ARTP Association for Respiratory Technology & Physiology

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INSPIRE

HIGHLIGHTS ...

A report on the current use of oscillometry in routine lung function testing

Grow your own physiologist: An in-house trainee's journey through respiratory and sleep diagnostics

Impact of Community Diagnostic Centres (CDCs): Reducing waiting times and improving access

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First word

Dear Readers,

Welcome to the summer edition of INSPIRE. The post conference publication would traditionally include all the abstracts from the conference. However, ARTP's new affiliation with the British Medical Journal Open Respiratory Research means these will be published in an upcoming edition of the BMJORR so look out for that.

Despite the absence of the abstracts we have still managed to have a fully-packed edition with several articles from conference grant award winners. Topics include: **the use of oscillometry in the UK, growing your own physiologist and the impact of Community Diagnostic Centres in reducing waiting times.**

We have our regular features with **'Lab in the Limelight'** travelling back over to the North of Ireland to get an insight into Melissa Traynor's fascinating early diagnostics mobile lung function lab. **'Respiratory life stories'** delves into the life and career of Molly Sobola, who has been Chief Physiologist for the last 27 years at Guy's and St Thomas' hospital. Additionally, one of our long-serving ARTP members, **Trefor Watts**, will have been working in the NHS for 50 years come September. He has provided an insight into his career throughout this time. **'Fresh Air'** looks at using smart phone video clips to diagnose obstructive sleep apnoea in paediatrics. **'On the Blower'** has some manufacturer news and finally, I have included more of the **'Getting to know the ARTP Committee Chairs'**, looking at our sleep and spirometry committee representatives.

Many thanks to all the contributors and to the editorial committee for their diligent work. I will be on the lookout for content to include in December's edition so if you would like to submit an article please get in touch.

Paul Burns
ARTP INSPIRE Editor
inspire@artp.org.uk

A Word from the ARTP Chair

Dr Joanna Shakespeare
ARTP Honorary Chair

Hello and welcome to the summer edition of INSPIRE 2025. I write this 'Word from the Chair,' sat in the garden in the shade on what is about to be the hottest June day on record! My 'Word from the Chair' request from our Editor seems to come around all too frequently but when it does, it gives me an excellent opportunity to reflect on what we have accomplished over the last few months. I also note that this edition is my first anniversary edition as Chair; time flies as they say.

Since our last edition of Inspire we have held our ARTP Annual Conference which this year was held in sunny Glasgow on 1st-2nd May. This was our biggest ever conference with thirteen last-minute delegate registrations making it the highest attended ARTP conference on record. We had 359 registered delegates, 77 abstracts presented, 9 industry workshops, 35 manufacturers in attendance and a total of 350 attending the gala dinner on the final evening. Conference also had an international feel with two of our colleagues from the Netherlands attending for the first time.

Matt and I welcoming our colleagues from the Netherlands to the ARTP Conference. Rachel Ong Salvador Chair of ERS Group 9.1 and Monique Van De Mierde

A huge thank you to the events committee, led by Laura Jess, for all their hard work putting together a fabulous event in a really wonderful conference centre. ARTP conferences have come a long way over the last 49 years, and the growth recently has been immense, necessitating the need to move to a conference centre venue rather than single hotel venues. I appreciate that this can lead to potentially lose the ARTP 'family' feel to conference, but we will continue to plan events to be as inclusive and familiar as possible whilst allowing the conference to grow in both size and educational experience for the delegates and our industry partners. Thank you to all who took the time to provide feedback following the conference. An initial review of the feedback has been undertaken with a plan for a more detailed assessment in the coming weeks as we start to plan the 2026, 50th anniversary conference. Scores for all spoken presentations were excellent, with average scores of between 4.04 and 4.70/5.0.

The ARTP Annual General Meeting (AGM) was held during the conference and many thanks to those members who took the time to attend and support the organisation. Constitutionally, we have to undertake an AGM but it is also the opportunity for us to update you all on what ARTP has done over the last 12 months to support you as members and what work we are planning to undertake over the coming 12 months. It is also an opportunity to thank those committee members whose tenures have come to an end and vote in new Chairs. At this AGM we thanked Mike Lang, whose position as ARTP Treasurer ended after approximately 10 years. Mike has done an amazing job of balancing the books for ARTP, particularly during the very difficult COVID era where it was not possible for ARTP to generate any significant income. Mike has been replaced by Richard Glover who is already demonstrating that Mike has left the finances in very capable hands. Other Executive Board members standing down at conference included Emma Fettes (Paediatric Chair) and Andrew Morley (Sleep Chair) who have been succeeded by Philip Lawrence and Edward Parkes, respectively.

I apologise that we have not yet been able to announce the venue for the 50th anniversary conference. The rapid development to requiring conference centre venues has made it tricky for us whilst continuing to manage a tight budget. We are confident that we have now secured a venue but are awaiting confirmation with regards to subvention funding (required to make the conference financially viable). I anticipate an announcement just after (or maybe just before) the publication of this edition of INSPIRE. We are aiming to have plans in place for future events much earlier with many new venues across the UK recently opening, providing us with much more choice.

At the start of July, we announced the decision to increase membership prices from 1st January 2026. As an organisation we have not increased our membership prices for over 10 years and I am sure you can appreciate that with inflation and general price increases across the board, a membership increase was inevitable. Prior to the price increase decision, we reviewed the membership structure, making it easier for new members to identify which membership to apply for but also ensuring that our junior and student colleagues pay the lower tariff. Once our new website is launched, management of your membership, and also identification of membership benefits such as savings as a result of your membership, will be easier to identify.

As a charitable organisation our aims are not to make a profit from our income, and we continue to look at how we can invest in our members. May 2025 saw the launch of a series of ARTP webinars aimed at providing members with additional learning opportunities. Our first webinar focused on Breathlessness Pathways with presenters outlining their pathways, illustrating improvements in diagnostic and treatment times, and emphasising the role of Healthcare Scientists in the patient pathway. Our second webinar on the Optimal Sleep Pathway was delivered in collaboration with the British Sleep Society (BSS). The attendance at both events was excellent and I hope that this illustrates that short webinars are a useful way of engaging with and supporting our members. I am grateful to all involved for giving up their time to support these events. If you missed any of the webinars then you can access the recordings via the ARTP website.

Another recent membership offer was that of equivalence bursaries for STP and/or PTP equivalence with the Academy for Healthcare Science. We had a really good response to

this initiative with a total of 7 PTP and 9 STP bursaries offered. I hope that we will be able to continue this offer in future years, and we will look to provide more advice and support for applicants in the future to make it more likely that they will be successful.

In addition to our recent collaboration with the BSS, we have been continuing to work closely with our other partner organisations. This year we extended the ARTP/BTS short course to include a second day looking at more advanced physiological investigations, with ARTP members significantly contributing to the faculty on both days. Initial feedback was excellent, and we hope that this format will continue in future years. ARTP members have also supported the agenda for the recent BTS Summer meeting with an excellent session showcasing the advanced roles of Physiologists/ Clinical Scientists in delivering acute Non-Invasive Ventilation, cardiopulmonary exercise testing and sleep clinics. We will be supporting the Winter Meeting, and I would encourage members who may not have attended BTS meetings in the past to consider attending, membership of the society is heavily subsidised for healthcare scientists.

Some of the ARTP/BTS Short Course Faculty. Left to right: Dr Neil Greening and ARTP's very own Dr Karl Sylvester, Dr Joanna Shakespeare and Matthew Rutter.

During the last AGM we asked members for feedback on what you would like to see more of this year. The top answers (except for Karl!!) were courses and webinars. We will look to build on the success of our recent webinars with a whole series of events. Please, if there are topics you would like to see covered, please contact us to let us know. We are working with Helen Purcell, our Education Chair, to develop the range of courses available and to generate an annual course outline so members can be more aware of what courses are planned over the next 12 months. The sleep committee is also working very hard on redesigning courses, adding additional dates for popular courses, and launching new courses, so watch this space.

Finally, a little save the date reminder. The National Strategy Day 2025 will be held in Birmingham on 12th December which will be perfect timing for a trip to the German Christmas Markets. Sorry for mentioning Christmas in the middle of summer! Matt Rutter is working hard on the agenda with a plan to continue with the highly successful format of last year with workshops and an update from ARTP committees. Look out for further information in your inboxes soon.

I will leave you to enjoy this edition of INSPIRE. Wishing you all a lovely summer and I hope that you get to spend some well-deserved time away from work with family and friends. As always, I would like to continue to encourage members to communicate with myself (chair@artp.org.uk) or specific Committee Chairs (via admin@artp.org.uk) as much as possible. Please feel free to ask questions, raise comments or concerns where required.

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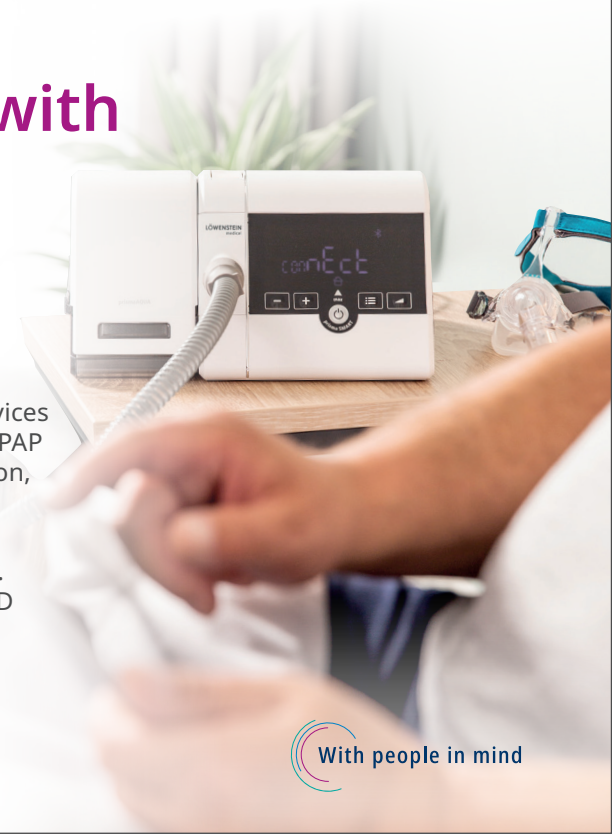

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With people in mind

Respiratory Life Stories

Molly Sobola

Interview with INSPIRE Editor - Paul Burns

For this issue of respiratory life stories, I spent an enjoyable and insightful hour and a half chatting to Molly Sobola (Dasaolu), Chief Respiratory Physiologist of the lung function department at Guy's and St Thomas' Hospital (GSTT). Molly has been the Chief Physiologist for nearly twenty-seven years, so she has a wealth of experience. Speaking with Molly reveals a clear passion for her job, particularly in training new staff, recruitment, and workforce development. She has had to work hard and has had to be quite resilient to get to this point in her career.

Reflecting on our chat, I think this may be a good eye-opener for ARTP to consider inclusion and equality. From speaking to Molly, it is possible that ARTP has fallen short in this area in the past; hopefully, introducing an ED&I chair to the Executive Committee will help improve this.

I recall first meeting Molly at the ARTP conference in 2017 in Belfast, where she was friendly and passionate about respiratory physiology. It has been a while since we last spoke, so it was great to catch up with her and hear her story.

Tell me about your childhood and where you grew up

I was born in the UK but raised in Nigeria. My mum worked for the post office as an accountant clerk. My dad was studying Electrical and Electronic Engineering at the then Reading Polytechnic, Berkshire. He worked with the British Military whilst in Reading. At the time my mum was pregnant with me, so that's where I was born. After a few years, we moved back to Nigeria, which I am happy about, as my faith and values are very important to me and central to who I am, and this was instilled in me in Nigeria.

Tell me how you got into working in respiratory physiology

I came back from Nigeria in the early 1990s. There was a recession, and John Major was the Prime Minister. If you had been unemployed for six months or so, you could go to college and study. This is the path I took and ended up going to the North East Surrey College of Technology (Nescot). I studied Medical Physics and Physiological Measurement (MPPM). For the physiology teaching, we had physiologists from different disciplines come in and deliver the teaching in a similar sense to what the STPs get in their training, although they came to us to deliver the teaching at our place of study. After this, we had to choose a discipline for our placement. We had teaching in respiratory, neurology, cardiac, audiology, and vascular. I felt like all the disciplines involved the practitioner doing something to the patient, other than respiratory. It was more about communicating and engaging with the patient. That sat nicely with the kind of person I am, as I like to engage with and involve people in what I am doing. One of those who came to teach the respiratory aspect was Derek Cramer, who was based at the Brompton. He was an excellent teacher, and this also had an influence on my choice of respiratory.

As it happens, my placement during the college course was at Guy's Hospital! Martin Gillion, with whom I currently co-lead the department, had just started as a physiologist when I attended for my placement. He had just finished a biology degree. I had a supervisor, named Annette Henman, but the person who supervised me day-to-day was Simon Hilldrup, who is based in Wales now, I think. I had to do a project as part of the placement and when I look back now, I realised I was testing the validity of the Vitalograph Compact spirometer. At the time, I didn't know what it was or what I was doing, but looking back now, it all makes sense! Annette made a comment that I paid a lot of attention to detail during my time there. I must have been asking a lot of questions!

Where was your first job in respiratory physiology?

When I finished the course, they asked me to stay to do further qualifications, but it would have cost money and I wasn't able to fund it, having just moved over from Nigeria but I wished I could have. The professor at the time mentioned that they might have tested me for dyslexia because I had no problem with the numeracy work; however, I was making a lot of errors in the writing tasks. Looking back, maybe this was his way of telling me to stay on. He told me that if I went to study anywhere else, I should ask for support. Following on from Nescot, I was desperate to get out and work and get some more experience. I wrote a letter to the Chief Physiologist at North Middlesex Hospital, Janet Dunford.

Janet has passed away now. I asked if I could go there and volunteer. Although I had some good experience from my placement at Guy's, I hadn't been testing patients, just doing quality control tests on staff, so I thought it was essential to get some experience with testing patients. Janet realised that I was good at the job and had potential, therefore she spoke to management and offered me a paid job as a Medical Technical Officer grade 1 (MTO1). However, I still had to interview for the job and was successful.

How did your career progress from here?

The lab started to grow, and I got a promotion to a MTO2. I ended up working there from 1993 to 1997. Before I left, they had an MTO3 post vacant, but I didn't feel like I had enough experience. Janet didn't encourage me to apply for the job, so I never did. The person who came into the job was a qualified nurse at the time, and she had good experience working in the healthcare setting. However, she didn't have much respiratory physiology experience; therefore, I had to train her. In hindsight, I probably should have applied for the job, as I ended up teaching the successful candidate!

It was then that I realised that I should gain my ARTP national assessment to give me a better chance of achieving a higher grade and working my way up. I undertook this whilst still at North Middlesex, and my examiner was Adrian Kendrick. I passed the first time, and this was my first insight into ARTP. I became frustrated, stuck as an MTO2 while training my senior, and then a MTO3 job at GSTT, based at St Thomas' hospital in the sleep department, became available. This was an attractive post to me as I hadn't done much sleep physiology. I interviewed for the job and was successful which I was delighted about. At this point, Janet offered me an MTO3 at North Middlesex to try and keep me, but I knew it was time to move on.

Tell me about your time working in sleep at GSTT

I started at GSTT in 1997, and the job was mainly focused on sleep and based at St Thomas' Hospital. We did both inpatient and outpatient sleep studies. We were doing full polysomnography and MSLTs. I was part of the team which looked at Seasonal Adjustment Disorder (SAD) and introduced light box therapy, led by Dr Adrian Williams. I had to be trained in sleep staging and scoring PSGs, which was a steep learning curve, but it was fun! I really enjoyed my time there and I do miss sleep physiology. Around a year after I started, the MTO4 who led the lung function unit at St Thomas' left and I applied for that role and was successful. This meant I was back doing lung function, but I remained involved in setting up the sleep studies, which was nice. I've always been passionate about the workforce, and I remember saying during my PDR to my boss at the time, Simone De Lacey, that I would like our band 5s (MTO1 -2) to rotate through cardiac, respiratory and sleep as they are all intertwined. When I initially led the lab in St Thomas', I had around five three staff in the beginning.

How has the department developed over time?

When I first started, Guy's and St Thomas' hospitals had individual leads for the respiratory labs. As people left the post, it is now just Martin Gillion and I who cross-cover both sites. We have expanded and now have eight physiologists and two cardio-respiratory apprentices across the two sites. The current financial situation means replacing vacant posts requires justification. When I had my first child, I went back full-time, but after my second daughter, I reduced my hours. I always remember talking to one of my college professors, whose wife was a physicist, and when she had children, she went part-time. The reason she did this was to focus on her children and help them get the best growing up, and this always stuck with me. After my first child, my mum helped me, but after my second daughter, I dropped down to 22.5 hours.

I feel like our department hasn't developed as much as it should have over time. In my opinion, a lot of this is down to the clinicians not fully engaging and working with the physiology staff to help development and innovation. We have a new clinical leader who is working hard to improve this. It is pretty sad, as we only do a little research, and for the GSTT brand and name, this isn't ideal. This has not been from a lack of trying or want on my part either, perhaps I needed to know how to work the office politics better!

One of the more recent developments is a physiologist-led CPET service with registrars assisting in taking blood gases. The introduction of multidisciplinary physiologists running CPETs without a consultant overseeing them. This is what we did historically, but it was rate-limited by the consultant. I then introduced a physiologist-led CPET service with registrars assisting in taking blood gases, etc.

Have you had any formal involvement in the ARTP?

I used to be an assessor for national assessments when we conducted them face-to-face, which is now known as the practitioner exam. I introduced the ARTP spirometry course to GSTT, training numerous nurses and other healthcare professionals. I was also a member of the spirometry committee.

You seem focussed on workforce and training. Is this something you are passionate about?

Yes, very much so. I have always been very passionate about training and developing young members of staff coming through. I have spent a lot of my career training other physiologists, and many of them now lead prominent labs in the UK. This is something I am particularly proud of. As mentioned, I was the first to teach the ARTP spirometry course in 1999 at GSTT. I have trained numerous PTP and STP

students and we were among the first departments in the UK to pilot cardiorespiratory apprenticeships. I worked closely with NHS England to implement this. Personally in 2021 I undertook an executive leadership and management apprentice MSc. I did this as I don't have a formal undergraduate degree, and I felt like it would be good to have some formal qualifications along with my experience.

Can you tell me about some people who have been inspirational in your life and career?

There are so many people. My mum, dad and siblings have all been supportive and inspirational. More than anything else, my faith is an inspiration for me. One of my favourite Bible lines is "Love the Lord your God with all your heart and all your might". My next favourite one is "Love thy neighbour as thyself". This is an inspiration to me, and I hope that anyone who has walked in my path would be able to say that this is true of me.

Professionally speaking, everyone I meet is an inspiration, especially my patients. Simone de Lacy and Derek Cramer were also an inspiration early on in my career.

Are you married with children?

I got married to my husband whilst I was working at North Middlesex hospital. We have two lovely grown-up daughters. They didn't go into healthcare as they said I was too poor! They were going to try something else! Both are still at home due to the current high cost of living.

On your LinkedIn, it has you as Founder & Director of DMAC International. Tell me about this.

DMAC stands for Diagnostic Medical Accessible Consultancy. I started this, as we know there are significant health inequalities that exist for ethnic minorities in the UK. As part of my management and leadership apprenticeship, I undertook a project which looked at missed appointments. My research identified that there were a lot of data to show that ethnic minorities were much more likely to have missed appointments. It is multifactorial. One of the reasons why there are a greater number of missed appointments is that ethnic minorities are more likely to be on zero-hour contracts; therefore, if you ask them to come to the hospital, they won't get paid. Communication and language are also a significant barrier to some of these people attending appointments. I shared these data with NHS England and internally within my trust, but I struggled to get engagement, which was frustrating! Therefore, I created this company because I wanted to be part of the solutions to the issues of health inequalities that affect minority communities. The aim is to improve access to essential diagnostics, specifically ones I have experience in e.g. sleep, respiratory, cardiovascular, diabetes etc. I am currently seeking

funding to support the deliverables for the company. I am currently working with stakeholders to try and develop it.

You mentioned before that the lack of support from senior medical staff has been a hurdle to you and your physiologists to produce research. Would you say that being a black woman in the profession may also have had an impact on this?

I am glad that you have said this, as I do feel that this is true. Whenever research is produced, clinicians will use the test data we produce, but often fail to involve the physiology department, which makes it difficult. When I completed my project for my MSc, I considered submitting it to ARTP, but previous experiences deterred me. I would be happy to send you my project to see if you think there is any good work in it.

I would love to publish your MSc work on health inequalities in a future edition of Inspire so if you would be willing please send it to me.

I would be delighted for it to be published in Inspire, so I will send it on.

Can you give me some of the highlights of your career?

The piloting of the level 2 and 4 cardiorespiratory apprenticeship. NHS England approached us to say they wanted to do this as part of their workforce strategy. I immediately said yes! I participated in the first cohort of apprentices alongside cardiac physiology, and now we are doing a second. Now that we are short of staff, if we didn't have those apprentices, we would be struggling, so they have been a great addition. We initially piloted three apprentices (one level 4 and two level 2), and we

currently have another two level 2 apprentices. I am pleased with this strategic workforce development in support of GSTT.

Gaining my MSc and starting up and running ARTP spirometry training courses has also been a highlight.

Another service development I was involved in was working alongside physiotherapy during CPET to help diagnose dysfunctional breathing. Historically, we saw the patient for CPET, and the results were sent to the doctor who discussed it with the physiotherapist. However, now we have the physiotherapist attending the CPET, making this a more patient-centred, streamlined and accurate process.

All the STP and PTP people I have trained are also a highlight. One of the physiologists with whom I worked formerly, is Rasheda Choudhury, who is currently pursuing an HSST and is the lead healthcare scientist at Bart's. She is a very motivated individual.

Your LinkedIn also has you as Director of SheaClass. What does this involve?

Looking back, I had a passion for chemistry that continued even after my children were born. However, they were born with eczema. The doctor would just prescribe steroid creams which we know had detrimental side effects and they didn't always work well. I began mixing natural remedies and made skincare creams to help them and they worked! In 2019 I decided to start a business with skin creams, but then in 2020 COVID hit and I was also studying, so it only really started last year. The products help alleviate the symptoms of eczema, psoriasis, acne, etc. This is my escape plan after my service to the NHS!

What does the future hold for Molly Sobola?

I will continue in my Physiology role at GSTT, supporting patient-centred care in line with the 10 years NHS Plan, the workforce and collaboration with others in achieving the objectives. I have DMAC and SheaClass to also keep me very busy!

QUICK FIRE QUESTIONS

Favourite food & drink?
Abula – this is a Nigerian dish. It is made from Yam or plantain flour into a mash, and it is eaten alongside a bean sauce and meat
Drink - Water

Celebrity crush?
Nelson Mandela

Favourite film?
Pretty Woman

Nicknames?
Molly Macmole (Simone called me this as I have a mole)

Favourite pastime?
Walking, sewing and baking

Karaoke song?
Any Gospel music (I also love to dance to this and often do it whilst listening to my music walking down the street!)

Favourite holiday destination
In my dreams (Hawaii) or somewhere in Africa, other than my home country.

Favourite memory?
The birth of my children
Getting my MSc
Meeting new people
Speaking to you!

Biggest bugbear?
Inequality

For anyone who would like more information on Molly's venture at DMAC International please contact her on LinkedIn at linkedin.com/in/m-o-sobola or email her m.sobola@nhs.net.

Her natural remedy skincare products to help treat common skin conditions can be found at www.sheaclass.com

A report on the current use of oscillometry in routine lung function testing

Madison Geeves *Hampshire Hospitals NHS Foundation Trust*

Background

Oscillometry is a method used to assess lung mechanics during tidal breathing[1]. Although it has existed for many years it has yet to become a standard tool for routine lung function testing. The following report aimed to explore the current use of oscillometry within respiratory services in the UK.

In December 2023, respiratory physiology departments were asked to complete an online national survey, disseminated electronically to all Association for Respiratory Technology and Physiology (ARTP) members and further distributed via LinkedIn, X and the ARTP forum. The survey was administered using an online platform (onlinesurveys.ac.uk, JISC, Bristol, UK) and remained open for one calendar month, closing in January 2024.

The primary objectives of the survey were to
1) investigate the prevalence of oscillometry within respiratory services in the UK,
2) understand the reasons for utilisation, and
3) understand the barriers to adoption of the technique.

Results

In total, 46 survey responses were received. Two international responses and two duplicate responses were excluded therefore data presented is based on 42 responses. All responding hospitals were National Health Service (NHS) organisations from England (83%), Ireland (2%), Scotland (10%) and Wales (5%). The majority of participating services were from secondary care (69%), whilst 29% were from tertiary care (specialist centres) and 2% from primary care. 69% were predominantly adult services, with 12% paediatric and 19% mixed. Of the responding services, the average number of full time equivalent (FTE) respiratory physiology workforce employees was 7.4, ranging from 1 to 23.

Figure 1 displays the respiratory physiology tests including routine lung function tests used by responding services. 'Other' primarily included multiple breath washout (MBW), exercise-induced asthma (EIA) or bronchoconstriction (EIB) testing, incremental shuttle walk test, oxygen assessments (LTOT/AOT), arterial and capillary blood gas (ABG and CBG) sampling and antibiotic challenge testing.

Prevalence of oscillometry

Figure 2 shows a summary of the responses with respect to the prevalence of oscillometry. Of the responding services (n = 42), 57% indicated they do not own an oscillometry device, 41% indicated they do own a device and one service responded unsure. For the services who own an oscillometry device (n =17), 47% own a forced oscillation technique (FOT) device,

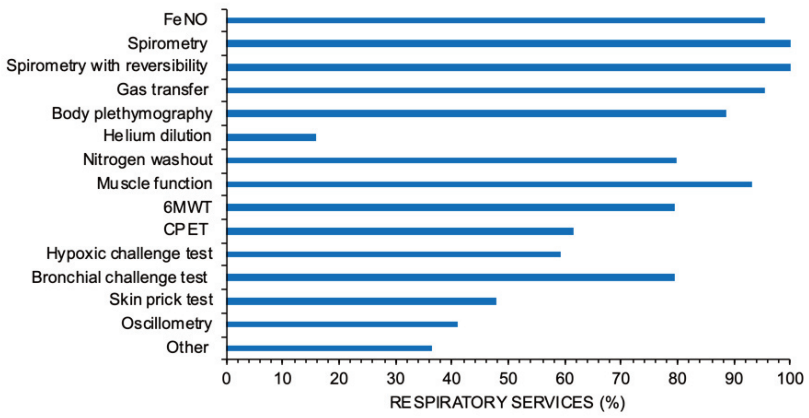

Figure 1: Percentage of respiratory services performing given lung function tests. FeNO, fractional exhaled nitric oxide; 6MWT, six minute walk test; CPET, cardio-pulmonary exercise test

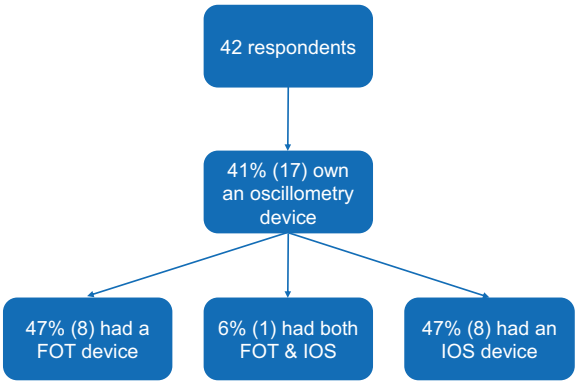

Figure 2: Prevalence of oscillometry and type of device used.

47% own an impulse oscillometry (IOS) device and one service own both. All FOT devices were ResMon Pro (RESTECH) and all IOS devices were Vyntus IOS (Vyaire). One service also reported using Tremoflo (Thorasys) in addition to their Vyntus IOS. On average oscillometry devices were reportedly owned for 3.5 years, ranging from 1 to 7 years. 94% report currently using their device and one service reports having never used it.

Indications to use

For the services currently using their device (n = 16), 50% are secondary care services and 44% are tertiary care/specialist centres. 69% of services are predominately using their device for clinical testing, 6% for research and 19% for both clinical testing and research. 'Other' was reported as being background testing for physiologists.

For the services using oscillometry in clinical practice (n = 14), 57% test on adults, 21% on paediatrics, and 21% on both. All services reported using oscillometry for patients with asthma, with other indications including COPD (57%), bronchiectasis (43%), interstitial lung disease (ILD; 21%), cystic fibrosis (CF; 29%), lung cancer (14%) and other (29%). 'Other' responses (29%) included preschool wheeze, small airways disease, early lung disease, lung transplant, obstructive sleep apnoea (OSA) and inducible laryngeal obstruction (ILO). The primary reasons for using oscillometry included for patients unable to perform technically acceptable spirometry (86%), reversibility testing (21%) and bronchial challenge testing (7%). For one service, oscillometry is performed only if spirometry is normal. For the 64% who responded 'other', the primary indication reported was for asthma work ups/clinics with some mention of small airway assessment and upper airway obstruction.

Technical considerations – testing protocols and procedures

Oscillometry is reportedly performed by respiratory physiologists, including trainees (88%), clinical scientists, including trainees (88%), senior respiratory physiologists (82%) and in one service a respiratory nurse. Professional qualifications successfully obtained by staff members performing oscillometry included; scientist training programme (STP; 82%), practitioner training programme (PTP; 47%), ARTP Practitioner (77%), ARTP Associate (47%), ARTP Part 1 (77%), ARTP Part 2 (71%), ARTP Spirometry (41%) and other (18%). 'Other' responses included STP and PTP equivalence.

For the services who currently use oscillometry (n = 16), 77% reported always performing oscillometry prior to spirometry. The primary reasons indicated for responding 'no' were only when spirometry is not possible or when only oscillometry is being performed. All services reported performing a minimum of 3 trials and obtaining 3 trials with a within-session coefficient of variability (CoV) of Rrs, at the lowest oscillation frequency of less than or equal to 10% in adults or 15% in paediatrics, as per the recommendations from the ERS Technical Standards (2020) paper1. 71% of services predominantly perform oscillometry with the patients' hands placed on their own cheeks, whilst 24% perform with the operators (i.e. physiologist or technician) hands placed on the patients' cheeks. For the 13% responding 'other', these are reportedly performed with the parent's hands placed on the patient's cheeks in paediatric patients. The majority reported not performing SVCs during oscillometry (65%), citing that these are performed during spirometry. 35% of services reported regularly using a biological control (BioQC) subject as recommended in the ERS technical standards (2020) paper. Of those that do, responses included at least monthly, once per week, 3 members of staff once per week, and every time the device is used.

Reporting results

47% of oscillometry users included the following in their technical report: device manufacturer,

number of trials performed and reported and the Z filter. 35% included the device make and model, 59% included CoV (%) and none included whether cheek support was used. 39% did not include any of the above mentioned. 'Other' included the generated ResMon report. Figure 3 shows the oscillometry measurements reportedly included in a report.

The primary reported measurements discussed in a clinical report were Rrs 5 Hz (71%), Rrs 20 Hz (53%), R5-20 (47%), Xrs 5 (59%) and AX (41%). For the services using oscillometry (n = 16), 94% reported referring to z-scores; 53% for FOT vs 47% for IOS, and 56% reported referring to %predicted; 44% for FOT and 56% for IOS. 'Other' included absolute values. 31% of respondents were unsure of the published reference values used for their oscillometry device with a further 19% reporting either the standard Vyaire or ResMon option and 25% using Oostveen et al, 2013. Dellaca et al, 2004, Calagero 2013, Jagger 1994 and Vogel/Smith 1994 were also reported.

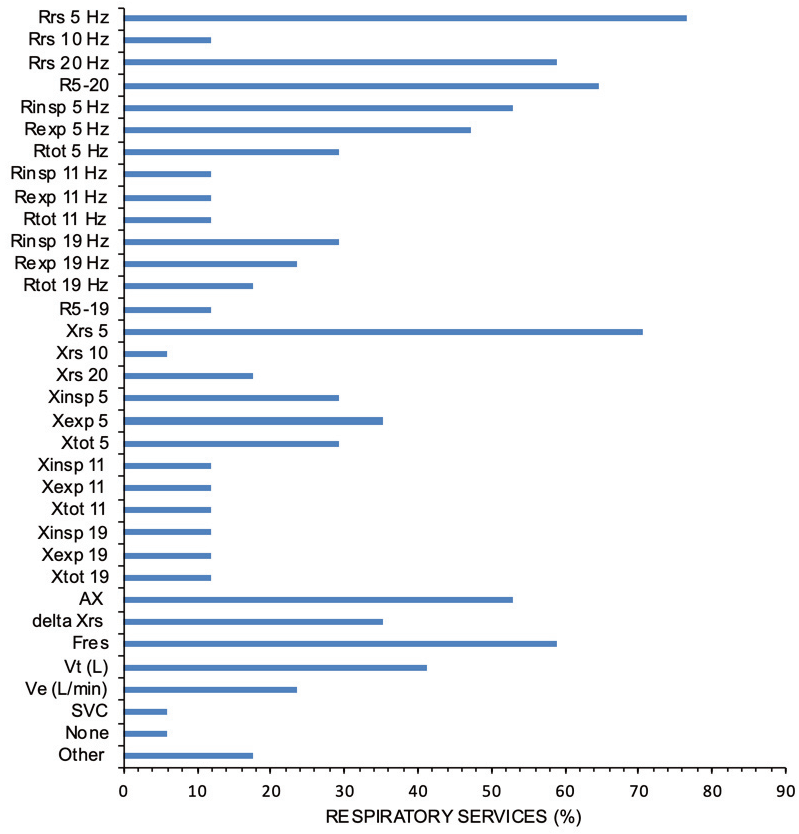

Figure 3: Oscillometry measurements included in a report. Rrs, resistance; Xrs, reactance; AX, area of reactance; Fres, resonance frequency; Vt, tidal volume; Ve, minute ventilation; insp, inspiration; exp, expiration; tot, total.

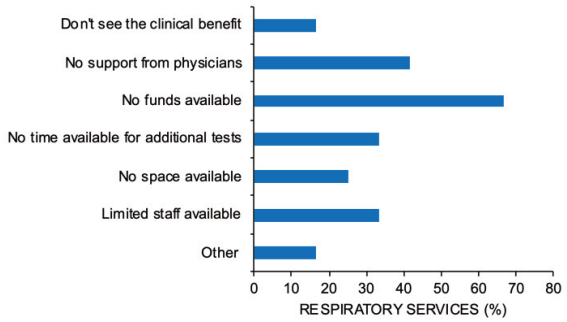

Figure 4: Barriers to adoption of oscillometry within respiratory service

Barriers to adoption

For the services currently without a device (n = 24), 50% indicated they would consider purchasing one within the next five years. Figure 4 displays the barriers to adoption reported by the 50% of services who would not consider purchasing an oscillometry device within the next 5 years. 'Other' included no clinical demand.

Training and education

10% of respondents perceived respiratory consultants' understanding of oscillometry to be 'none', 86% to be 'little' and only 5% to be adept. Figure 5 displays this for those with and without FOT/IOS. 26% of respondents reported their perceptions of respiratory consultants understanding to be consistent from one consultant to another, with the remaining 74% being varied. Key themes were identified from the free text comments: knowledge, awareness, training and interest, or lack of, were the primary factors influencing the perceptions of respiratory consultants' understanding of oscillometry.

48% of survey respondents reported having had formal

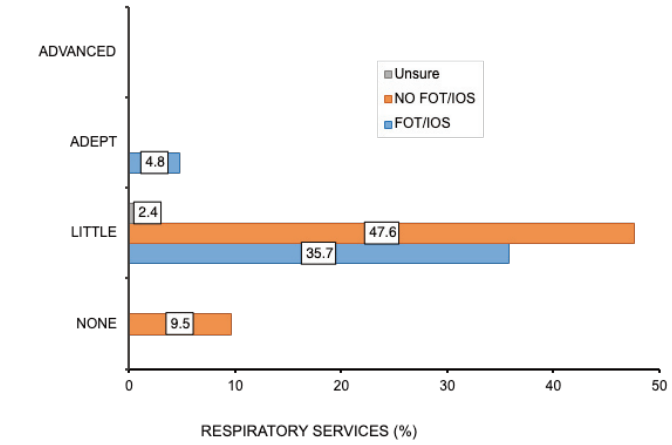

Figure 5: Perceived level of respiratory consultants understanding on oscillometry for services with and without FOT/IOS.

training on oscillometry from the manufacturer. 95% of respondents reported a publication from the ARTP, outlining the benefits/limitations and/or guidance on reporting, would be beneficial. Understanding, guidance, usefulness, education, funding, standardisation and promotion were key themes identified from free text comments.

Summary

Oscillometry is being used within 17 of the 42 responding respiratory services in the UK, 14 of whom use it for clinical testing, and predominately for patients with asthma and those who cannot perform technically acceptable spirometry.

Oscillometry is generally being performed according to recommendations, but with some differences in cheek support and inclusion of SVC measurements. The primary parameters being reported include Rrs 5 Hz, Xrs 5, resonance frequency, area of reactance (AX), Rrs 20 Hz and R5-R20.

For the respiratory services without an oscillometry device, half would consider purchasing one within the next 5 years, with lack of funding being the key barrier for those that would not.

The next step is to liaise with the ARTP and discuss supporting the potential development of a guidance document for oscillometry testing with the hope to standardise its use across the UK and improve the understanding for the wider respiratory community.

Acknowledgements

Thank you to the physiology departments who submitted their response and contributed to the survey.

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Grow Your Own Physiologist: An In-House Trainee's Journey Through Respiratory and Sleep Diagnostics

Emily Spridgens
Clinical Respiratory Physiologist at the Royal Derby Hospital

Academic Background and Early Interests

I graduated from Loughborough University in 2019 with a degree in Sport and Exercise Science. During my studies, I developed a strong interest in the scientific principles underpinning human physiology; however, I was uncertain about pursuing a career focused solely on elite athletes.

Following graduation, I worked as a personal care assistant, which deepened my passion for supporting public health and patient care. After three years in this role, I sought to transition into a more science-oriented field.

Beginning my Career in Respiratory Physiology

I started working at the Royal Derby Hospital in August 2023 as a Trainee Clinical Respiratory Physiologist. During this time, I needed to complete in-house competencies in a variety of tests and procedures including:

- Spirometry
- Gas transfer testing
- Static lung volumes
- Capillary blood gas sampling
- 6-Minute walk tests
- CPAP therapy set-ups and compliance monitoring

ARTP Qualifications and Development

As a trainee at University Hospitals of Derby and Burton (UHDB), I began by shadowing experienced physiologists before gradually performing tests under supervision. Each test required 10 signed-off competencies to ensure proficiency. Topic tests were also performed to ensure complete understanding of the tests. I was also fortunate to shadow other specialities within Clinical Measurement, which included Cardiology and Vascular physiologists. It was inspiring to see the variety of tests within one department.

In April 2024, I enrolled in the ARTP CPAP Associate Certificate; a programme designed to demonstrate competency in delivering CPAP therapy for patients with sleep-disordered breathing. This qualification required the production of a detailed portfolio over a six-month period, demonstrating a variety of areas from machine setup to compliance data analysis. I successfully completed this certificate in December 2024 and through this, I gained a deep understanding of quality assurance, infection control, and therapy optimisation.

During December 2024, I had the privilege of attending the ARTP Research Course, led by James Stockley and featuring key speakers from a range of research disciplines, each bringing a wealth of expertise. I found Adrian Kendrick's presentation on selecting research topics and developing scientific protocols particularly inspiring. Looking ahead, I hope to contribute to the field through active involvement in research.

Alongside the CPAP certificate I was working towards the ARTP Practitioner Qualification, requiring extensive competency signoffs across a variety of respiratory conditions and patient presentations. After the Individual Record of Clinical Practice (IRCP) submission and multiple

choice and practical examination completion, I was proud to receive confirmation of passing this qualification in February 2025. Obtaining this certificate has allowed me to demonstrate a nationally recognised standard of competency within respiratory physiology and promotes consistency and quality assurance within my role.

In May 2025, I was fortunate enough to attend the ARTP 2025 Conference. The conference provided valuable networking opportunities and offered inspiration through exposure to current and emerging research in the fields of respiratory and sleep medicine. Additionally, I had the chance to explore a wide range of industry exhibitors showcasing their products and services. From innovative sleep diagnostic equipment to advanced respiratory testing equipment, I was able to deepen my understanding of available technologies and their applications in clinical practice.

Additional Responsibilities

Beyond my clinical responsibilities, I have taken on the role of Sustainability Champion within my department. In this capacity, my colleagues and I have identified opportunities to reduce waste and costs. In 2024, we implemented a transition from a single-use plastic product used in respiratory testing to a paper-based alternative, resulting in a cost saving of £1,306 per annum and a reduction of over 50% in carbon emissions associated with transportation and incineration. I had the pleasure of presenting these findings to fellow delegates at the ARTP 2025 Conference in Glasgow. This experience significantly enhanced my confidence in public speaking and, I hope, encouraged others in the field to explore sustainable changes within their own practices.

Future sustainability initiatives may include switching to rechargeable batteries, introducing washable sleep study chest straps, and laminating instruction sheets to minimize printing costs. Additionally, I am now a member of the ARTP Sustainability Taskforce, which is working towards making respiratory diagnostics more environmentally sustainable, including the development of a national inhaler recycling scheme.

Another notable achievement during my time at UHDB, has been charity fundraising. In the summer of 2024, I helped organize an 80s-themed fundraising event, raising over £1,000 for our department. These funds will be used to purchase a set of wheelchair-accessible scales, enhancing accessibility for our patients. Last year, I took part in the Pretty Muddy 5km obstacle course to raise funds for Cancer Research UK, alongside colleagues from Derby Hospital. This year, we are continuing our efforts by participating in the Cancer Research Big Hike - a 10km challenge through the Peak District. I feel incredibly fortunate to work with such inspiring colleagues who dedicate their time outside of work to support a vital cause while also strengthening the camaraderie and team spirit within our department.

Expanding Expertise and Specialist Training

This role has allowed me to cultivate a broad range of scientific and clinical skills while integrating my interest in sustainability into impactful projects. I am keen to continue developing my expertise, with a particular focus on cardiopulmonary exercise testing (CPET) and respiratory muscle pressure assessment, to further advance my contribution to respiratory physiology. I have recently begun learning the fundamentals of electrocardiogram (ECG) acquisition and interpretation, with the aim of undertaking the Foundation Certificate in Essential ECG Interpretation later this year. I believe that building a solid foundation in cardiology will be essential for progressing in CPET assessment.

If you have an interest in science or are a recent graduate still exploring career options, I would highly encourage you to consider a career as a respiratory physiologist - it's a rewarding and impactful role that combines clinical practice with continual learning and the opportunity to make a real difference in patients' lives.

FRESH AIR

Edited by **Dr Samantha Irvine**
ARTP Chair of Research and Innovation

Dear Reader,

Welcome back to Fresh Air. These articles are designed to communicate novel trends in research, innovation and clinical practice from both respiratory and sleep sciences. Our aim is to provoke thought and conversation within the ARTP community that we hope will benefit the future direction of physiological practice.

Evaluating the diagnostic accuracy of smartphone video clips against polysomnography for paediatric obstructive sleep apnoea

This article of a summary by Cal McLean, of his recently published article in Archives of disease in childhood. Cal has 12 years' experience in respiratory and sleep. He is a Registered Polysomnographic Technologist (RPSGT) and completed the STP programme in 2020 at Bristol Royal Infirmary. He has a special interest in paediatric sleep and currently leads the Paediatric Sleep and Respiratory Physiology Service at Imperial College Healthcare Trust after moving from a similar role at Bristol Children's Hospital 3 years ago.

Introduction

Obstructive Sleep Apnoea Syndrome (OSAS) in children is defined by repeated episodes of partial (hypopnoea) or complete (apnoea) collapse of the pharyngeal airway during sleep. These episodes result in reduced oxygen saturation, elevated carbon dioxide levels, and/or brief awakenings, all of which disrupt normal sleep architecture[1] This interruption in both gas exchange and restorative sleep can significantly affect cardiovascular and central nervous system function, contribute to growth delays and nocturnal enuresis, and negatively impact overall quality of life.[2] The estimated prevalence of paediatric OSAS ranges from 1.2% to 5.7%.[3]

A definitive diagnosis and assessment of OSAS severity in children requires objective testing using either a Cardiorespiratory Sleep Study or polysomnography (PSG) [4]. These tests involve overnight monitoring, where various physiological parameters are recorded using non-invasive sensors applied by trained healthcare professionals. These diagnostic procedures are both time-consuming and expensive. Additionally, younger children may struggle to tolerate the testing environment, leading to higher rates of study failure. As a result, there is a growing need for simpler, more accessible methods to screen for paediatric OSAS.

An increasing number of parents now share smartphone video recordings of their child's sleep with clinicians to highlight concerns about abnormal breathing patterns. These home videos often capture key signs and symptoms indicative of OSAS, which may help predict the presence of the disorder. As such, sleep video clips could serve as a useful tool for initial risk stratification of patients being considered for formal physiological sleep investigation.

Methods

111 children aged 2–12 years referred for suspected OSAS at Imperial College Healthcare NHS Trust's Paediatric Sleep and Respiratory Medicine Department were prospectively

recruited. Exclusion criteria included those with tracheostomy and those requiring nocturnal ventilatory support. Participants underwent attended overnight PSG using the NOXmedical A1 device. PSG was scored to American Academy of Sleep Medicine Standards by a Registered Polysomnographic Technologist (RPSGT) and Clinical Scientist.

Parents were instructed to record two one-minute videos on the night of the PSG. They were also asked to repeat this process on two separate nights at home during the following week. Detailed guidance on how to capture the videos was provided in an informational leaflet:

- Record when you think your child's breathing is at its worst
- Record the head, neck and naked upper torso
- Record with enough light to see your child's breathing
- Record while your child is lying flat (do not use extra pillows)
- Please record this video for 1 minute from the front
- Please record this video for 1 minute from the side

Parents were contacted after videos were received to enquire if they were able to capture the worst of their child's breathing during sleep.

Videosomnography Analysis for Paediatric Sleep Apnoea (VAPS) is a 9-point scoring system of behaviours seen on audio/video recordings that are indicative of OSAS (Table 1).

A paediatric sleep physician reviewed each video and scored the presence or absence of specific behaviours, resulting in a total score out of 9. An independent sleep physiologist also evaluated the videos using the same method to assess inter-scorer reliability. Both scorers were blinded to the PSG results and the participants' clinical information. The Mann-Whitney test was used to compare VAPS scores to OSAS group. The $\chi 2$ test was used to compare categorical variables such as the presence of behaviours against OSAS. Spearman correlation was used to compare lab and home video scores. The kappa statistic was used to compare agreement between scorers.

Table 1: Videosomnography Analysis for Paediatric Sleep Apnoea (VAPS)

Behaviour	Yes/No
Snoring: The presence of any sounds	
Loud volume snoring: The presence of any snore sounds significantly louder than the patients typical inspiratory and expiratory noise	
Choking sound: The presence of any obstructive inspiratory or expiratory noise that is not considered to be a snore	
Suspected obstructive apnoea: Continued abdominal and thoracic movements with no audible or visible evidence of airflow lasting at least two breaths OR periods of quiet overcome by a gasp	
Abnormal head and neck posture: Sleeping with the neck hyperextended	
Abnormal sleep posture: For example: prone position, sleeping sitting upright	
Mouth breathing: Breathing with the mouth visibly open	
Abnormal movement: Sudden, large body movements preceded by snoring, choking sounds or suspected apnoea	
Increased work of breathing: The presence of any accessory muscle use, see-saw respiration, head bobbing or trachael tug	
Total score	**/ 9**

Receiver operating characteristic (ROC) curves were used to assess optimal cut-off scores to distinguish between the absence and presence of clinically significant OSAS.

Results and Discussion

Participants were divided into two groups: Clinically significant and clinically non-significant OSA. Clinically significant OSAS was defined as ≥5.0 events/hour, as this is the threshold at which ENT intervention is typically deemed necessary.[4] Table 2 shows the demographic data key outcomes of both groups.

The clinically significant OSAS group had a median VAPS score of 6 (range: 1–9), while the clinically non-significant OSAS group had a median score of 2 (range: 0–8). The distribution of VAPS scores for both groups is shown in Figure 1.

Agreement between the two VAPS scorers ranged from 66 – 89% and Kappa statistics ranged from 0.37 (fair agreement) to 0.68 (substantial agreement) for individual questions.

FRESH AIR

Table 2: Demographics and key polysomnography outcomes for clinically significant OSAS versus clinically non-significant OSAS groups

	Clinically non-significant OSAS (n=63)	Clinically significant OSAS (n=48)
Male:Female	36:27	27:21
Age median	5 years (range 2-12)	5 years (range 2-12)
BMI centile median	61st (range 2.7-98)	64th (range 0.2-99)
OAHI median	0.7 events per hour (range 0-4.9)	10.4 events per hour (range 5.1-136.6)
OD13 median	1.6 events per hour (range 0-13.8)	9.1 events per hour (range 2.7-133)

BMI, body mass index; OAHI, Obstructive Apnoea Hypopnoea Index; OD13, ≥3% Oxygen Desaturation Index; OSAS, obstructive sleep apnoea syndrome

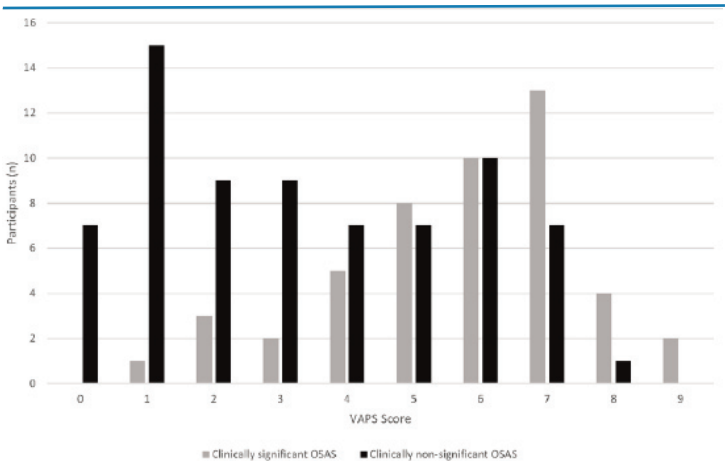

Figure 1: Distribution of Videosomnography Analysis for Paediatric Sleep Apnoea (VAPS) scores for the clinically non-significant and clinically significant obstructive sleep apnoea syndrome (OSAS) groups.

For participants with VAPS scores of ≥3, sensitivity was high at 92%, (specificity 49%). For those with scores of ≥7, specificity increased to 89% (sensitivity 40%).

A subset analysis was done on 55 participants who answered "yes" to the question, "Do you think you were able to capture some of the worst of your child's breathing on video?"

Of this subset, 30/55 were in the clinically significant OSAS group. There was a significant difference in video scores between the two groups when parents did not report capturing their child's worst breathing ($p = 0.011$). However, this difference was even stronger when parents reported they had captured the worst breathing ($p < 0.0001$).

For this subset, the total video score effectively distinguished between clinically significant and non-significant OSAS, with an area under the ROC curve of 85.45% (95% CI: 75%–96%).

Using the same cut-offs for this group, a score of ≥3 had a sensitivity of 96% (specificity 44%), while a score of ≥7 had a specificity of 89% (sensitivity 50%).

The VAPS score demonstrated good predictive power for the presence or absence of moderate or severe OSAS. The VAPS tool may therefore help to risk stratify patients into three distinct groups:

Patients with a score of ≤2 are low risk and could be managed conservatively.

Patients with a score of ≥7 are considered high risk for clinically significant OSAS and therefore be prioritised.

A middle group scoring between 3 and 6 that would still require a sleep study for the diagnosis or exclusion of OSAS.

These two threshold scores could be used in conjunction with current screening methods to better stratify patients for OSAS risk and better allocate paediatric sleep physiology resources.

You can find the full article published in the Archives of Disease in Childhood: https://adc.bmj.com/content/early/2025/06/12/archdischild-2024-327775.abstract

The research team would like to thank the children and their families who participated in the study as well as the staff at Imperial College Healthcare NHS Trust who helped facilitate the polysomnography sleep studies and Imperial Health Charity that helped to fund the project.

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Lab in the Limelight

Melissa Traynor
Lead Respiratory Physiologist

Armagh & Dungannon GP Federation Early Respiratory Diagnostics Mobile Unit

Patrice Maginn Project Manager Southern GP Federation, Robin Swann Former Health Minister For NI, Dr Deirdre Cleary GP Lead and Deputy Chair of the Southern GP Federation, Alison Rooney Operations Manager Southern GP Federation
Launch Day with the Health Minister for NI Robin Swann MP.

Hello!

We are the Armagh and Dungannon GP Federation Early Respiratory Diagnostics team - a group of professionals from diverse backgrounds and roles united by a shared vision - to improve access to timely respiratory diagnostics locally. Together, we have developed and launched a fully mobile lung function service to serve the Armagh and Dungannon area of Northern Ireland. Our team includes an operations manager, clinical manager, GP lead, lead respiratory physiologist and administrative staff.

In May 2024, we introduced Northern Ireland's first Early Respiratory Diagnostics Project: a fully mobile, advanced lung function laboratory led by a respiratory physiologist in primary care. This service supports 22 GP practices across rural Armagh and Dungannon, a region with a population of approximately 80,000.

The Need for Change

When we launched the mobile lung function service, it was evident that urgent action was required. Our region ranks 208th out of 217 in the UK for respiratory admissions and mortality. Notably, the rate of respiratory admissions in the most deprived areas is nearly double that of the least deprived areas, as highlighted in the Department of Health NI's Health Inequalities Report 2024[1]. —an alarming statistic that highlights the significant respiratory health challenges we face.

The project's primary objective is to *improve respiratory outcomes in the Armagh and*

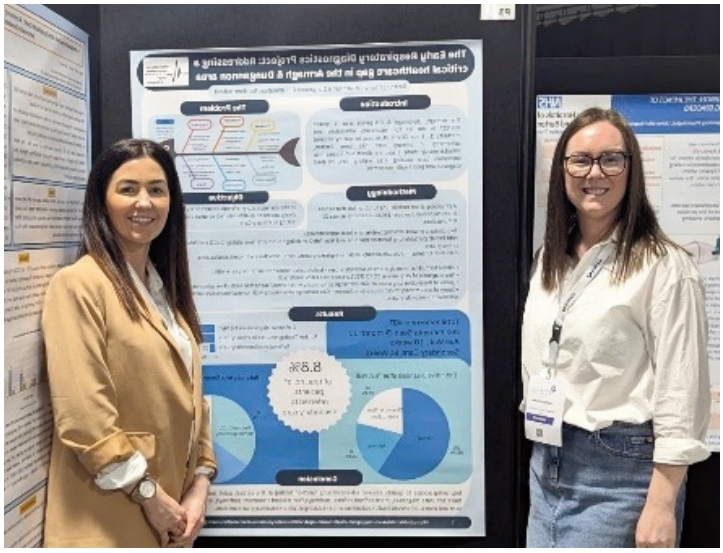
Dungannon area through access to timely, quality-assured, advanced lung function testing in primary care.

Before this project, patients faced up to 90 weeks wait for diagnostic tests due to backlogs and challenges in primary care predating COVID-19, which were then amplified. Lack of trained staff, deskilling, and obsolete spirometry equipment had created a bottleneck, delaying access to essential diagnostic services and putting vulnerable patients at greater risk.

The Mobile Service in Action

Our mobile service was designed to directly address these issues by bringing advanced diagnostic tools into the community. With tests such as Transfer Factor and FeNO, we can identify and treat conditions like asthma and COPD earlier and more accurately whilst enabling appropriate referrals only to secondary care. This approach has dramatically reduced waiting times and transformed care delivery in the area. Initially there was funding for two days per week, with capacity to see 6 patients per day in hourly slots to allow for set up and take down of the equipment and reporting time. This has just been increased to three clinics per week from July 2025. Patient capacity is also under review with work being done to facilitate more appointments for FeNO alone to increase the capacity of patients seen. Implementing change comes with its own challenges, with only one member of staff to run the service and all 22 practices needing to be communicated with to build these templates into their clinical systems. To date there have been approximately 390 patients seen. Currently, only 9% of the patients seen in our clinic are referred to secondary care for further investigation.

Aside from service delivery, another fundamental objective of the project is to reskill the primary care staff that have existing qualifications in spirometry. We are achieving this through regular training, educational roadshows and lunch time information sessions and one to one mentoring. We have also implemented a WhatsApp community for health care professionals that perform spirometry; to improve confidence and communication in an otherwise isolated cohort. A respiratory 'tile' has also been created on the Federation website for easy access to SOPs and quality standards.



Lead Physiologist Melissa Traynor and Clinical Manager Lauren Smith

Meet the Lead Physiologist

My name is Melissa Traynor, and I am the lead respiratory physiologist for this project. My journey began in 2007 when I earned a degree in Physical Activity, Exercise, and Health Science, from John Moore's University Liverpool. I joined the Liverpool Heart and Chest Hospital as an apprentice in respiratory physiology in 2008. There, I gained extensive experience in specialist testing and completed an additional 1ST Class degree in Respiratory Physiology through the City of Westminster College and Middlesex University. I completed my ARTP training in Bristol and gained two Merits in my ARTP Part 1 and Part 2 exams.

In 2012, I returned to Ireland to work as a senior physiologist in the Belfast Trust. In 2020, I sought a new challenge and was successful in a post in the Southern Trust. Then came COVID-19, which changed everything. During the pandemic, our respiratory laboratories were closed due to inadequate facilities, and our team was redeployed to ICU to support the technicians in maintaining ventilators. Despite these challenges, I focused on CPD, attending online courses and ARTP training, gaining two diplomas in Change Management and COPD management.

In 2022, I secured a part-time lecturing role at Ulster University on the Healthcare Science degree. It was during this time, while

working clinically and in the University, that I became acutely aware of the disconnect between primary and secondary care in respiratory diagnostics. The closure of both labs because of COVID had huge implications for the already long waiting lists and primary care had ceased all testing due to IPC constraints.

We witnessed first-hand how patients suffered from delays, often waiting years for basic tests like spirometry or FeNO. Meanwhile, we were rejecting GP referrals for spirometry because such tests should have been conducted in primary care.

In 2024, I completed a Diploma in Change Management with The Kings Fund Change Academy. I also completed a diploma in COPD management to further my knowledge in COPD. In autumn 2025 I hope to complete a Diploma in Asthma management.

Drawing on my experiences in Liverpool, where we ran a successful mobile spirometry outreach model, myself and a specialist respiratory primary care nurse pitched the idea of a mobile lung function service to the Armagh and Dungannon Federation. In February 2024, I was thrilled to join the Armagh and Dungannon Federation to roll out this mobile service.

Making a Difference

Our mobile clinic bridges a critical healthcare gap, addressing delays in respiratory diagnostics and placing patients at the centre of care by bringing the services to them. While there's more to be done, our efforts are already transforming outcomes in a region that has long struggled with a gross lack of funding and poor respiratory health.

Beyond our immediate area, the Strategic Planning and Performance Group (SPPG) is using our project to inform the Respiratory Framework for Northern Ireland that is under review. It's gratifying to know that our work could help shape the future of respiratory diagnostics across the country, with respiratory physiologists at the forefront.

Looking Ahead

This project is the culmination of years of experience, collaborative ideas, learning, and passion for respiratory care. We are confident in our ability to prove the concept of this project within the next two years. With the Regional work ongoing in parallel, we foresee being able to bid for appropriate funding from the Department of Health and expand this project across all seventeen GP Federations in Northern Ireland. This would include employing additional respiratory physiologists to meet the growing demand.

We aspire to pave the way for more career opportunities for respiratory physiologists throughout the region, whilst providing quality assured, accurate diagnostic testing for our patients in the heart of their communities.

Reference

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Impact of Community Diagnostic Centres (CDCs): Reducing waiting times and improving access

Joe Hallas

University Hospitals of Derby and Burton NHS Trust

Abstract

The Community Diagnostic Centres (CDC) programme was introduced in July 2021 to improve accessibility for patients. This article explores the impact that CDCs have had on the accessibility of treatments, specifically in the cardio-respiratory pathway at University Hospitals of Derby and Burton (UHDB). Since the introduction of the CDC programme, including prior to the launch of CDC facilities within this Trust (starting in 2023), waiting lists have decreased. Data indicates a significant reduction in waiting times for several key tests, supporting the programme's effectiveness. Although the extent of the impact CDCs have had on combating health inequalities is unclear.

Introduction

The Community Diagnostic Centres (CDC) programme in England was launched in July 2021. The goal was clear - to improve diagnostic services, reduce pressure on hospitals, provide more convenient access to tests for patients, and combat health inequalities[1]. CDCs enable diagnostic tests to be performed closer to home and away from acute hospitals. As of September 2024, these centres have delivered over 9 million tests, checks, and scans[2]. This article will examine the impact these centres have had on the accessibility of treatments in England, including decreased waiting times and smaller waiting lists through increased resources. This analysis concentrates on the UHDB NHS Trust Clinical Measurement Department (CMD), using data which has been collected from internal resources.

Clinical Measurement Department (CMD)

UHDB operates two CDC sites based within Florence Nightingale Community Hospital (FNCH) and Ilkeston Hospital. A third site, Sir Robert Peel Community Hospital, is also awaiting its opening. Ilkeston was opened on the 6th October 2023 whilst FNCH was opened on 23rd July 2024. In 2022, before the opening of the CDCs, the waiting list for the CMD department had 3,212 patients on it for the following tests - echocardiogram, tapes, spider flash, spirometry, gas transfer, Overnight pulse oximetry (PO), Cardio-Respiratory Sleep Studies (CRSS), and FeNO. The most recent data from February 2025 shows that this had fallen to 975, less than a third of its original level. This indicates a dramatic improvement in the waiting lists since the introduction of the CDCs.

Respiratory - Indirect Impacts: CDC Funding and Resources

Over the past two years, there has been significant progress in reducing waiting times for spirometry across the service, including prior to the opening of these CDCs. At its peak in June 2023, which was when extra resources were delivered, the spirometry waiting list stood at 225 patients, with the average wait of approximately 9 weeks. By September 2023 this was reduced to 48 patients. Whilst this improvement occurred before the opening of the CDCs and therefore not a direct consequence, the improvement can still be attributed to CDCs since the additional funding, resources, and staff were provided for the CDC initiative which were utilised at the acute hospital sites before the CDCs opened. Also, at this time, additional overtime availability was advertised to help combat the waiting list.

However, there are limitations to the impact that the CDC funding and resources have when used in the acute hospital setting. One of the goals of CDCs was to improve access and bring diagnostic services closer to disadvantaged areas by adding additional clinics in more convenient areas for patients, closer to their homes. Therefore, increased funding and resources alone will not have the desired impact unless supported by measures that tackle the deeper issues, such as reduced travel, limited parking spaces and access[3]. CDCs may struggle to reduce health inequalities as intended. Therefore, it remains debatable whether the reduction in waiting lists associated with CDCs at this time constitutes a genuine success for CDCs since it occurs outside the designated settings.

Post CDC: Waiting Times

The waiting times as of August 2023 (pre CDC) and most recently (post CDC) are displayed in figure 1. They show a considerable reduction in lung function tests with sleep studies relatively unchanged.

This has been achieved by the increase in activity since the opening of the CDCs. Ilkeston currently performs 6 spirometry and 12 gas transfer tests per week. Additionally, FNCH performs 21 gas transfer, 7 FeNO, 14 spirometry, 2 CBG, and 25 sleep studies weekly. This highlights that CDCs can significantly increase the testing capacity which allows for patients to be treated faster.

It also means the outpatient sleep studies tests have stayed within the DM01 criteria which is an additional benefit of the increased CDC funding as it helps to tackle and reduced the number of UHDB breaches. DM01 is the system used by the NHS to track how fast key diagnostic tests are delivered - so no breaches occur. Patients referred for DM01-reportable tests must be seen within six weeks, and waiting longer constitutes a breach of the national standard. NHS aims for less than 1% of patients to breach the 6-week standard[4].

The substantial reduction in waiting times, particularly for spirometry and gas transfer, highlights the positive impact that the CDCs have had. These improvements suggest that patients can access diagnostic tests and begin treatment quicker than previously, thereby supporting the aim of the CDC programme.

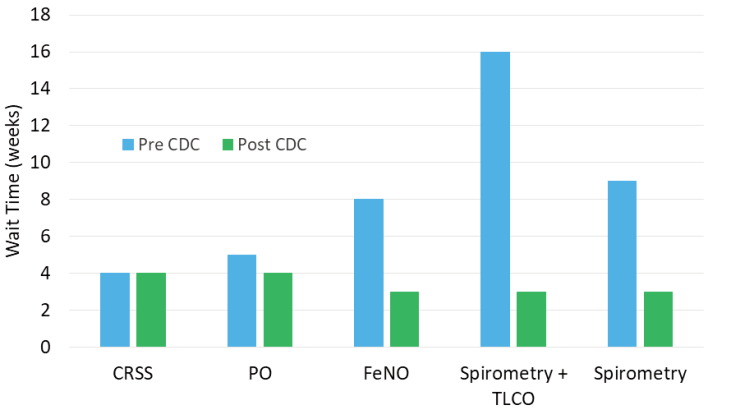

Figure 1. UHDB waiting times for respiratory physiology

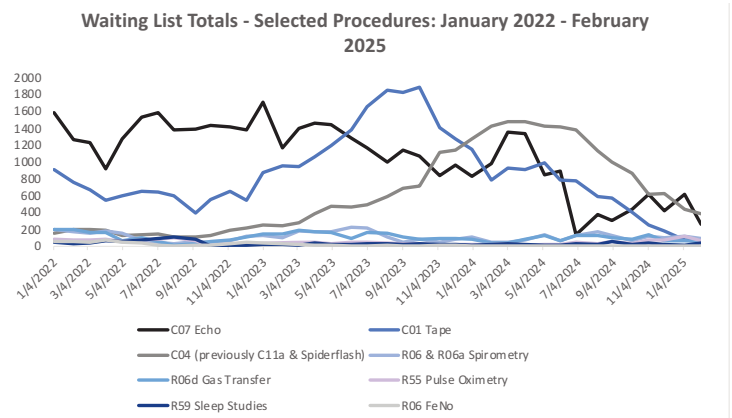

Figure 2. UHDB CMD waiting lists 2022-2025

Post CDC: Waiting Lists

The data trend shows that since the implementation of the CDCs, whether because of the additional resources being used at the acute hospital setting or at the CDCs themselves, the waiting list is more controlled than previously, as shown in Figure 2.

When the FNCH site first opened (end of July 2024), the gas transfer waiting list for Derby, FNCH and Ilkeston was 129 (as seen in figure 2); as of February 2025, it has dropped to 51. At the same time, the spirometry waiting list fell from 168 to 91. The FeNO waiting list has stayed predominantly in single figures. Whilst sleep studies peaked in January 2025, it had almost halved by February 2025 to 64. This is possible due to the increased activity as a result of the CDC programme.

Despite this progress, the waiting lists over the past two years have been inconsistent for both spirometry and gas transfer, as they are influenced by the time of year (e.g. increased sickness in winter[5]) and urgent referral volume, as these appointments are expedited and can delay routine appointments, thus affecting the waiting list numbers. Furthermore, as highlighted by P. Sivey and J. Wen, more test availability can mean heightened demand for tests from both patients and GPs[6]. Hence, focusing on the size of the waiting list alone may not reflect the extent of the impact on accessibility which CDCs have had.

Next Steps

To further enhance the CDCs ability to help combat the health inequalities, new pathways should be developed. One potential

pathway is paediatric testing which is currently being assessed at UHDB. CDCs offer many benefits for paediatric testing. CDCs can provide a 'calmer, more relaxed setting[7] which can mitigate hospital anxiety. Consideration should be made to the environment, ensuring that, from a child's perspective, this is relaxing and not stress-inducing, for example through the inclusion of toys and play materials[8].

Furthermore, since CDCs aim to be closer to patients, the potential disruption caused by traveling for diagnostic testing/ medical visits could be reduced. This is particularly important in paediatric cases, where minimising time out of school is a priority for the development of the children.

Conclusion

CDCs have improved waiting times and overall patient access. In the space of three years, waiting lists have decreased in CMD from 3,212 to 975 patients waiting for tests. Whether related directly to the CDCs or because of the wider impact these have had on staffing and resources, CDCs have benefited patients and NHS services. The NHS now has additional capacity to complete more tests by having increased both equipment and staff. Furthermore, for tests such as spirometry and gas transfer, the waiting time has also significantly improved, meaning patients are being seen faster than previously, which can contribute to patients having swifter diagnoses. Whilst CDCs have reduced some waiting times and waiting lists, a limitation of the current research is that it remains unclear whether the CDCs have successfully aided in reducing health inequalities. To strengthen the analysis, it may be beneficial to consider the impact of CDCs from the patient perspective, including whether patient experiences support the quantitative data. This data would be particularly pertinent when considering whether testing has become more convenient and fairer. Nevertheless, CDCs could serve as a useful tool in helping combat health inequalities. Future efforts should be placed on developments such as establishing paediatric pathways as a way to broaden its reach.

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50 years and still going...

Trefor Watts

Trefor is former Principal Physiologist of Walsall NHS Hospitals Trust. As you will learn from this article, he has a wealth of experience in the Healthcare science discipline. This article details his diverse journey into respiratory and gives an overview of his 50 year NHS career from being a trainee through to clinical lead in home oxygen service in his semi-retirement. Well done Trefor!

On 2nd September 2025 I will have worked continuously in the NHS for 50 years and I still love it. During this time I have seen fantastic developments in technology (although sometimes the journey was not easy), the birth of IT bringing ultimate sophistication and ease of use, the changing role of healthcare scientists and finally the change and ongoing challenges of a modern NHS. Here is my story.

How my journey in healthcare began

So, to the beginning; much to my parents' amazement I not only passed my 11 plus examination I also gained entry to a very good grammar school and was put into the top form. As my secretaries would agree, it was not the English paper but the mathematics which got the good result. My school life was relatively uneventful and I managed to have no detentions during the 7 years, which only happened as the day the whole school received detention; I was off sick!!! Out of the approximately 100 pupils per year only 2 did not go into the 6th form but I was the only one who did not want to go to university after A' Levels.

What I wanted was to enter the healthcare system in a science discipline, but definitely not as a doctor or nurse. I had no idea about the professions in healthcare sciences but because I had a fantastic chemistry teacher and my maths teacher had basically been a chemical engineer, I gravitated to the chemistry profession. I was too late to apply for a training post that year, therefore I obtained a junior post in the new field of Radio Immunoassay (RIA) testing which was initially set up for thyroid function tests. This was attached to a Biochemistry department and part of my role (after some training) was to take blood (venous and capillary) which included bilirubin testing on babies. In those days departments were smaller and less automated so you intermixed with all disciplines and I gained experience in all aspects of pathology including the morgue.

During my time in this area, we developed an early nuclear medicine testing service for tracking haemoglobin levels in various organs. The Consultant Haematologist was very forward thinking and I learnt a lot from him. Within 3 months my department (I was the only one in this subsection) expanded rapidly. We received an automatic testing and measuring system for the RIA testing. This also introduced me to the new field of software development in the NHS. For the nerds of you it was a Wang computer using an assembler type programming language.

The second big development was that the department acquired a Nuclear Medicine Gamma Camera much to the annoyance of the Radiology department. I remember being trained by the supplier just before Christmas and during one of these sessions, the Respiratory Consultant (more of him later) brought a colleague from America to see the service. We spent about 15 minutes talking as he had to move on but he said he would

return later which he did and spent at least 2 hours with me explaining the quality issues of getting the best scans with the equipment. What I did not know at the time was that this person was a Professor of Nuclear Medicine from Johns Hopkins University Hospital USA.

Another big thing in my first year was the link with the Respiratory Physiology Department. Both of us were single handed departments and we needed to support each other for certain procedures. I therefore gained an introduction and training into Physiology Sciences.

This meant that in the first year of my NHS career, I worked in all three healthcare science disciplines.

My unintended road into respiratory

I applied to the West Midlands Regional Training programme in Medical Physics and Physiological Measurement (MPPM) and was successful in obtaining one of the six posts that year on the higher national certificate (HNC) programme. The course programme was interesting, starting in September the period up to Christmas was a series of eight one-week attachments in various departments (Medical Physics – Nuclear Medicine, Radiotherapy, EBME, and Radiation Safety; Physiological Measurement - Respiratory, Cardiology Neurophysiology and Audiology). At the end of this period students had to select either Medical Physics or Physiological Measurement. I along with 5 of the 6 trainees chose the Medical Physics option. For the remainder of the first year, I rotated through the various departments and completed a log-book of training. For the second year I chose Nuclear Medicine as I loved direct patient contact areas and also computing. During the two years, there were four seven-week blocks at Lanchester Polytechnic (now Coventry University). I was also fortunate to learn aspects, not included in the training manual, from two respected clinicians. I developed my skills at reporting Nuclear Medicine scans along other techniques including X-rays, ultrasound and blood tests and again computer programming this time using Fortran. I also spent four weeks in Southampton in a similar department which was run by Radiology and had one of the first CT scanners in the country.

As we approached the end of the training I applied for posts and my first experience of poor manpower planning in the NHS occurred. There were not five posts in the region despite there being five new trainees, and due to personal circumstances, my options were very limited. Fortunately, I had experience in Respiratory Physiology so returned to my first hospital replacing the person who had trained me two years earlier.

The Respiratory Physiology department had one other member of staff who was trained in animal physiology, so with my physics and his physiology knowledge we formed a strong partnership. The Consultant in charge of the department was the same one who introduced me to the Nuclear Medicine professor whom he had met whilst on a scholarship in the USA where he had worked with one of the fathers of modern respiratory physiology. Together we started a long-term quest to raise the standards and range of investigations performed.

Development of the respiratory service

It soon became apparent to me that the service was going to expand rapidly and the only way to ensure more staff was to ‘get into’ training. This was the beginning of a long and fruitful experience of developing others. Also, the hospital appointed a new Cardiologist at this time and it was decided to amalgamate 3 small departments (Respiratory, Cardiology and Neurophysiology) into one which we named Clinical Measurement Unit (CMU).

The other development I needed to get to grips with was a new software system called

MUMPS (Massachusetts Utility Multiple Programming System). Although not well known, it was very efficient at data storage and was used by Banks at the time. Initially we used it to develop a lung function reporting system which with the brilliant input from the consultant was probably the first detailed full lung function computer generated reporting system available. It remained in operation until I left in 2017 (Its main drawback was that the early versions did not have many mathematical functions; so back to first principles which included writing software to calculate log functions by a successive approximation method.)

This became a very busy time for me, the notable main points:

- Gained HNC in Computer Science
- Gained training and verification awards
- Lectured on Respiratory Physiology at the local BTEC College
- Was put in charge of the CMU
- Started to develop my management training

By the end of the 1980s, the department had grown in staff numbers and number of rooms to cater for all the procedures done. I also came into contact with a new Head of Department in Birmingham named Susan Hill. During that decade we developed a regional MPPM group and later a separate regional Physiological Measurement Group which led to the development of a method to categorise activity within all four main physiological measurement fields.

What an early start to my career! I had worked in all three main areas of Healthcare Science and in a number of different departments and types of hospitals. Was I a Universal Healthcare Scientist?

So where would my career go from here? I think I can divide it into at least five areas and in no particular order as they were all interlinked.

Climbing the managerial ladder

An interesting area was at the request of a consultant and following discussions with the hospital management I set up a company to undertake testing on private patients. In the beginning I had a partner (head of cardiology) whose husband was a company secretary and provided invaluable advice on what was required. The reason for doing this was that there was always an issue with private patients using NHS appointment slots. The contract with the hospital required patients to be tested outside NHS hours and also, meant I must carry separate liability insurance. The hospital would receive a percentage of the fees charged, with the staff undertaking the tests receiving greater than NHS rates and the remaining was used to cover costs. Over the next 30 years the activity increased and the company was recognised by over 30 private insurance organisations.

As I mentioned earlier, like all heads of departments, I had started to develop my managerial skills. My hospital became a First Wave Acute Hospital Trust in 1990 which was the beginning of a journey of local interdependence for hospitals. We had a very good Chair, Chief Executive and other members of the senior management team who believed in developing its staff. As part of this it introduced a management development programme underpinned by management qualification. After two years I was selected to be one of the remaining ten who would be part funded to undertake the MBA year.

By this time, I had already been asked to take over responsibility for other clinical services (Physiotherapy, Occupational Health, Dietetics, Dental laboratory and Medical Photography) reporting directly to the Medical Director. This was my first fascinating experience of understanding how such departments were motivated which is completely different to Healthcare Science.

As part of being sponsored through the MBA programme I joined a group of senior

managers who 'ran' the hospital out of hours and only involved the Director on Call if necessary. This was both a frightening and exciting time. I learnt how to deal with all types of staff, with incidents such as fire, sectioning patients under the Mental Health Act initially and dealing with the police, who wanted to arrest someone on the ward on one occasion.

I had also caught the eye of probably the best Nurse Director I have ever met and with her mentoring I was immersed into the world of patient safety and other quality issues. I joined her on a Kings Fund Organisational Audit of another hospital (forerunner of the CQC inspections) prior to our trust being inspected. During our inspection I accompanied the visiting CEO member of that team on the visit to our hospital, making sure he was kept on time and at times dealt with some interesting questions.

Maintaining my clinical skills

Later on in my career I was faced with a difficult decision: either to carry on down the management role or to remain as a clinician. At this point I was given the best advice I had ever received from a consultant (also Deputy Medical Director) which was 'do not lose your clinical role'. I also realised I loved patient contact and helping to improve their life, and further management development would remove this. Therefore I managed to negotiate a job description which stated I did 50% clinical work.

This did not stop my management work. Two things I am particularly proud of were, firstly the formation of a Clinical Service Directorate which also included Imaging, Pathology and Pharmacy which gained recognition from the Trust Board and had a place on the Trust Executive Board. The other was working with Finance and Coding to ensure that when the diagnostic Payment by Results (PbR) was introduced the Trust could maximise its income.

ARTP/RCCP involvement

My interaction with the ARTP had begun with my link with Sue Hill and due to my passion for training and developing I gravitated to Education. It was at this point on a wet and cold January morning at Derby Railway station I met a certain individual called Adrian Kendrick (not Doctor yet). This began a period of mutual respect for our very different skills. My favourite story is when a registrar came into my office and started talking about a lecture he had seen on dynamic hyperinflation. He didn't seem to grasp the concept fully so I asked him who gave the lecture and he said a small man with a funny bow tie. Well, that can only be one person, so I emailed him and within 5 minutes I had his lecture slides and was able to explain to the doctor his misunderstanding.

During my ARTP education period (which has not ended yet) I was part of developing the ARTP part 1 and 2 examinations, the Modernising Scientific Sciences (MSC) programme which included the new degree and Masters programmes and also the development of the Apprenticeship programmes. I learnt a lot from our academic colleagues over the years on how different individuals learn and also how courses are developed and monitored.

One of Sue Hill's early developments within the West Midlands was the formation of the Registration Council for Clinical Physiology (RCCP) which had two aims: firstly, to bring together the large number of relatively small physiological measurement professions which would support the need for statutory regulation. My interaction with RCCP initially was as ARTP representative on the Professional Body and Education Committee (PBEC), and later I became its chair which meant I joined the Board and lastly as Chair of RCCP just before I partially retired from the NHS. It soon became clear that the government was not interested in adding to the list of statutory professions and the next

crucial step was to gain Accredited Voluntary Regulation status which we did within 6 months. Interestingly the road became a different one with the introduction of the MSc/Clinical Scientist status and with the equivalence scheme for other clinicians with experience.

Development of services

So, what about my clinical career? Due to my experience I continued to develop the department in all three areas, introducing many new techniques. At this point I should mention our manufacturing colleagues who have always been very helpful and knowledgeable. My first interaction was with Phillip Morgan who as some of you will know was a lung function technician in his earlier days. He had a small engineering team around him but I remember mostly Kevin Hogben and a certain new engineering apprentice called Tim Newby now of DeVilbiss fame. Philip took me under his wing and explained the basis of the techniques and more importantly the equipment limitations which was very useful when I was developing Exercise Testing. He was also very open about issues within the company and I think I was someone independent he could talk to. Talking of Suppliers I must own up that it was I who examined Adrian Fineberg for his ARTP part I award. Back to management, my favourite management concept was developed by Deming who amongst his 14 principles of management included that user and supplier have to work together long term to achieve optimal results. This has been my philosophy throughout my career.

I also got involved in the Lung Function Quality programme within the West Midlands. Following three different ten-year regional audits of all lung function departments we were able to set standards and show a significant improvement in test result accuracy. This work led to the ARTP standards and then to ERS/ATS guidance and a recognition of UK services. It also introduced me to Dr Martin Miller, who initially came to assess one of my trainees for the ARTP part I. He was reading a book on Fluid mechanics whilst waiting in the staff room. I could not understand the mathematical principles on page one, however he was able to explain it in more basic terms and how it affected all the measurements we make.

The penultimate proud achievement I have is the introduction of the first full multidisciplinary pulmonary rehabilitation programme in the West Midlands. I was asked to lead this due to my previous involvement with physiotherapy and although I was a non-believer at first, by the time the first cohort had completed, I became an advocate of such interventions. A proud moment for me was when Professor Mike Morgan (the father of Pulmonary Rehab in the UK) came along to give a talk to the local GPs and clinicians and he started off by stating he did not know why he was there as I was in the audience.

Training the workforce

Another proud achievement I will take to my grave is the development of trainees who have come through my department or come into contact with me through the various courses and examinations. The majority have impressed me with their skills. I remember a young Joanna Shakespeare starting her career at UHB, a certain Julie Lloyd who was one of my first trainees, a young Brendan Cooper who I met for the first time when I went to assess one of his trainees in Nottingham and another trainee of mine, Peter Moxon, who sadly passed away recently. There are many others who are now department leads, one of whom, while I was lecturing his class on the TLCO derivation, I realised I was leading to a question that I was not sure of the answer. The question concerned why the time between tests was so long. So, I set it as

homework and he was the only one to come back with the correct answer which I of course had looked up as well. This goes to show you never know everything and over the years students have taught me things and kept me alert.

I worked out that over the years I had a different boss on average once every year (40 in total) and mostly they were good. The early ones definitely taught me a lot about working in the NHS. Later on, I was generally left alone as I met the targets.

The greatest thing I am proud of is my team at Walsall, which grew from two to over thirty. A number moved on and have become heads of services in their own right, a number remained with me for a long period. They understood my philosophy of quality and service to the patient. Thank you to all of them.

Semi-retirement

And, so to the later stages of my career at Walsall. I continued to have a multi-faceted role intermixing clinical, training and managerial activities on a local, regional and national footing. Unfortunately, I could not continue to undertake all the procedures I had in the past which in addition to the Respiratory Physiology Disciplines also included Echocardiography, Nerve Conduction Studies and Urodynamics. I also realised that Respiratory Physiology had expanded greatly therefore I could not keep up my competencies only working 50% of the time clinically. I therefore decided to concentrate on Home Oxygen Therapy as it combines both the patient contact, technology and the feeling of helping others.

Since entering semi-retirement, I continued my role in RCCP until the end of my term, continued to work with ARTP in Education and also as part of their COVID group and finally the role of West Midlands Clinical Lead for Home Oxygen. This was a really interesting change to my previous roles. Firstly, it was a collaborative role funded by all the commissioners in the West Midlands, I had no staff to manage but a lot of people I had to engage with. I had to significantly up-skill my knowledge of paediatrics. I love supporting other clinicians (predominantly doctors, nurses and scientists) to deliver a high-quality service to the patients and reducing the risks to this group of patients.

Some advice for young trainees

So how to end this article. I have already stated how much I have loved my career- what would I say to the young ones of today?

Firstly, make sure you have an interest in what you are doing. Not all of us want patient interaction but all can have an input.

Secondly, do not reject any opportunity out of hand, as a scientist you should evaluate the pros and cons and make your own decision. Personally, I have only rejected a few opportunities put to me.

Thirdly, have your own standards and stick to them unless you see the need to change.

Finally, remember who is the most important person. It is the patient who is relying on you to do a brilliant job and help them.

Getting to know your ARTP committee chairs

Who am I?

I am a Clinical Scientist working at the IQIPS accredited Respiratory and Sleep Sciences Department, University Hospital Coventry and Warwickshire NHS Trust. I have over 15 year's clinical experience and am currently enrolled on the Higher Specialist Scientist Training (HSST) Programme. My clinical specialisms include acute and long-term ventilation and exercise induced laryngeal obstruction (EILO).

My academic interests include the development of respiratory failure in motor neurone disease (MND) and weaning patients from acute non-invasive ventilation (NIV). I am a champion of advanced clinical practice within Respiratory Healthcare Sciences and part of the Mary Seacole NHS Leadership Alumni.

A bit about me

I am a keen sports person and enjoy competing in both running and triathlon events.

What would you like to achieve in your role?

I am keen to develop platforms that share best practice and clinical skills including courses, skills labs and forums for both sleep and non-invasive ventilation. As always, I am a champion of advanced clinical practice in respiratory and sleep healthcare sciences.

Introducing ARTP Board Members

Shirley Coelho – ARTP Sleep Vice Chair

Who am I?

I'm a Clinical Scientist and the Lead for the Sleep Service at Hereford County Hospital, part of Wye Valley NHS Trust. Since joining the Trust, I've been on a mission to grow our department into a well-oiled machine—delivering high-quality care and a full range of sleep investigations across Herefordshire and a good chunk of Powys. Working in a smaller Trust definitely keeps me on my toes! While sleep is my main thing (according to my JD), I also dip into all things respiratory, I love a good CPET!

Outside of the hospital, I lecture part-time at Swansea University and was recently awarded a Fellowship of the Higher Education Academy (HEA). I also wear the hat of Lead Assessment Content Editor for Respiratory and Sleep Science at the NSHCS. Because I clearly don't like a quiet life, I volunteer with the AHCS assessing PTP and STP equivalence portfolios, and I maintain links with the University of the West of England in Bristol.

A bit about me

I am a USA born, Portuguese raised, UK living woman, who loves to travel and eat. Especially eating... this is where my money goes. I've moved around a lot, and I've somehow managed a 12-year relationship with my work and a 10-year relationship with the most patient man on earth.

As you've probably guessed by now, I like to keep busy. My hobbies are as varied as my career. I always say I'm not an expert in anything, but I'm joyfully average at everything—from amateur dramatics to playing left wing for Westfields FC. If it sounds fun, I've probably tried it—or still do!

What would you like to achieve in your new role?

As Vice-Chair of the ARTP Sleep Committee, I want to raise the profile of our profession and make sure sleep medicine doesn't get left behind. My goal is to champion recognised training in sleep physiology and help develop practical tools that can be used in day-to-day clinical practice. Basically, I want to make it easier for others to do the brilliant work they're already doing - louder, prouder, and with proper recognition.

Who am I?

I am a clinical scientist based at Wye Valley NHS Trust in Herefordshire and have been working in Respiratory and Sleep for 10 years. I completed my undergraduate degree and MSc in Sport and Exercise Science, before completing the STP at Royal Papworth Hospital. I moved out West a few years ago to try to help develop the team and service in the beautiful Wye Valley. I work across both Respiratory and Sleep, and dabble in a bit of everything from lung function, exercise testing, scientist led clinics, ventilation and sleep.

A bit about me

I am an enthusiastic individual that enjoys bringing out the best in people. I like to help them achieve their academic and educational goals by supporting them through either apprenticeships of various levels, PTP and STP.

I am a great baker, puzzle maker and booty shaker (you will find me on the dance floor at ARTP conference). I love a good book and being surrounded by people that challenge me.

What would you like to achieve in your new role?

Spirometry plays a key role in the diagnosis and management of patients and I am keen to ensure everyone has access to quality assured diagnostic spirometry in both primary and secondary care. I am looking forward to working with ARTPs different healthcare partners to help people be confident in delivering this service across the NHS.

Who am I?

I am lead CPET physiologist at Cambridge University Hospitals and have been working in the field for 10 years now. Following my undergraduate degree in sport and exercise science I joined Royal Papworth Hospital where, under the supervision of Dr Karl Sylvester and the team, completed my ARTP practitioner exam. Following a spell working as a locum travelling the country and working with some fantastic physiologists ended up back in Cambridge and into my current role; leading a very busy CPET service. Through my experiences at CUH I have been invited onto the UCLA CPET course as a faculty member.

A bit about me

I have been involved in spirometry training and examinations in varying formats for the last 5 years which led to me joining the spirometry committee.

I am a sociable and good-humoured person and this is why I believe one of the best things about being a physiologist is getting to meet and help lots of different people each day.

Away from work I am a dad of three and enjoy watching any sport that is available and am often found picking myself up after yet another Norwich City loss. A sure-fire way to lose 30 minutes of your time is strike up a conversation about football or my beloved Norfolk.

What would you like to achieve in your new role?

Having seen the enormous progress of the spirometry competency programme over the last few years, and a huge surge in primary care practitioners joining the spirometry register, I am committed to continue its development to help improve the quality of spirometry across the various stages of healthcare.

I feel very proud to be part of the ARTP spirometry committee and would like to continue to strengthen the relationships between ARTP and external healthcare organisations.

ON THE BLOWER

Paul Burns
ARTP INSPIRE Editor

Sefam Medical Ltd

Sefam Medical UK is pleased to announce the expansion of its UK team, reflecting our continued commitment to supporting NHS sleep services and improving patient outcomes across the country.
We've recently welcomed three new team members:

1. **Nathan** joins us to support sales and account management in the North of England. With a background in Sports and Exercise Science, he brings strong analytical skills and a collaborative approach to clinician support.
2. **Tom**, based in the South West, brings a degree in Applied Medical Sciences and hands-on experience in healthcare. His focus is on helping clinicians implement Sefam's innovative sleep solutions.
3. **Rehan**, covering London and the South East, joins from the UK Institute for Research and Innovation, where he supported grant delivery. With a degree in Biomedical Sciences, Rehan is focused on building partnerships with NHS services and supporting the roll-out of CPAP and diagnostic devices.

We're excited about the knowledge, energy, and fresh perspective each of them brings to the Sefam UK team. **You can meet the whole team at sefam-uk.co.uk/about-sefam-medical-uk**

Introducing Matthew Nicholls

The team at Stowood is growing and we are delighted to introduce our new Business Development Manager for the North of the UK. It's been six months since Matthew joined us and in that short time, he's brought not just decades of physiological expertise, but also a healthy dose of humour, energy, and musical talent. With 27 years of experience as a physiologist, Matthew truly understands what clinicians and physiologists need from diagnostic equipment. Now on the commercial side of things, he's helping us shape our sleep diagnostics solutions to meet real-world clinical challenges with practical insight and purpose.

Outside of work, Matthew keeps things moving – literally. He's a keen cyclist (you may spot him whizzing by in lycra), has been a two time national powerlifting Champion and World Champion, and unwinds by playing the guitar and annoying the neighbours with his drums. We like to think of him as part scientist, part rock star, part mountain goat. Friendly, knowledgeable, and always up for a chat (especially about sleep, bikes, or bass lines), Matthew has quickly become a valued part of the Stowood family and, we hope, a familiar face to many of you in the ARTP community.
Have a question, or fancy a chat? Call Matthew on: 01865 358860

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SLEEP TECHNOLOGY

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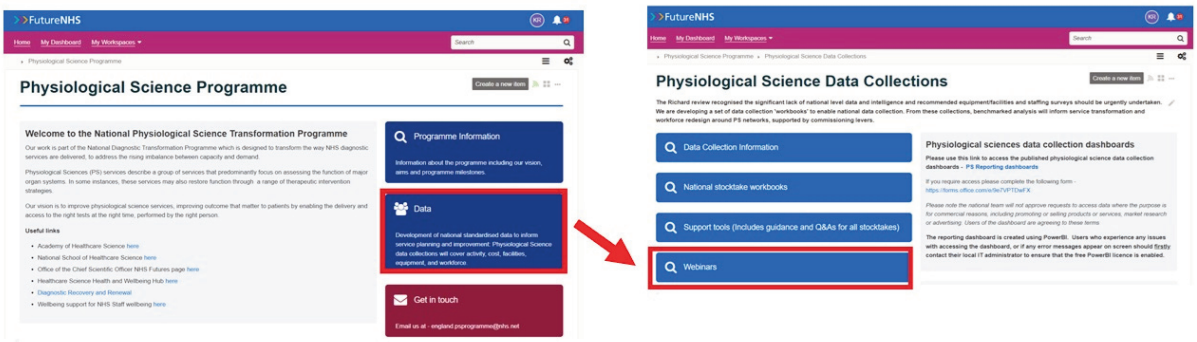
- Cardio-respiratory polygraphy
- Polysomnogrpahy with video
- Visi-Download and SleepWorks software

Contact us on: 01865 358860 sales@stowood.com

NHS England

On Thursday 15th May, the NHS England national physiological science programme team hosted a webinar to share some key analysis areas from the latest national respiratory and sleep data collection.

You can access the webinar recording from the data section within our FutureNHS Collaboration Platform - Physiological Science Programme - FutureNHS Collaboration Platform



Our physiological science dashboard can be accessed from here – Physiological science national data collections reporting dashboard

If you would like to request access to view our dashboard, please complete this form – Dashboard access form

For queries relating to your access please firstly contact your organisations IT team to ensure power BI is enabled. If you're still having problems, please contact – karen.richardson51@nhs.net. Please make sure to send screenshots of any error messages that appear on screen

Best wishes
Karen Richardson
Project Manager – Physiological Sciences
National Diagnostics Transformation Programme NHS England
Email – karen.richardson51@nhs.net
Team Email - england.psprogramme@nhs.net

Inspire Sleep Apnea Innovation

For sufferers of moderate to severe obstructive sleep apnoea (OSA) who struggle with the established therapy with continuous positive airway pressure (CPAP) machines, there has been no effective alternative. But, a new sleep surgery therapy to implant a small device that stimulates the tongue nerve to open up a patient's airway offers new hope, and is being made available in more hospitals in England.

Top UK sleep surgeon Ryan Cheong said: "We're seeing patients having the surgery with no long term complications and after a few months enjoying a therapy that's effective in controlling their OSA. Extending this therapy to many more hospitals is going to answer a currently untapped need."

Read the press release below and if you would like to know more about this treatment please do get in touch.

More NHS Hospitals in England Choose Inspire Therapy for OSA Patients
Hospitals in London, the Southeast, Northwest & West Midlands to set up implantation centres to treat CPAP-intolerant OSA patients.

LONDON – May 8, 2025 - Inspire Medical Systems Europe GmbH, a medical technology company focused on the development of innovative, minimally invasive solutions for obstructive sleep apnoea, today announced eight major NHS hospitals in England are on course to offer its innovative neurostimulator implant treatment to patients this year. This therapy provides a safe and effective alternative for moderate to severe OSA patients who cannot tolerate using continuous positive airway pressure (CPAP) therapies.

Inspire™ implant is an MRI* compatible neurostimulator implant that is placed in the body through two small incisions. It synchronises with the patient's breathing during sleep and uses gentle pulses to move their tongue out of the airway so they can sleep soundly.

Since 2014 more than 100,000 patients worldwide and including a growing number of British OSA sufferers have benefitted from Inspire therapy, reducing their AHI (Apnoea-Hypopnea Index)1 and improving their quality of life2,3.

The first British patients to use Inspire implants to address their OSA were treated in Guys and St Thomas's hospital in London. Inspire will now be available in an additional seven NHS England hospitals where patients will be able to be referred for the treatment in 2025:

- Great Ormond Street Hospital, London
- Imperial College Healthcare, London
- University College London Hospitals
- Barking, Havering and Redbridge University Hospitals, Essex
- Queen Victoria hospital, East Grinstead, Sussex
- Birmingham University hospitals
- Manchester University hospitals

Patients may be eligible to be referred to treatment at these hospitals if they have moderate to **severe OSA (AHI 15-65 with <25% central or mixed apnoea)**, are unable to tolerate CPAP and are not significantly obese **(BMI < 35 kg/m^2)**. Inspire should only be offered after CPAP has been tried and the patient has been unable to tolerate it. The cost of the Inspire implant is reimbursable by the NHS.

Ryan Cheong, a Consultant ENT and sub-specialist Sleep Surgeon at University College London Hospital, said: “Inspire therapy is a proven treatment. With it, we’re seeing patients having the surgery with no long term complications and after a few months enjoying a therapy that’s effective in controlling their OSA. Extending this therapy to many more hospitals is going to answer a currently untapped need.”

Commenting on how availability of the treatment is being extended in England, Dr. Thilo Tuebler, Medical Director at Inspire Medical Europe said: “Reaching a new milestone for access to our therapy is testament to how well we are partnering with the NHS in England and ENT and respiratory teams in NHS hospitals to build awareness and familiarity with the therapy. They know that there is a gap for a safe and effective option for OSA patients who cannot tolerate CPAP. It is great that we are able to work with teams of hospitals respiratory, ENT and sleep specialist clinicians to offer our innovative treatment.”

About Inspire Medical Systems Europe GmbH

Inspire is a medical technology company focused on the development and commercialization of innovative, minimally invasive solutions for patients with obstructive sleep apnea. Inspire’s proprietary Inspire therapy is the first FDA, EU MDR, and PDMA-approved neurostimulation technology that provides a safe and effective treatment for moderate to severe obstructive sleep apnea.

For additional information about Inspire in the UK, please visit https://www.inspiresleep.co.uk/home/

Disclosure

Mr. Ryan Chin Taw Cheong is a substantive Consultant ENT and Specialist Sleep Surgeon at the world leading Royal National ENT and Eastman Dental Hospitals, University College London Hospitals NHS Foundation Trust. He is currently the only Consultant ENT Surgeon in the United Kingdom with a full-time NHS practice exclusively in snoring and obstructive sleep apnoea. Contact details: uclh.Referrals.Sleep.RNTNEH@nhs.net

Always speak to your doctor about your treatment options. Individual treatment results may vary. For important information about Inspire therapy and its delivery, risks and safety, visit www.inspiresleep.co.uk/important-safety-information/

*Patients with Inspire™ can have full-body MRI scans performed. For full MRI requirements, warnings, and precautions, please view the “MRI Guidelines for Inspire Therapy” manual at manuals.inspiresleep.com.

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1. Woodson BT, et al. Upper Airway Stimulation for Obstructive Sleep Apnea: 5-Year Outcomes. Otolaryngol Head Neck Surg. 2018 Kim DH, et al. Hypoglossal Nerve Stimulation Effects on Obstructive Sleep Apnea Over Time: A Systematic Review and Meta-analysis. Otolaryngol Head Neck Surg. 2024
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3. Alrubasy WA, et al. Hypoglossal nerve stimulation for obstructive sleep apnea

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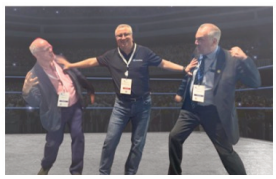

It was another very busy and enjoyable ARTP annual conference in Glasgow. In a departure from the norm and as part of our continued mission for innovation, we focused on the global launch of comPAS™.

Our aim is to focus on helping our customers identify future readiness and apply critical thinking to shaping service delivery, rather than simply replacing like for like. comPAS by Vitalograph is a Pulmonary Assessment System of interdependent solutions that provide comprehensive respiratory diagnostics for every aspect of pulmonary function testing, interpretating, and reporting. Integral to this is our focus on what PFT means to everyone involved in respiratory diagnostic services. To us, it is Patient Focus Time – providing solutions that enable healthcare professionals to focus on their patients rather than their devices.

Conference Workshops

Adrian Fineberg, EVP PFT Solutions had the unenviable task of moderator to two leaders in the respiratory diagnostic field during our workshop on *To box or not to box? That is the lung volume question*. Professor Brendan Cooper and Dr Adrian Kendrick led an engaging session exploring the pros and cons of multiple breath nitrogen washout and whole-body plethysmography.

The workshop struck a balance between informative discussion and light-hearted interaction, creating a welcoming environment for open discussion. Owing to popularity, the workshop was oversubscribed, and unfortunately, we were unable to accommodate everyone who wished to attend.

We would also like to extend a warm thank you to all those who made the effort to attend our breakfast workshop - the launch of our latest respiratory diagnostic solution – the VitaloXRT. We appreciate how engaged and enthusiastic all the delegates were, as we uncovered the benefits of our CPET solution within comPAS.

To discover more about the Vitalograph's respiratory diagnostic solutions, and to discuss your PFT needs with one of our consultants, please get in touch!

Reach us on 01280 827110 or customersupport@vitalograph.co.uk

We look forward to your feedback of **"On the Blower"** and the issues we have presented. We want the MLC to be your voice and to help us pursue projects and taskforces that affect your service and patients. We look forward to hearing your responses via our ARTP Watchdog link on the website.

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