



THE SOCIETY FOR  
VASCULAR TECHNOLOGY OF  
GREAT BRITAIN AND IRELAND

**NEWSLETTER**

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### In this Issue:

1. **Ann Donald Scientist of the Year Award 2020**
2. **Calling all SVT members...**
3. **DAVID HENRY KING - 1941 – 2020**
4. **Position Available : SVT CASE Representative**
5. **Professor Michael P Jenkins, VS President - discusses the NICE AAA guidelines & EVAR**
6. **Reinstatement of SVT AVS Practical Examinations**
7. **Resumption of clinical training in ultrasound during the COVID-19 Pandemic.**
8. **Crossword**
9. **Letter from the Editor**

## Ann Donald Scientist of the Year Award 2020 Call for Nominations

Ann Donald was a highly respected member of the vascular diagnostic and research community and an important pioneer of the SVT, serving as our President in 2004-2005.

Established in 2012 this annual prize of £500 was created in memory of Ann to recognise an outstanding scientist who has performed the best original research or been the most innovative in the promotion of vascular ultrasound during the year.

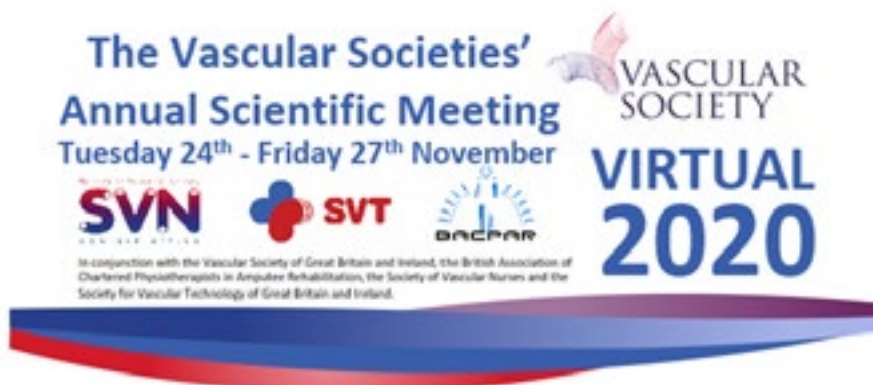
Nominations for this award can be made in writing using the application form on the SVT website: [www.svtgbi.org.uk/resources/anndonald](http://www.svtgbi.org.uk/resources/anndonald)

You may nominate yourself or a colleague, in recognition of achievements over the past year. These successes may have been in research, the promotion of vascular ultrasound or demonstrating outstanding leadership, overcoming the challenges and providing innovative solutions, during the Covid-19 global pandemic crisis. Applications must be completed in full, with supporting evidence and two others to support your nomination.

The final deadline for nominations is 31st October 2020. The award will be judged by an SVT panel from the committees and the prize will be awarded at the 2020 ASM if an appropriate nomination is received.

## Calling all SVT members...

Register now for the 2020 VSASM. To be held on Tuesday 24th to Friday 27th November. Due to COVID-19, our annual meeting will be virtual so that all can participate. CPD will be available as usual. Register before the 17th of November for the early bird price of just £25 for SVTGBI members.



## DAVID HENRY KING

### 1941 – 2020

David King was a founder member of the Society of Vascular Technology of Great Britain and Ireland. He worked tirelessly to introduce and improve the diagnosis of peripheral vascular disease for over fifty years. Various described as a 'Gentleman Scientist' and a 'Maverick', David was always enthusiastic and considerate to both colleagues and to the thousands of patients whom he measured in clinic. He particularly enjoyed the stories retold by older patients of their wartime and scientific experiences

His enquiring mind and technical skills were put to good use with the creation of the Ultrasonic Angiology Research Group at Guys Hospital Medical School under the leadership of Dr (later Professor) Raymond Gosling ([https://en.wikipedia.org/wiki/Raymond\\_Gosling](https://en.wikipedia.org/wiki/Raymond_Gosling)). This started when Raymond and David returned from The University of West Indies, Jamaica, in 1967. Whilst there, they had been working on the causes of Atherosclerosis, which included using early CW Doppler ultrasound detectors. However, they also became accustomed to what Raymond called 'Jamaica Time', a highly personalised interpretation of timekeeping which both continued to use thereafter.

This research group was highly successful, with David initially developing instruments to assist research, including a hand-held turbulence detector, and a Transit Time device with Brian Coghlan. This early work also involved both human, animal, and in-vitro investigation into haemodynamics, from which many academic papers flowed including one in Nature, and in the creation of the 'Pulsatility Index'.

David also contributed significantly to the development of a whole range of novel instrumentation for clinical measurement and was instrumental in the setting up of a vascular laboratory within Guy's Hospital to offer the non-invasive detection of peripheral vascular disease in 1977. This service was much appreciated and with ever developing instrumentation attracted NHS support, becoming 'Ultrasonic Angiology'. David transferred to NHS employ in 1991 when Professor Gosling retired.

He was generous and enjoyed a chat and a good night out. A memory has been related that he took a couple of trainees at King's College Hospital out for an after meeting meal, paid for their meals and gave them a lift in his Mazda RX-8 rotary engine sports car. He said that he had to top up the oil with every new tank of petrol. It is an individualist's car.

He was always enthusiastic about new ideas in blood flow measurement and imaging. He could be relied upon, completely unselfconsciously, to come up with challenging questions which delved into the details of a problem or scientific presentation.

David independently developed a novel CW Doppler scanning device 'QuickScan'. This drew a colour coded for velocity / Doppler shift arterial map onto a picture of the patient's legs, and reduced the time needed for the investigation. This attracted commercial interest from Huntleigh Medical Ltd.

He also branched out into clinical measurement at other hospitals, setting up a vascular lab with David Goss at the London Bridge Hospital in 1993. This was a physiological measurement 'old style' vascular lab. He always enjoyed the fine selection of sandwiches the hospital provided at the set up meetings and they normally went for a pint afterwards. By 1997 he felt able to leave Guy's hospital employ and become more independent, creating new vascular Labs at Lewisham Hospital and at Broomfield Hospital, Chelmsford, where he oversaw and provided clinical services, aided by his partner Deborah Dorrance whom he had met at Guy's some years before.

During this time he created an experimental 3D ultrasound scanning device, while by 2003 he had developed with others a simple two minute test for presence of arterial disease. By 2009 he had developed a method and obtained a patent with Dr Mohammed Al Qaisi for the estimation of mean blood pressure in an artery from the blood flow waveform.

From 2009 he acted as a locum Clinical Vascular Scientist to a wider range of hospitals, an activity he continued until health issues brought this to a close early in 2020.

His determination for innovation never waned, and from 2009 he drove forward the development of a device capable of exploiting the patent and introducing the concept of the 'cuffless ABI' for triaging lower limb vascular disease. He created a start-up Company, Bluedop Medical Ltd, and with others has strived to make a practical and cost effective device – the 'Bluedop Vascular Expert'. The first commercially manufactured prototypes emerged in late 2017, though considerable time was still required to obtain CE approval, and sadly David did not live to see this finally achieved just weeks after his death.

David died peacefully in hospital in June 2020. He leaves a wife, Deborah Dorrance King, and three sons Raph, Charles and Harry.



## Position Available : SVT CASE Representative

CASE is an organisation that exists to accredit sonographic courses delivered within the UK. CASE's philosophy is to promote best ultrasound practise through the accreditation of those training programmes that develop safe and competent ultrasound practitioners. The majority of its activities relate to supporting those Institutions that offer, or wish to offer, courses leading to an award in Medical or Clinical Ultrasound. In addition to offering accreditation of new, and re-accreditation of established ultrasound education programmes, CASE undertakes annual monitoring of the courses it has accredited. The information obtained is fed back to the Institutions both on an individual basis and via the annual CASE report.

The Consortium is currently comprised of six Member Organisations who are responsible for the policy, strategy, governance and financial control of CASE.

Each Member Organisation nominates up to three of their own members to represent their interests on the CASE Committee. The Committee is responsible for implementing CASE policy and strategy as determined by the Consortium and the day to day operations including approving accreditations.

There is currently a position available as one of the SVT CASE representatives. If you are interested in this position please email [president@svtgb.org.uk](mailto:president@svtgb.org.uk)



## Professor Michael P Jenkins, VS President - discusses the NICE AAA guidelines & EVAR

**Q: Following publication of NICE guidance for Repair of AAA this March 2020, how do you think this will change practice in the UK and effect patient outcomes? Will you change your practice?**

A: Yes. There has already been a change in practice (as evidenced by NVR), since the release of the draft guidelines. I think there may be a further shift to both some more open surgery and some (at the more frail/elderly end of the spectrum) being managed conservatively.

**Q: Will there be an impact on vascular surgical trainees?**

A: Yes. This is not as bad in the UK as in the US where some areas are >90% EVAR. It is predicted that in some Fellowship programmes that trainees will be appointed having done <5 open repair aneurysms. Not quite so bad in the UK, but the previous thinking Of "all will be EVARs in the future so no need to learn open repair" is now being re-evaluated.

**Q: Can you comment on the recommendation for monitoring post EVAR?**

1.7 Monitoring for complications after endovascular aneurysm repair

1.7.1 Enrol people who have had endovascular aneurysm repair (EVAR) into a surveillance imaging programme.

1.7.2 Base the frequency of surveillance imaging on the person's risk of EVAR-related complications.

1.7.3 Consider contrast-enhanced CT angiography or colour duplex ultrasound for assessing abdominal aortic aneurysm (AAA) diameter and EVAR device limb kinking.

1.7.2 Base frequency of surveillance imaging on the persons risk of EVAR related complications

1.7.5 do not exclude endo leak based on negative colour Doppler

A: Surveillance is a complex area. Original draft guidance suggested it should all be by CT, but subsequent data has suggested an increased cancer risk post EVAR and there are worries about radiation doses. Pragmatically what really counts is sac diameter, and if this is shrinking, likely to be all good. This could be assessed by simple ultrasound (like NAAASP), but for those on the increase more exacting imaging is needed. CT not necessarily the gold standard though as the phase dictates how easily an end-leak is seen. In some cases, a good duplex may be better and we use both modalities +/- angio as needed. The guidelines have therefore become a bit more pragmatic to take into account local skill sets.

**Q: We have good data for the surveillance of AAAs from NAAASP, but no consensus for surveillance scanning post EVAR. How do you base your surveillance scanning?**

A: Yes - frequency of scanning depends a bit on anatomy and proximity to IFU. Accepted that an individualised approach for a specific patient is probably best. There is data on surveillance frequency, but no one agrees! An increase of 5mm is significant, but also no growth is seen as "stable" and OK. Personally, I think we should only be satisfied with sac shrinkage and anything less than this is not very satisfactory. We are currently trying to run the DETECT study in London looking at the utility of simple ultrasound diameter (portable probe attached to an iPhone with imaging app).

**Q: How do you think the cited increased mortality rate (5% in patients with cardiovascular disease and 7.3% in those with diabetes) among patients with cardiovascular disease will affect services for vascular patients over the next 12-18months?**

R.Ferrari, G. Di Pasquale et C. Rapezzi 'Commentary: What is the relationship between Covid-19 and cardiovascular disease? International Journal of Cardiology

A: All our AAA and PVD patients are in a higher risk group. We are involved in an international study (COVER via Vern) looking at this question. Data from April/May suggested that vascular patients becoming positive in the post-operative period had a 40% mortality so really important. We have also seen people presenting very late as they were worried about attending hospital so people in their 30s and 40s coming in with gangrenous feet needing amputations.

**Q: Will vascular patients be able to access treatment over the coming months?**

A: GIRFT (with VS input) has just released a document looking at the implications of the next phase. Most of arterial surgery is either urgent and emergent so not so bad. The only NHS category 4 patients are VVs so they will probably not get NHS treatment anytime soon.

**Reinstatement of SVT AVS Practical Examinations**

From March 2020, the SVT practical examinations were suspended due to COVID19. As many vascular departments start to implement the 'new normal', the SVT have now re-instated the AVS practical examinations.

The safety of staff, members and patients are our main priority and access to the SVT AVS practical exam will vary across the UK depending on local situations with COVID19.

**Practical examinations are now open to all new candidates to apply.**

The following conditions will have to be satisfied before the practical examination can take place:

1. The host trust must sign a disclaimer assuming responsibility for the safety of their staff, patients and visiting examiners.
2. The host department will have to ensure that patients selected as part of the AVS practical examination give full consent to take part in a clinical assessment.
3. The external examiner will have to sign a disclaimer to confirm that they are satisfied that it is safe for them to travel to a host site to act as an external examiner, agreeing to adhere to all current COVID19 restrictions at the time of the practical exam.

If you have any questions please contact the SVT practical exam officers at [practicalexam@svtgbi.org.uk](mailto:practicalexam@svtgbi.org.uk).

## Resumption of clinical training in ultrasound during the COVID-19 Pandemic.

BMUS has released guidance on Resumption of clinical training in ultrasound during the COVID-19 Pandemic.

Clinical training in medical ultrasound remains at the cornerstone of effective and safe delivery of diagnostic ultrasound services. Phase 1 of the COVID-19 pandemic rightly resulted in strict controls over access to clinical training in ultrasound [1], with the need to minimise the number of practitioners in contact with individual patients together with minimisation of patient contact time.

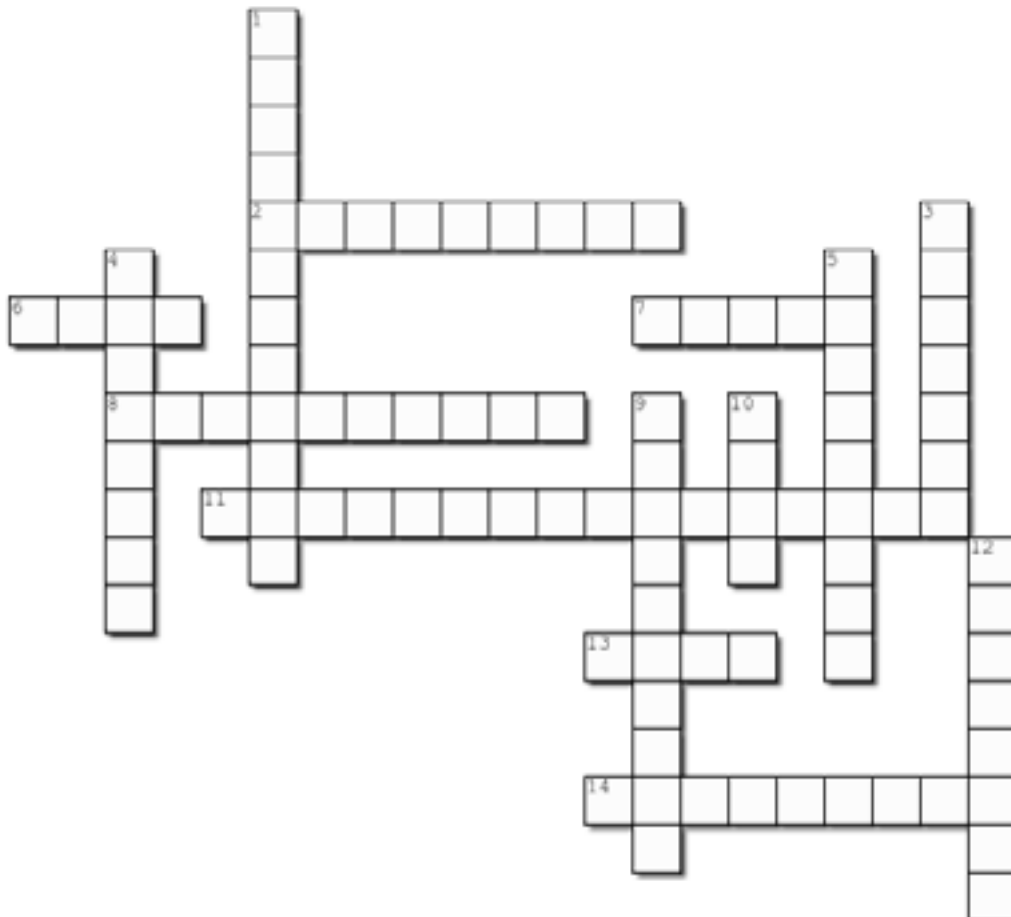
As the UK moves into Phase 2 of the pandemic[2], the balance of risks during ultrasound training require refinement. The risks of COVID-19 to individual trainees, trainers and patients need to be balanced against the risks of not having sufficient suitably trained staff to maintain an ultrasound service in the medium to longer term.

Click here to read the full set of guidelines and other covid resources [www.bmus.org/policies-statements-guidelines/professional-guidance/covid-19-resources/](http://www.bmus.org/policies-statements-guidelines/professional-guidance/covid-19-resources/)





Complete the physics themed crossword puzzle below



Created using the Crossword Maker on TheTeachersCorner.net

**Across**

- 2. Power divided by area (9)
- 6. A curved material that focuses a sound or light beam (4)
- 7. Acronym for the safety principle which maintains it prudent to minimise risk by minimising energy exposure to patients (5)
- 8. The production and dynamics of bubbles in sound (10)
- 11. The conversion of pressure to electric voltage (16)
- 13. The unit of impedance (4)
- 14. A series of closely spaced reverberation echoes (5,4)

**Down**

- 1. The Doppler shift frequency above which aliasing occurs; one half the PRF (7,5)
- 3. mass divided by volume (7)
- 4. Echo-free (8)
- 5. The range of frequencies contained in an ultrasound pulse (9)
- 9. The fraction of time that pulsed ultrasound is on (4,6)
- 10. The ratio of amplifier output to input electric power, may be expressed in decibels (4)
- 12. \_\_\_\_\_ number; a unitless number used to predict the onset of turbulence (8)

# Letters



## From the Editor

Dear All,

This is the last newsletter I will be editing. I must admit I had some misgivings when I was asked to become newsletter editor but on the whole I have thoroughly enjoyed the experience.

It is very satisfying to see all the articles you have been sent and proof read put into print.

It is however sometimes very difficult to get a balance in the newsletter as most of the time you are scrambling at the last minute to get enough articles for publication, and as always it seems to be the same few people who contribute.

I think the newsletter is a great medium to foster a feeling of togetherness, to share common experiences, inform other people about what is going on in your area and of course to help us gather those compulsory CPD points, but if it is going to be successful it really does need a bit of effort from everyone.

In each newsletter you are asked for contributions, case studies, letters etc., but in the two years I have been newsletter editor I can count only about a handful of contributions which I have received unsolicited. (Could this be the reason why executive committee members don't want to take this role on?!!)

If the present format of the newsletter bores you, why not send in some suggestions for change? If you think the emphasis on certain aspects needs changing, give us some advice. If you like an article/articles in the newsletter, do tell us. There are lots of motivated people out there, why not support your newsletter by adding something to it? The newsletter editor can only work with what is supplied, so remember it's your contributions which make the newsletter what it is!

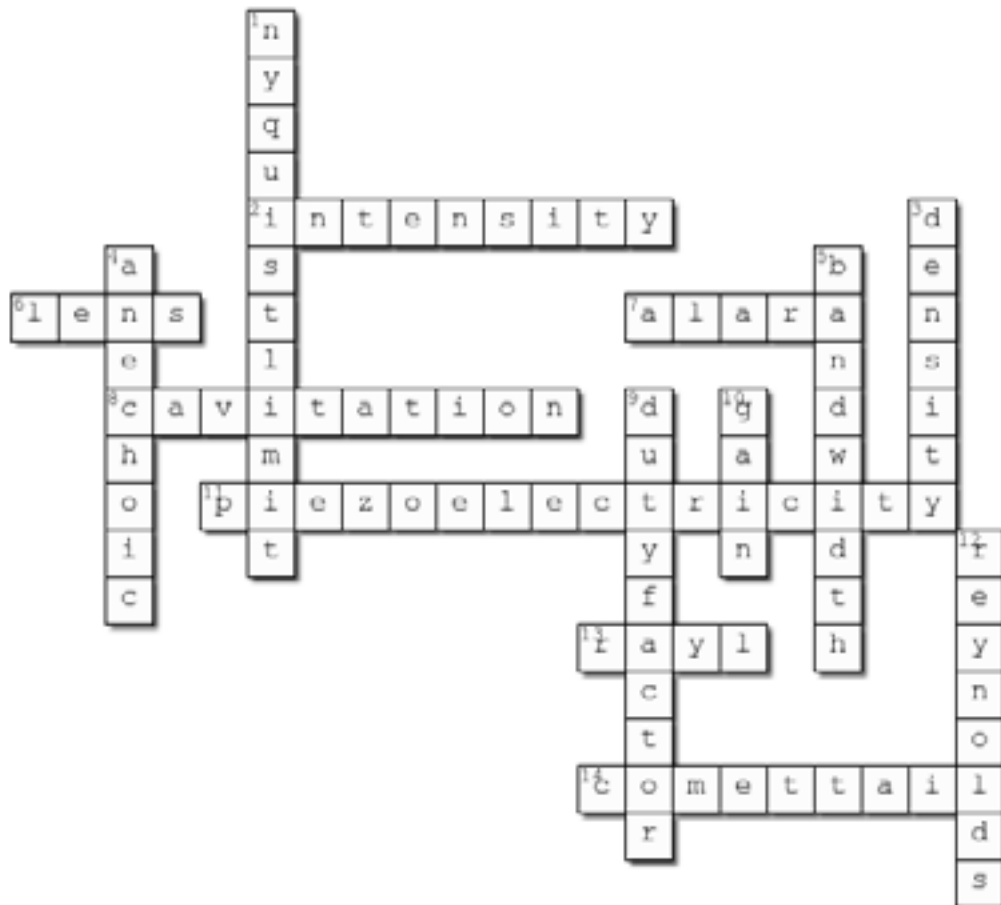
On that note I am looking forward to receiving lots of contributions for the next newsletter in February which I can pass on to my successor.

Many thanks again to all who have contributed to the newsletter and please, please do keep the articles coming.

Yours sincerely

Ann Donald

Complete the physics themed crossword puzzle below



Created using the Crossword Maker on TheTeachersCorner.net

**Across**

- 2. Power divided by area (9) (**intensity**)
- 6. A curved material that focuses a sound or light beam (4) (**lens**)
- 7. Acronym for the safety principle which maintains it prudent to minimise risk by minimising energy exposure to patients (5) (**alara**)
- 8. The production and dynamics of bubbles in sound (10) (**cavitation**)
- 11. The conversion of pressure to electric voltage (16) (**piezoelectricity**)
- 13. The unit of impedance (4) (**rayl**)
- 14. A series of closely spaced reverberation echoes (5,4) (**cometail**)

**Down**

- 1. The Doppler shift frequency above which aliasing occurs; one half the PRF (7,5) (**nyquistlimit**)
- 3. mass divided by volume (7) (**density**)
- 4. Echo-free (8) (**anechoic**)
- 5. The range of frequencies contained in an ultrasound pulse (9) (**bandwidth**)
- 9. The fraction of time that pulsed ultrasound is on (4,6) (**dutyfactor**)
- 10. The ratio of amplifier output to input electric power, may be expressed in decibels (4) (**gain**)
- 12. \_\_\_\_\_ number; a unitless number used to predict the onset of turbulence (8) (**reynolds**)