

# BMUS

SPRING NEWSLETTER 2019

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# A VIEW FROM MY BIKE



**D**usk is coming down, short ride home tonight, heading home from Swansea University campus along the edge of Swansea bay. The floodlights are on in St Helens, the iconic old rugby ground of Swansea RFC. Faded glory now but still hosts many golden memories of historic victories.

Ah rugby, yes we do take it seriously in these parts and Wales is definitely smiling at the moment, Grand Slam winners and victorious over England. It was only half tongue in cheek that Kelly Jones, Stereophonics sings the last line of the chorus "As long as we beat the English... we don't care". It does matter here, it really does.



Two things came up today amidst all the usual reporting and admin maelstrom, they won't disappear despite the sea breeze and setting sun doing their best – Rugby and Radiology. Angst and joy generated by both threads and yet similar themes, interests and motives are intertwined. A glance back to mumbles head across the bay, lifeboat stations fading slowly into the pink sky, ten minutes left till home, enough time to run through this.

Only in Wales, only in Wales – the week before the Wales versus England game the blazers in charge of rugby in Wales i.e. the WRU and the representatives from the four professional regional teams were locked in negotiations – the proposal was to cut one of the four regions, either disbanding altogether or merging two or moving one to North Wales. Current system not working on multiple fronts, mainly finance. Only in Wales, only in Wales – no one thought to tell the players that they may not have a job next season – so the week before the England game the players are locked in a room with the blazers discussing their future employment instead of preparing for the game. Chaos, but they win.

So, while the infighting tribal chiefs and blazers of rugby beat each other up, Wales play superbly, beat England and go on to do the Grand Slam.

Radiology, the guidelines from the British Sarcoma Group hit my laptop and I am asked to review it. All going well initially, title looks good; "British Sarcoma Group guidance for US screening of soft tissue masses", aim looks good too "clarify how to screen trunk and extremity soft tissue tumours using Ultrasound...a guide for sonographers and primary care". All good, then first line on Ultrasound technique: "scan should be performed or supervised by a clinician with FRCR/RCR accreditation to perform and report Ultrasound (preferably MSK Ultrasound)". So, we now have to be an MSK radiologist to be a fat screener – really? Ok, there is a "or supervised" in there but title says "a guide for sonographers"? Not sure about where you work but where I work in west Wales, 50% of the radiology posts are unfilled, sonographers provide the bulk of the US service and as to finding a radiologist who can help, let alone a MSK radiologist - good luck! The guideline is solely related to lipomata i.e. a lipoma

screening service. Lipomata, very common and thanks to NICE we are to screen fatty lumps under the instruction and guidance of a Sarcoma Group. But how common are soft tissue sarcomas – the UK guidelines produced in 2016 quoted a statistic that "on average a general practitioner may see only one sarcoma in their career". But how many lipomata? Thousands is the (polite) answer from my primary care colleagues. Use of resources, cost effective?

We should get real, what is behind this stance, self-preservation of a speciality, self-interest, justification of resource diversion, turf wars? Is there evidence for the stance; lets search (as I did) and look up the UK guidelines for management of soft tissue sarcomas, published 2016. More statements to ponder: "initial US often useful ... to confirm benign lipomata. In the hands of a non MSK sonographer errors may arise ... a more definitive US may be performed by a MSK radiologist". Errors may arise – correct, but note no MSK sonographers referenced.

We should all work within the scope of our practice and competence, radiologists and non-radiologist reporters alike. Those who were there at our 2016 ASM in York

# A VIEW FROM MY BIKE

will remember a brilliant talk by the then President of the RCR, Dr Giles Maskell, who gave the statistic – typical error rate amongst radiologists is around 4%. Who doesn't make error? We all do!

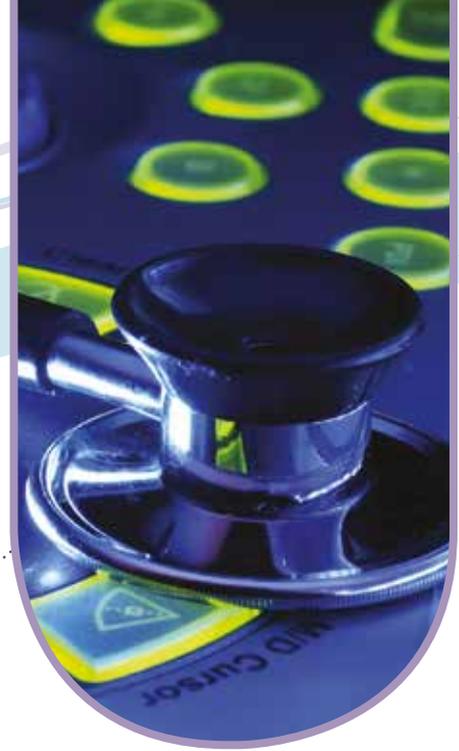
Same themes, same threads, self-preservation, self-interests at play amongst the blazers and chiefs, stating that they have the interests of the service or their national team at heart. Really? But isn't it both

incredible and lovely that despite parochial and tribal attitudes we can still provide a quality service where sonographers can work alongside supportive radiologists and Yes, Wales can beat England. And No, I didn't sing "as long as we beat the English we don't care", we do care and a Grand Slam is even better!

Happy days!

**Rhodri M Evans**  
BMUS President

“We should all work within the scope of our practice and competence, radiologists and non-radiologist reporters alike.”



# ULTRASOUND 2019 NEWS



It just doesn't seem 5 minutes since we last saw you all for the 50th ASM in Manchester, and yet here we are May already(!) and preparations are on full throttle working towards Ultrasound 2019 in Harrogate. And what a meeting we have planned!

# ULTRASOUND 2019 NEWS

The stream leads are busy finalising their programmes which are brimming with informative, thought provoking and entertaining presentations. The theme for all streams at this year's ASM is "Diagnosis, Disease and Delivery" - this is intended to ensure that the Ultrasound Practitioners education includes, of course, ultrasound diagnoses but for this year has also been widened beyond this to include the 'Fundamentals of Cross Sectional Imaging', disease processes, clinical knowledge and how this impacts on the delivery of services and patient pathway, enhancing and pushing the boundaries forwards in medical ultrasound. The 10th - 12th December are definitely dates for the diary to come and celebrate all things ultrasound with us.

It gives me the utmost pleasure to announce that Dr Trish Chudleigh has kindly agreed to give the Donald, MacVicar, Brown (DMB) Keynote lecture. During her career Trish has inspired many sonographers through both her academic and clinical teaching, most notably by co-authoring the highly regarded book 'Obstetric Ultrasound - How, why and when', a key text for many trainee

sonographers. Trish remains an active member of BMUS, leading the Obstetric stream again this year. Over the years she has given numerous presentations at Society meetings and is a regular contributor to the BMUS journal. Criteria expected of the DMB speaker includes 'recognised by BMUS for their inspirational work and contribution to medical ultrasound practice' - Trish certainly fulfils this statement in its entirety and we are greatly looking forward to the presentation. This Keynote lecture will take place at 4pm on **Day 1** of the conference.

I would also like to broadcast that we will be taking nominations for the inaugural 'Sonographer of the Year' award. Nominations will be open shortly! It is an award to celebrate outstanding contributions made by ultrasound practitioners across the nation. If you can nominate a champion of the profession do so right now via the BMUS website. The winner will be announced at the ASM Winter Ball on Wednesday 11th December.

You spoke - and we listened! 'More bowel ultrasound' was a recurring theme in last year's feedback and therefore, following on from

this successful addition to the programme, we have allocated the intestines a stream of their own with expert faculty providing enlightening educational lectures and practical workshops - a session on Day 1 not to be missed.

Also on Day 1 the trainee/student stream returns building on from the successes of its introduction at last year's ASM; Jane Arezina and Gareth Bolton as stream leads for 2019 have put together a fantastic programme to develop the next generation of sonographers and showcase some of their work. Day 1 also provides us with the ever popular Obstetric core stream assured to be informative and enlightening, alongside the scientific and illuminating Physics stream.

**Day 2** is an essential day to attend if your interests lie within Women's Health as the Gynaecological ultrasound stream takes place, with experts in the field providing the educational content and also the return of the previously well received Breast ultrasound stream. MSK ultrasound, head and neck, professional issues and translational/therapy ultrasound (ThUNDDAR) are also highly anticipated streams. The day will conclude with 'Question

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I particularly look forward to the Young Investigators' submissions which always provide innovative and original papers making this stream so very successful – and long may it continue!

”

Time' – with some stimulating debate initiated by the delegates on the floor, moderated by BMUS President, Dr. Rhodri Evans, and an expert panel. A forum where even the difficult questions can be asked and debated – in very professional manner of course, and is assured to be lively! A session not to be missed!

**Day 3** highlights will include more head and neck and professional issues alongside the ever present and educational General Medical/ Paediatrics and Vascular streams which always deliver excellent content by highly acclaimed authorities within their field. I am also delighted to welcome back our Veterinary colleagues on this day.

Throughout the 3 days there will be hands-on workshops including Bowel, MSK, General Medical and this year will also include an Obstetric workshop. Registration opens on 1st July so please book your place early to avoid disappointment, these sessions are offered with limited spaces to ensure that quality is time dedicated to delegates by the expert faculty.

The 'Call for Papers' for the meeting is now open! We look forward to receiving your abstract submissions

under the various categories. I particularly look forward to the Young Investigators' submissions which always provide innovative and original papers making this stream so very successful – and long may it continue!

Final words for now – having visited the conference centre in Harrogate recently, the venue is sure to add to the exciting atmosphere that the BMUS ASM creates. After all it was the successful host venue for the 1982 Eurovision Song Contest – where the U.K. was placed 7th in the standings with the song 'One Step Further' - nothing further to be added is there?! Except, the exhibition space is perfect to wander round all the manufacturers supporting the event and discuss the new cutting edge technologies, meeting up with old friends and colleagues and making some new acquaintances! Lastly don't forget to join us at the Winter Ball on Wednesday evening – always a night to remember!

**Catherine Kirkpatrick**  
2019 Scientific Organising Chair



# TOP TIPS

**BMUS has compiled some TOP TIPS from our experts, these will hopefully support you in developing your ultrasound practice**

## Ultrasound Quality Assurance

**Lincoln County Hospital's Nick Dudley, Physicist and Chair of the BMUS Physics and Safety Group, shares his top tips for QA.**

### **1. Ultrasound QA is legally required.**

The specific legislation for ionising radiation can distract us from more generic legislation; this covers the management of medical equipment and standards in healthcare and also requires equipment QA. The Health & Social Care Act and the Provision and Use of Work Equipment Regulations require that equipment is suitable for purpose, regularly inspected, properly maintained and that risks are assessed and mitigated; this can't be achieved without a QA programme. There is also a misconception that maintenance contracts include QA; they rarely do.

### **2. The literature shows that over 90% of faults may be detected by simple visual inspection and uniformity assessment.**

These activities form a key part of the BMUS guidelines for Sonographer QA and take only a few minutes (1). Many Ultrasound departments don't have the support of Physics or Engineering services. Sonographers are highly trained professionals, capable of following the BMUS guidelines and implementing a QA programme.

### **3. Use specific settings for uniformity assessment, including a shallow focus to ensure a small transmit aperture; this improves the chances of seeing single element dropout.**

Modern controls such as compounding and advanced processing can mask uniformity faults; so turn them off.

### **4. There is very little guidance on managing faults.**

Here, the CQC requirement "exhibiting only minor deterioration" is useful. To comply with this needs a risk assessment, taking account of the use of the equipment, to determine whether the deterioration is minor. For example, a single line of dropout in the periphery of the image may be acceptable, but a large area of dropout anywhere in the image is not. A damaged probe may be an electrical and infection hazard, even if imaging is not affected.

### **5. Don't forget that acceptance testing and audit are essential elements of a QA programme (2).**

Although within the capabilities of Sonographers, these can be more time-consuming and technically demanding so it may be more appropriate to seek the support of a nearby Medical Physics and Clinical Engineering Department or an independent provider.

(1) Dudley N, Russell S, Ward B and Hoskins P; BMUS QA Working Party. BMUS guidelines for the regular quality assurance testing of ultrasound scanners by sonographers. *Ultrasound* 22, 8-14, 2014

(2) Russell S, Dudley N, Evans T, Hoskins P, Watson A, Starritt H. Quality assurance of Ultrasound Imaging Systems. IPEM Report No 102. IPEM, York 2010

**Contact [emma@bmus.org](mailto:emma@bmus.org) if you would like us to share your Top Tips**

# NOMINATIONS TO BMUS COUNCIL - 2020



**In accordance with the Memorandum and Articles of the Society, applications are invited from resident UK BMUS members for several vacant positions, which arise at the end of the current year, on BMUS Council.**

BMUS Council comprises a maximum of 18 members, 12 of whom are elected from the membership of the Society. This elected group is currently represented by 3 Clinicians, 2 Physicists, 1 Educationalist and 6 Sonographers. Under the Society's Articles the minimum numbers required from each speciality is two members. Nominations are therefore invited from all specialties to fill these vacancies, however to maintain an appropriate balance on Council, applications from Clinicians would be particularly welcomed at this time.

The online application will close at midnight on Sunday, 2nd June 2019

To submit a nomination please use the online form which is available on the BMUS website homepage under the 'News' section on the right-hand side.

Please note that nominees must be proposed and seconded by two members of the Society and should include a brief summary of their present position and relevant activities within their submission, therefore please ensure that you have this information prepared before beginning your submission.

*No member may make more than one nomination.*

**Prof Adrian Lim**  
Honorary Secretary

# SONOGRAPHER CAREER DEVELOPMENT



As I am sure you will be aware Health Education England (HEE) have been working with key stakeholders in the ultrasound world on a sonographer workforce project. This work has been on-going for a number of years which reflects the complexity and challenges faced when trying to define a sonographer profession within an existing, but somewhat ill-defined, workforce. What may have appeared to be a relatively simple task in the outset has become a multi-faceted project requiring sub-groups to review and challenge preconceived ideas and established practice whilst developing a realistic alternative.

“To safeguard our future profession, and deliver patient care, we need to ensure there is a sustainable, motivated, trained and supported sonographer workforce.”

2018 saw real progress in this project. HEE commissioned CASE to review existing accreditation processes as well as produce supporting documentation outlining the learning outcomes required at the emerging undergraduate education route. This project was signed off in June 2018 after a tremendous effort by the authors and review group. The outcome of this has ensured that CASE has standards by which it can measure and accredit ultrasound education as well as providing guidance to the Higher Education Institutes who will be formulating and delivering new programmes.

In addition to this essential document the steering group of the HEE project, which comprises representatives from BMUS, CASE, HEE, RCR, SCoR and the sonographer apprenticeship trailblazer group, produced a document which clearly defines the vision for “The Future for NHS Ultrasound Service Provision”. This document is the anchor for the HEE project. Work related to this project has to align with this vision to ensure the future standard of care for our patients can be delivered.

To safeguard our future profession, and deliver patient care, we need

to ensure there is a sustainable, motivated, trained and supported sonographer workforce. Earlier work within the HEE project has highlighted the significant workforce gap which exists and something has to be done to bridge this. The development of an undergraduate route into the sonography profession has to be considered alongside, not in replacement of, existing routes if the profession is ever going to have sufficient numbers of sonographers available to meet growing demand. The steering group however is completely aware of the concerns that an undergraduate programme raises and this has led to the HEE project developing a structured and deliverable career progression framework for sonography. This framework does include an undergraduate entry level into the profession but it also describes post graduate entry and, importantly, describes the development route through the profession to advanced and consultant practitioner level. The framework is closely aligned to the CASE educational standards and the steering group vision document. The existing norm is challenged but as the existing norm is not providing sufficient numbers of sonographers perhaps this is the time for the profession to embrace change?

Despite all the activity in 2018 the project is far from complete. The third aspect of the steering group project is to define the progress through the sonographer career framework from first post, career level 5, through to career level 7 and beyond. This provides an exciting opportunity for BMUS to work with fellow key stakeholders to clarify and advise on future career opportunities for new and existing sonographers.

There are, of course, two real and significant issues that still need to be addressed and resolved; training capacity and regulation. These very important issues are not being ignored. Indeed, HEE are working hard to produce a case of need for sonography statutory regulation that can be submitted to government - the evidence is compelling, but the process is protracted. The second significant issue is training capacity; how are all these sonographers of the future to be trained? Where is the capacity to do this? How will it be funded? Big questions which are difficult to answer. However, this is being addressed with a sub-group specifically looking at options and opportunities for the future.

However, these options and opportunities, developments and challenges all rely on a profession

# SONOGRAPHER CAREER DEVELOPMENT

wide response and buy in. These cannot be met purely by the individuals involved with the projects both on a national and local level alone. A recent article by Sevens and Reeves published in Feb 2019 (Radiography 25 (2019) 77e82) summarised that there is a perceived lack of national leadership and that these issues raised, whilst real, are for a national "body" to sort. This perception has to be challenged. The national "body" that can sort this is the profession as a whole. Sonographers will need to buy into the need to train future staff, regardless of how hard this can be. Additionally, sonographers also need to buy into the need for a defined career progression framework and the opportunities that are available to the advanced practitioners and consultants of the future.

As for leadership, HEE are taking this workforce project very seriously. They have a mandate "to ensure the NHS has available the right number of trained staff to deliver current and future demand for diagnostic tests". By working with a collaborative, profession wide approach this can, and will be delivered.

On behalf of BMUS, I will continue to advise, steer, and encourage (some may say coerce) multi-professional working to deliver the very best in terms of a sonographer profession and defined framework of which we can all be proud.

**Pam Parker**  
President Elect



# EFSUMB NEWS



To give you a little background EFSUMB was founded in 1972 on the principle of independent national societies forming a federation to promote research and interdisciplinary collaboration in the field of ultrasound. This principle extended to representation within the World Federation of Ultrasound in Medicine and Biology (WFUMB), as an integral part of the EFSUMB constitution.

# EFSUMB NEWS

The administrative work of EFSUMB was established in the UK due to favourable setting for Charities. This base has served EFSUMB well, and the Society is currently in a stable financial position. However due to events outside its control EFSUMB is currently facing a considerable amount of change and uncertainty; these challenges facing EFSUMB could see its dissolution. I think we can all agree that the existence of EFSUMB is essential given the role on the international stage of ultrasound and the pivotal influence we have on the global practice of ultrasound.

BMUS is currently one of 29 national societies that form EFSUMB and, as a member of BMUS, each individual member is automatically a member of EFSUMB as the membership fee paid by BMUS is based on current membership levels. The policy of all members of the national society being members of EFSUMB had obvious advantages in 1972 when the practice of ultrasound was limited. This is very different today with millions of ultrasound users, in many areas of medicine.

A recent decision in Switzerland has brought into sharp focus the need to look at our governance arrangements. The Ultrasound Society of Switzerland (SGUM), a founder member of EFSUMB, had a process imposed on the society by external governmental policy. This policy obliged SGUM members to declare they wished to be members of EFSUMB and not by default as is currently the case. This resulted in only 16% of SGUM members choosing to remain as members of EFSUMB. This has created a constitutional crisis for EFSUMB, as according to the constitution SGUM could no longer be a representative society as not all their members wished to be members of EFSUMB. This means that SGUM would cease to be an EFSUMB member society and have no voting rights. This is because the EFSUMB constitution, states that 'if any country had 6 members or more, they have to form a national society, and apply to EFSUMB as a national body.' However, the constitution only allows for a single member national society and those Swiss members wishing to remain as a member of EFSUMB would now have no way of being admitted into EFSUMB membership.

However, it is also pertinent that many members of SGUM have chosen not to continue membership, and this situation may be repeated with other national societies if obliged to follow local laws and procedures. In addition to this the German society, DEGUM, the largest component society of EFSUMB, have indicated that they too find the model of national society membership with full declaration of members unsatisfactory.

EFSUMB is a society for those using ultrasound and not the property of the Executive Board (ExB) or any other committee and should be run at the bequest of members. There must be action to make EFSUMB an attractive society based on the founding principles to promote ultrasound. That EFSUMB does good work is not disputable; the website, the EUROSON Schools, the guidelines and statements, and most importantly an almost unique position and authority on the safety of ultrasound. What EFSUMB has not done is to promote this good work to its very own members! This was realised with the low 're-joining' from SGUM and the disquiet within DEGUM.



In order to get a better idea of the current climate and future direction, the ExB has commissioned two tasks; an online member survey and a Task Force Group, to have visualisation of members feelings and to implement an overhaul of the structure and forward direction of the society.

We had a limited response to the survey, but several themes have emerged, many known from recent events, and others not so apparent. One strong theme is communication to the members from the ExB, and another is to clearly depict the finances; it was a common misconception that money was spent on unnecessary travel which is firmly not true; the accounts are very clear on this.

The task group has met and made recommendations and some areas of interest to look at to begin the process of change.

- The website, currently 'free' to all will be changed to have member only areas.
- The possibility of individual members will be addressed;
- The position of more than one national society will also be

addressed. A particular issue with the smaller societies was representation on the various committees and the ExB, which they see dominated by the countries favoured by the voting system that prevails in the society; the block voting denies representation to smaller societies.

- A rotating EUROSON Congress was seen to be outdated.
- There was no place in the society for sections of ultrasound practitioners in gynaecology.
- The interests of general practitioners in clinical ultrasound was not represented adequately in the activities and structures of EFSUMB.

It is evident change is needed in the best direction for as many as possible.

To this effect, the ExB in collaboration with the Task Force Group will present constitutional change to the Board of Delegates in Granada at the EUROSON Congress, and if passed will seek to implement change immediately thereafter.

I will bring you the results of this change shortly following the congress with a view to hopefully starting a new chapter for EFSUMB.

**Paul Sidhu**  
President of EFSUMB



# PROFESSIONAL STANDARDS UPDATE



**5** months into my tenure as the Professional Standards Group (PSG) chair and I'm pleased to report that the wheels are certainly in motion ensuring BMUS continues to take a frontline approach to professional excellence.

The first meeting of the PSG this year took place in February and proved to be a forward thinking, successful meeting, setting out the projects we hope to achieve within the next 2 years. As the future cannot be accurately predicted (as yet), we took the opportunity to ask the group to do some 'Horizon Scanning' in anticipation of the future direction of Ultrasound Practice to ensure relevant collaborations and projects continuing to underpin recommendations for quality and safe practice by ultrasound practitioners.

There has been a recent minor interim update to the 'Guidelines for Professional Ultrasound Practice' released in March 2019, which BMUS members have access to via the BMUS website. The updates include links to PCOS imaging recommendations, multi-profession CPD advice, BMUS guidance on scanning volunteers (including pregnant volunteers) and a new Society and College of Radiographers (SCoR) document on the recording of images by patients. Over the coming year BMUS will be compiling a major revision of the Guidelines in conjunction with the SCoR.

A major undertaking for the PSG will be the production of justification guidance for paediatric ultrasound requests to go alongside the justification document already in place for adult general medical ultrasound requests, this guidance has proven to be immeasurably

useful to the production of local protocols in the UK. A team of experts will be collating the most up-to-date evidence and research in order that our smaller patients receive the right test at the right time by the right practitioner. This guidance links to GIRFT (Getting It Right First Time) a national project which we aim to highlight in our ASM Professional Issues programme by one of the UK GIRFT leads, at Ultrasound 2019 in Harrogate on 10th – 12th December.

Following on from this – we need the help of our members. You will shortly receive a survey asking our members about your local ultrasound protocols, whether indeed your departments all have them, use them and keep them up-to-date and how the documents and guidance BMUS has produced is being used. We will be looking into the barriers as to why some departments do not use national guidance as effectively as they might, or if alternative methods of keeping patients and staff safe are being employed locally. BMUS is committed to promoting education and excellence and safety amongst all practitioners who use ultrasound and research into this area is essential.

The group will also be reviewing existing documentation, updating and providing additions where necessary – one addition that will become be useful to all ultrasound practitioners will be the work put forward on the 'management of incidental findings'. Ongoing

reviews to clinical guidance are at the heart of the PSG's work – updates will always be brought to your attention using Ultrapost, the BMUS website and Twitter/Facebook, so #makesureyouaresignedup! to keep abreast of developments.

We will continue to work with our Radiology colleagues closely on joint RCR and SCoR projects to ensure combined expert representation in the field of ultrasound from our SIG committees.

As you can see from this brief report of the Professional Standards Group first meeting of 2019 – there is a lot to keep the expert team busy!

Finally an unmissable date for the diary alert!!! The 51st Annual Scientific Meeting is being held at Harrogate International Conference Centre on 10th-12th December 2019 - the Professional Issues Stream will be informative, enlightening and educational covering hot topics affecting ultrasound practice including patient advocates, legal issues, CASE/HEE, GIRFT, CQC, ISAS and many more acronyms!

**Catherine Kirkpatrick**  
*Development Officer*

# BMUS IN SCOTLAND



After a long absence, in March this year, BMUS took a trip to Scotland for a General Medical Study Day. The day was well attended and it was pleasing that there was a real buzz around the lecture room. Initial feedback from the course has been very good and the majority of delegates felt the level of education met or exceeded their expectations, which as always is rewarding to hear.



Glasgow and the Caledonian University presented a lovely and welcoming back drop to our first in a while Scottish Study Days. A huge thanks must go to the team at Caledonian University, nothing was too much trouble and their support of the day contributed to its success.



The faculty with a Scottish flavour delivered presentations in Bowel Ultrasound, the Cirrhotic Liver, Biliary Tract, Acute Scrotal Ultrasound, Probe Decontamination, Current Practice in DVT, the Sonographers input into Health Promotion and 'A Stab in the Dark' - a sonographer's experience of fine needle aspirations in ENT.

We are currently compiling our study days for 2020 and are busy planning our next trip to Scotland. BMUS is committed to rotating events around the country so that all our members can access education and CPD without having too far to travel. Our Events Page on the BMUS website changes regularly so please check to find the events that are close to you.



## June

**International Hepatology Ultrasound Course**

*14th - 16th June, London*

**EUROSON School 5th International Paediatric CEUS Course**

*24th - 25th June*

## July

**BMUS Head and Neck Study Day**

*3rd July, London*

## September

**MSK Dissection Cadaveric Course (lower limb)**

*21st September, Keele University*

**BMUS Paediatric Study Day**

*27th September, Bristol*

## October

**BMUS Obstetric Ultrasound Study Day**

*4th October, London*

**For all of 2019's programmes and to register, please visit [www.bmus.org](http://www.bmus.org)**

Each year, BMUS runs a varied programme of educational study days and courses across the country. All courses carry BMUS CPD Points.