter of the usual radiation dose and lower contrast load. How does this work? How much lower radiation and contrast volume? Adapting your work to this new method of imaging and early clinical results.

- 2) Advanced functions of intraoperative imaging – do they represent real value, or just fancy terminology?

A variety of intraoperative guidance facilities and advanced features have been introduced into angiographic equipment. What are they? What are they useful for? Do they bring real value or just fancy tricks?

- 3) 3-D Ultrasound – Clinical application. Chris Lowe

A significant breakthrough is the advent of 3-D ultrasound, particularly when combined with contrast enhancement. How does this new technology work? Clinical results and application to aneurysms.

- 4) How essential is the provision of a Hybrid Operating Theatre for an EVAR programme? Vince Smyth

European standards for hybrid operating theatre. Regulatory and clinical implications of theatre environment for EVAR programme.

5) Carbon dioxide EVAR. Practical use. Martin Malina

There are a small but significant number of patients in whom avoidance of any iodinated contrast material will be valuable. Technique of EVAR using CO2 contrast – how do I do it? Why is it not used more widely?

09:30 – 10:30 **Session 9. Thoracic EVAR and Dissection**

Chairmen: Andrew Holden, Frans Moll

1) TEVAR for Ruptured TAAA. J-P Bequemin

Applicability and results of TEVAR for ruptured TAAA.

2) Clinical decision making in acute Type B dissection. Aung OO

How to manage the acute Type B dissection? What are the aims of medical management and how do you recognize failure of medical management?

3) Technical aspects of TEVAR for Type B dissection. Eric Verhoeven

What are the aims of intervention and technical considerations to plan TEVAR. Extent of coverage, intraoperative techniques, use of distal bare segments, evaluating adequacy of intervention.

4) Physiology of spinal cord protection and monitoring. Geert Willem Schurink

The physiology of motor evoked potentials and their monitoring. How are they used intra and post operatively to prevent paraplegia?

5) Paraplegia-prevention branch (PPB) - Does it have a role? Cherrie Abraham.

Incorporation of a dedicated branch in a device to maintain intercostal/lumbar artery perfusion via the aneurysm cavity (a deliberate endoleak) is referred to as a PPB. The strategy is to close this once you are no longer concerned with the risk of spinal cord ischemia, and often as a secondary intervention. Technical and practical aspects of using a PPB.

10:30 – 10:50 Coffee

11:00 – 12:30 **Session 10. Complex EVAR**

Chairmen: Manoj Kuduvalli, Richard McWilliams

- 1) Use of stent-grafts in the ascending aorta – the ultimate challenge.
Ralf Kolvenbach

Clinical situations when you may wish to consider stent-grafting in the ascending aorta. Anatomical and physiological factors that make it a difficult proposition. Expert with substantial experience of this procedure shares his views.

- 2) Combined hybrid repair of the arch and CABG – single centre series.
Ramesh Tripathi

Substantial endovascular components are being increasingly incorporated into procedures that appear too extensive to undertake otherwise. First-ever series of concomitant CABG and arch hybrids.

- 3) Chronic dissection – the challenges of creating a proximal landing zone for the treatment of CTBAD. Colin Bicknell

- 4) Chronic dissection: dealing with the visceral segment and a fibrosed septum in CTBAD. Donald Adam

- 5) Dealing with the distal end of the repair in CTBAD.

Endovascular repair is a very useful technique to have in your armamentarium if you are confronted with chronic Type B dissections that need treatment. This is an area where morphology and challenges are varied and difficult. These three lectures deal with the different areas - proximal landing zone, visceral segment and distal landing zone.

13:00 - Lunch and close of meeting.

Acknowledgements – see attachments for logos

- 1) Bolton
- 2) Cook
- 3) Endologix
- 4) Gore
- 5) Medtronic
- 6) Trivascular

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Registration fee:

Physician £350 onsite, £300 before 15 Apr, Trainees £200

Email the following details to ruth.moss@ntlworld.com to pre-book your registration and make use of the early-bird rate. Fee will be charged at the conference.

Name, Organisation, Mailing Address, Accommodation requirements (room rates apply).

Social programme:

Friday 15 May 18:00 Reception

19:30 Dinner at the Royal Liver Building, Liverpool.

Sightseeing tours available for accompanying persons.