SUMMER MEETING 2022

British Thoracic Society

Final Programme

THURSDAY 23RD AND FRIDAY 24TH JUNE

MANCHESTER CENTRAL CONVENTION COMPLEX
THE EXCHANGE SUITE, PETERSFIELD, M2 3GX

Conference Information
Speakers' Details
Presentation Summaries
Abstract Prizes

Please see our website: **brit-thoracic.org.uk**

Better lung health for all

WELCOME TO THE SUMMER MEETING AND WELCOME BACK TO MANCHESTER!

It is my absolute pleasure to welcome you back to Manchester and to this new venue for us, **Manchester Central Convention Complex.** It is three years since our last onsite Summer Meeting and we are really looking forward to seeing everyone!

This year's Summer Meeting is onsite only, we are not offering online content as we are keen to return to the previous strengths of the Meeting, which has historically been about meeting colleagues, sharing experiences and having those one-to-one interactions that we've all missed so much in recent years. BTS continues, however, to provide an extensive programme of education via our Short Courses, the vast majority of which will remain online during 2022.

As always, the Summer Meeting provides a comprehensive, clinically grounded programme, delivering a wide range of topics. I am confident, yet again, that we have a programme that meets the needs of the whole respiratory team.

Highlights this year include:

- **Mini short courses** in chronic breathlessness and complex mycobacterial and fungal cases. Two symposia in each of these topics provide a comprehensive and in-depth clinical learning opportunity.
- **Symposia** in a broad range of topics from asthma to thoracic surgery. To aid trainee delegates, the programme has been mapped to the respiratory curriculum.
- **Abstract Prizes** return, with two exciting categories: "Improving quality in patient care" and "Innovation in respiratory education and training". With these Abstract Prizes, we aim to highlight and share the excellent and successful work we know is being undertaken in respiratory medicine departments across the UK. Following a submission and refereeing process, the short-listed abstracts will be on view in digital format in the exhibition hall. The work will also be presented in two spoken sessions in Exchange Room 11, so please go along and support the authors and share good practice. The digital posters and presentations will be judged on the day and prizes awarded to the overall winners.
- **The Clinical Grand Round** is, as ever, an important part of the programme, where three finalists will battle it out under the scrutiny of a judging panel and audience. Please do support this session, go along and listen to the challenging cases and pose equally challenging questions to the presenters. An overall winner will receive a prestigious and lucrative prize.
- This year's **Guest Lecture** will be given by Professor Wei Shen Lim, Consultant Respiratory Physician and Chair of the COVID-19 Sub-Committee of the Joint Committee on Vaccination and Immunisation. Professor Lim will look at the challenges behind the COVID-19 vaccination programme, the JCVI advice to government and future directions.
- The **Physiology quiz** is always popular and returns in a new format, with digital cases on the new Summer Meeting App and a question-and-answer session in Exchange Room 8-10 on Friday morning.
- **Exhibition** – It feels like a long time since we've been able to mingle around exhibition stands! Make the most of this great opportunity to meet up with industry colleagues and hear directly about the latest pharmaceutical evidence and innovative investigative and therapeutic equipment. Do also stop by the BTS stand, say hello to the team, and use that area to meet fellow professionals, network and share ideas.

All delegates are invited to the **President's Reception** in the conference centre at 6.00pm on Thursday 23rd June, where prizes will be awarded for the Abstract Prizes and Clinical Grand Round.

Make sure you register early; we're expecting our first face-to-face Summer Meeting since 2019 to be hugely popular!

I am certain the programme will contain plenty to interest and stimulate all delegates. We invite all those who deliver care to respiratory patients to attend, learn, discuss and network.

I look forward to seeing you in Manchester and hope that you have a stimulating and enjoyable visit.

Dr Alanna Hare
Chair, BTS Education and Training Committee

@BTSrespiratory @Dr_Allie_Hare
#BTSSummer2022 #RespisBest

THANK YOU

The British Thoracic Society gratefully acknowledges sponsorship from the under listed companies, through the purchase of exhibition space at the Summer Meeting 2022. None of them have had any input into the programme content or the planning of the conference. Furthermore, the Society does not allow any sponsored symposia at this event, within the programme or associated in any way with it:

Abbott Point of Care
APR Medtech
AstraZeneca
Bayer Oncology UK
BD
Boston Scientific
BOWA MEDICAL UK
Broncus Medical Inc /Uptake Medical
Chiesi
Gilead
General Medicine Group
Hunan Vathin Medical Instrument Co Ltd
Insmed
It's Interventional Ltd
Janssen
Respiratory Professional Care
Sandoz

PROGRAMME AT A GLANCE
THURSDAY 23RD JUNE 2022

TIME	DETAILS	LOCATION
8.30am – 9.30am	**Registration and refreshments.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Foyer and Exchange Hall, lower level
9.30am – 11.00am	Year in review	Exchange Auditorium, lower level
9.30am – 11.00am *Slido voting*	Pleural disease management in 2022	Exchange 8-10, upper level
9.30am – 11.00am	MDT models of care: utilising nurses and allied health care professionals	Exchange 11, upper level
11.00am – 11.30am	**Refreshments.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Hall, upper level
11.30am – 1.00pm	Mini short course part 1 – Understanding and approaching the management of chronic breathlessness	Exchange Auditorium, lower level
11.30am – 1.00pm *Slido voting*	Clinical grand round	Exchange 8-10, upper level
11.30am – 1.00pm	Improving the care of patients with lung cancer and pleural disease	Exchange 11, upper level
1.00pm – 2.00pm	**Lunch.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Hall, lower level
2.00pm – 2.30pm	Abstract Prize presentations – Category: Improving quality in patient care	Exchange 11, upper level
2.30pm – 4.00pm	Mini short course part 2 – Understanding and approaching the management of chronic breathlessness	Exchange Auditorium, lower level
2.30pm – 4.00pm *Slido voting*	Steroids in asthma: how much is too much?	Exchange 8-10, upper level
2.30pm – 4.00pm	Rehabilitation in COPD: the bigger picture	Exchange 11, upper level
4.00pm – 4.30pm	**Refreshments.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Hall, lower level
4.30pm – 6.00pm *Slido voting*	Joint BTS/BSTI symposium – Tips and tricks in thoracic radiology	Exchange Auditorium, lower level
4.30pm – 6.00pm *Slido voting*	Treating tobacco dependency and the NHS Long Term Plan – how fantasy becomes reality	Exchange 8-10, upper level
4.30pm – 6.00pm	The ups, downs, swings and roundabouts of remoteness in COPD – lessons for the future after COVID-19	Exchange 11, upper level
6.00pm – 7.00pm	**The BTS President's Reception – All welcome!**	Exchange Hall, lower level

PROGRAMME AT A GLANCE
FRIDAY 24TH JUNE 2022

TIME	DETAILS	LOCATION
8.00am – 8.30am	**Registration and refreshments.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Foyer and Exchange Hall, lower level
8.30am – 10.00am *Slido voting*	Plenty of rheum in ILD: immunomodulation, antibodies and anti-fibrotics	Exchange 8-10, upper level
8.30am – 10.00am	ICU admission: who should be admitted, why and why not?	Exchange Auditorium, lower level
8.30am – 10.00am *Slido voting*	Joint BTS/ARTP symposium – Inside the lung function laboratory	Exchange 11, upper level
10.00am – 10.30am	**Refreshments.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Hall, lower level
10.30am – 12.00pm *Slido voting*	Occupational asthma update – clinical statement and interactive cases	Exchange Auditorium, lower level
10.30am – 11.00am	Abstract Prize presentations – Category: Innovation in respiratory education and training	Exchange 11, upper level
11.05am – 12.00pm	Physiology quiz Q&A session	Exchange 8-10, upper level
12.05pm – 1.00pm	**Guest Lecture – Science and the crystal ball of COVID-19 vaccination** *Including presentation of the Abstract Prize award for "Innovation in respiratory education and training"*	Exchange Auditorium, lower level
1.00pm – 2.00pm	**Lunch.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Hall, lower level
1.20pm – 1.50pm	INSPIRE research network 2022 update	Exchange 11, upper level
2.00pm – 3.30pm *Slido voting*	Mini short course part 1 – Complex mycobacterial and fungal cases	Exchange Auditorium, lower level
2.00pm – 3.30pm *Slido voting*	Dilemmas in the management of acute pulmonary embolism	Exchange 8-10, upper level
2.00pm – 3.30pm *Slido voting*	Lung cancer – future directions in 2030	Exchange 11, Upper Level
3.30pm – 3.45pm	**Refreshments.** Visit the exhibition stands and view the Abstract Prize digital posters. Test yourself with the Physiology Quiz cases on the Summer Meeting App.	Exchange Hall, lower level
3.45pm – 5.15pm *Slido voting*	Mini short course part 2 – Complex mycobacterial and fungal cases	Exchange Auditorium, lower level
3.45pm – 5.15pm *Slido voting*	Avengers assemble: MDT superheroes	Exchange 8-10, upper level
3.45pm – 5.15pm *Slido voting*	Thoracic surgery for respiratory trainees	Exchange 11, upper level

MEETING INFORMATION

THE VENUE

MANCHESTER CENTRAL CONVENTION COMPLEX, THE EXCHANGE SUITE, PETERSFIELD, MANCHESTER, M2 3GX

Manchester Central is in the heart of Manchester. Further information and directions may be found here:

www.manchestercentral.co.uk/getting-here

Please enter Manchester Central via the dedicated EXCHANGE entrance. Registration will be located in the Exchange Foyer, Lower Level.

FACILITIES AT THE VENUE

There is a multi-faith prayer room at the venue, located in the Lower Foyer, ground level. Exchange 4 on the upper level, is a quiet room for nursing mothers.

SECURITY

Please keep valuables with you at all times, especially mobile phones and laptops. Neither BTS nor the venue can be held responsible for the disappearance of personal items while delegates are attending the conference.

CLOAKROOM

A free of charge, staffed cloakroom is available on site. Please note that venue staff search all bags taken into the building.

CONFERENCE SESSIONS

The conference sessions will be held in the Exchange Auditorium on the Lower Level, and in Exchange 8-10 and Exchange 11, both on the Upper Level.

BTS SUMMER MEETING ABSTRACT PRIZES

The Summer Meeting Abstract Prizes have been short-listed in two categories: "Improving quality in patient care" and "Innovation in respiratory education and training". Following a submission and refereeing process, the short-listed abstracts will be on view in digital format in Exchange Hall, the exhibition area on the Lower Level. The work will also be presented in two spoken sessions in Exchange Room 11 (please see pages 12 and 16). The digital posters and presentations will be judged on the day and prizes will be awarded to the overall winners.

EXHIBITION

Please take time to visit the exhibition and charity/association stands located in Exchange Hall. The Society is very grateful to all exhibitors for their sponsorship of the Summer Meeting.

PHYSIOLOGY QUIZ

The Physiology quiz is available in a new format, with digital cases on the Summer Meeting App and a question-and-answer session in Exchange Room 8-10 on Friday morning. The Society is very grateful to Jessica Swan and Mark Unstead from the Royal Berkshire Hospital, Reading, for organising the quiz.

MEET THE BTS TEAM

The BTS stand in Exchange Hall will provide a focal point for delegates to meet, network and share ideas. Members of the BTS and Respiratory Futures teams will be available on the stand during the breaks.

INTERNET ACCESS

Wireless internet access is available free of charge throughout the venue and may be accessed as follows:

- Check your Wi-Fi is on
- Connect to the wireless network named: **_MCCC FREE WIFI**
- The portal page should load automatically
- If not, open your web browser and click: Login to Manchester Central's Free Wi-Fi
- Read and check the box to accept the terms and conditions, then click connect

DIGITAL QUESTIONS – Slido

Each session at the Summer Meeting will include time for questions – both from the floor and via the Slido app. This is an easy-to-use website or app for phones, tablets or laptops. Participants will be able to either ask their own questions via the app, or may vote for the question/s that others have asked and that they would most like answered.

We recommend that you download the app to your phone/tablet before arriving at the venue.

VOTING/POLLING IN SESSIONS

In some sessions, speakers will include questions and scenarios on which delegates may vote. This will also be done via the Slido app. Sessions where polling is included are highlighted in the programme and a participation code will be projected on screen at the start of the session, to enable delegates to join in.

REFRESHMENTS

All refreshment services will be in the exhibition area, Exchange Hall, on the Lower Level.

CONTACT DETAILS IN MANCHESTER

BTS registration desk (22nd to 24th June only): **07920 090 808**

Venue website: **www.manchestercentral.co.uk**

VIRTUAL CONFERENCE BAG

As part of the Society's ambition to be more environmentally-friendly, reduce paper use and wastage, we will not have a printed programme or conference bags full of literature. Instead, please use the Summer Meeting App or visit the BTS website for updates to the programme and other useful information about the Meeting: **www.brit-thoracic.org.uk/education-and-events/summer-meeting**

POSTGRADUATE MEDICAL TRAINING

The BTS Summer Meeting 2022 has been approved by the Federation of the Royal Colleges of Physicians of the UK for 12 category 1 (external) CPD credits (6 per day) with the CPD code: 139060. We will automatically register all eligible delegates for CPD when they pre-register for the Meeting.

NURSING AND MIDWIFERY COUNCIL REVALIDATION

By attending the Summer Meeting, it will be possible for nurses to demonstrate CPD and write reflective accounts to support their revalidation. These relate to the NMC Code for Professional Standards of Practice and Behaviour for Nurses and Midwives, including:

- what you learnt from the sessions;
- how you will change or improve your practice as a result;
- how this is relevant to the Code – prioritising people, practising effectively, preserving safety or promoting professionalism and trust.

A form is available on page 46 of this document:

www.nmc.org.uk/globalassets/sitedocuments/revalidation/how-to-revalidate-booklet.pdf

CHARTERED SOCIETY OF PHYSIOTHERAPISTS CPD

The Summer Meeting should be suitable for inclusion in the portfolios of respiratory physiotherapists, being part of a programme of education offered by the British Thoracic Society. A CPD record form is available via the CSP's Members' Resources section of the CSP website:

www.csp.org.uk/professional-union/careers-development/cpd/csp-eportfolio/my-eportfolio-0/cpd-resources

ATTENDANCE CERTIFICATES

Instructions for generating certificates will be sent to delegates after the event.

CONFERENCE RECEPTION AND AWARD PRESENTATIONS

On Thursday 23rd June from 6.00pm, all participants are warmly invited to join us in the exhibition area for an informal early evening reception with wine, beer, soft drinks and nibbles. Presentations will be made to the finalists participating in the Summer Meeting Abstract Prizes and Clinical Grand Round Competition. The reception will end at approximately 7.00pm to enable participants to enjoy the many restaurants and social activities that Manchester has to offer.

ACCOMMODATION

For last-minute hotel bookings or queries, please contact MICE Concierge:

Website: **miceconciergeme.com/btssummer2022**

Email: **hello@miceconcierge.com**

Tel: **01438 908 770**

TWITTER

Increase your participation by Tweeting about the Summer Meeting using: **#BTSSummer2022**

DATES OF FUTURE BTS MEETINGS

Winter Meeting 2022
23rd to 25th November, London

Summer Meeting 2023
22nd & 23rd June, Manchester

Winter Meeting 2023
22nd to 24th November, London

BTS SHORT COURSE WEDNESDAY 22ND JUNE

ACUTE NON-INVASIVE AND HOME MECHANICAL VENTILATION 2022 (PRACTICAL HANDS-ON SESSIONS)

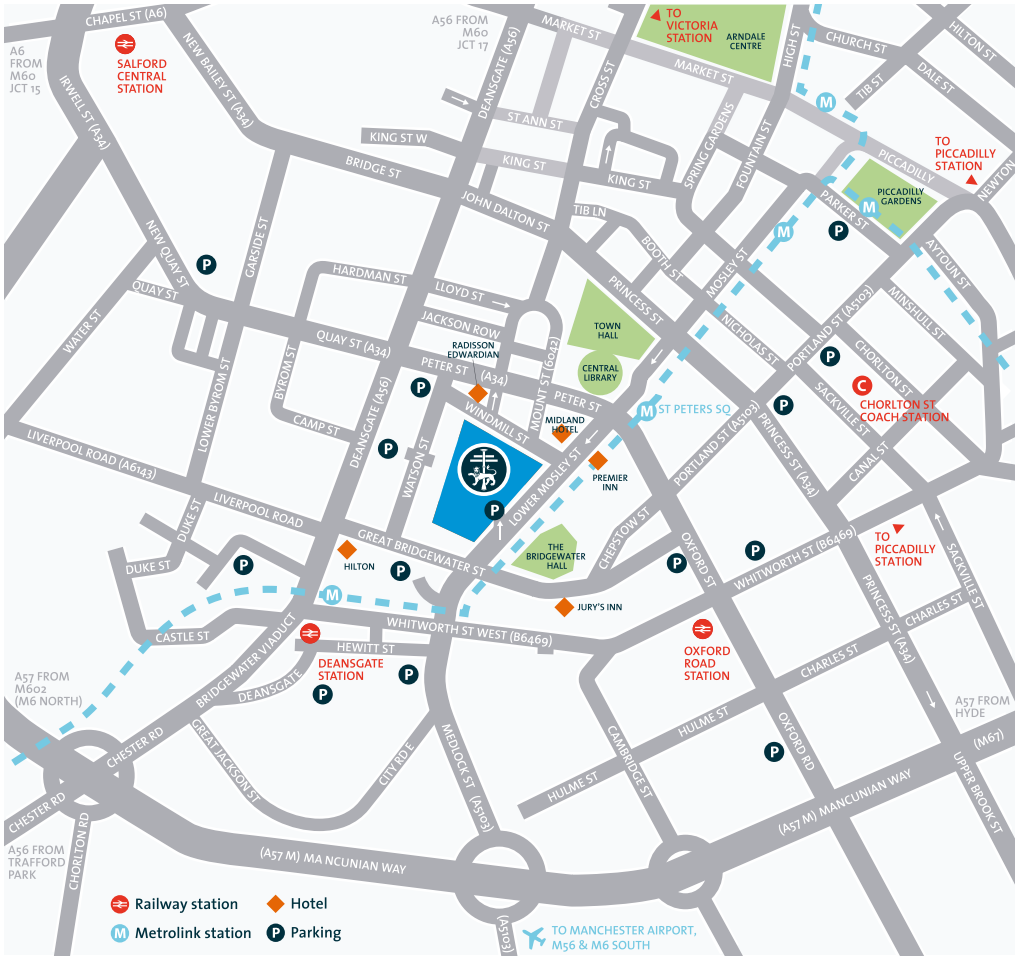
Venue: Manchester Conference Centre & The Pendulum Hotel, Sackville Street, M1 3BB

Please note this is NOT the same venue as the Summer Meeting.

For last-minute registration and delegate fee information, please see the short course information on the website at:

www.brit-thoracic.org.uk/education-and-events/bts-short-courses

TRAVELLING TO MANCHESTER CENTRAL



ON ARRIVAL IN MANCHESTER

Metroshuttle buses are free and link the city centre's main rail stations, shopping areas and businesses.

Click here for more information on routes.

The nearest Metrolink stop to Manchester Central is St Peter's Square and is just a few minutes away on foot. Metrolink runs every few minutes from early morning until late in the evening. You don't need a timetable, just turn up, buy your ticket and the next Metrolink will be along shortly. However, the network is currently being expanded so please do check your route before travelling. Routes and further information can be found on the Metrolink website: **tfgm.com/public-transport/tram**

There is a dedicated **taxi rank** at the front of the venue for pickups and drop offs. Black cab taxis are readily available at Manchester Airport and at Piccadilly and Victoria train stations.

Find out more at **tfgm.com** or phone Traveline on **0871 200 22 33**

BY TRAIN

Manchester has direct connections to most major UK cities and it takes a little over two hours to reach Manchester from London. Services arrive at Piccadilly or Victoria stations where passengers can connect with Metrolink trams for easy access to the city centre. Manchester Central is a 20-minute walk from Piccadilly Station or five minutes by taxi. Alternatively, catch a connecting train to Oxford Road Station, just a five-minute walk from Manchester Central.

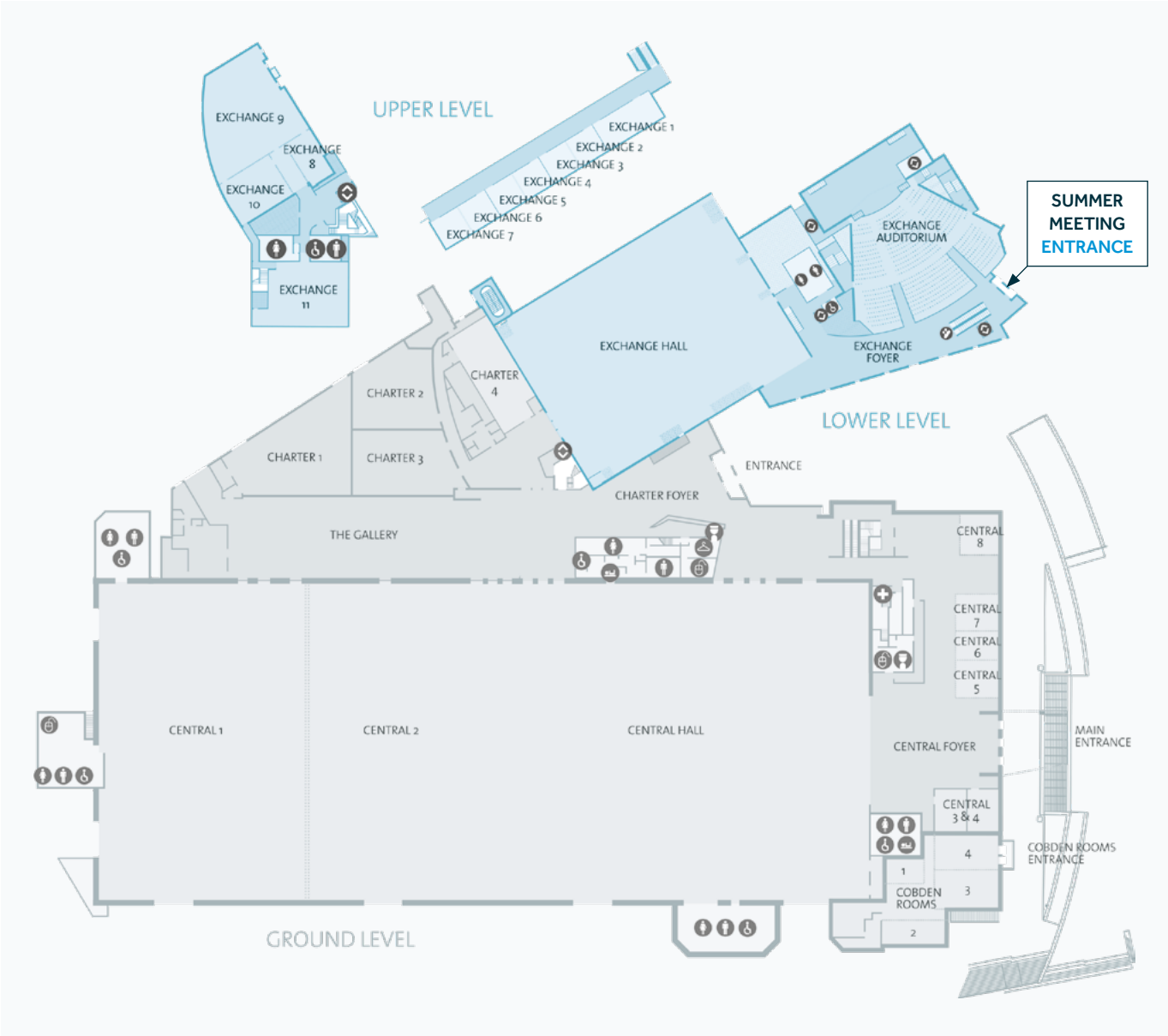
Further information on train services can be found at:
www.avantiwestcoast.co.uk
www.nationalrail.co.uk
www.tpexpress.co.uk
www.northernrailway.co.uk/stations/MAN

BY CAR

Manchester is at the heart of a comprehensive motorway network. Manchester's M60 orbital motorway provides easy access from north, south, east and west. If using a Sat Nav, follow the postcode: **M2 3GX.**

There is an NCP (National Car Park) directly below Manchester Central, which may be booked here: **www.ncp.co.uk/find-a-car-park/car-parks/manchester-central.** For a discounted rate, book via the NCP app using the code: MCEXHIB14

FINDING YOUR WAY AROUND THE VENUE



Key

- TOILETS
- ORGANISERS' OFFICE
- FIRST AID
- ESCALATORS
- LIFT
- CONCIERGE
- CLOAKROOM
- BABY CHANGE

Entrance:
Exchange Suite, Windmill Street

Cloakroom:
Exchange Foyer, Ground Level

BTS registration:
Exchange Foyer, Lower Level

Exhibition and catering:
Exchange Hall, Lower Level

Conference rooms:
Exchange Auditorium, Lower Level
Exchange 8-10, Upper Level
Exchange 11, Upper Level

Abstract Prize digital posters:
Exchange Hall, Lower Level

Speakers' preview room:
Exchange 1, Upper Level

Private meeting room:
Exchange 2-3, Upper Level

Prayer room:
Lower Foyer, Ground Level

Nursing mothers' room:
Exchange 4, Upper Level

PROGRAMME
THURSDAY 23RD JUNE 2022

8.30am – 9.30am **REGISTRATION AND REFRESHMENTS**

Exchange Foyer & Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App.

9.30am – 11.00am **SIMULTANEOUS SYMPOSIA**

Exchange Auditorium, lower level

YEAR IN REVIEW

Chaired by: Dr Charlotte Addy (Cardiff) and
Dr Alanna Hare (London)

1) Cystic fibrosis
Marc Cotterill (Stoke-on-Trent) and
Laura Barlow (Stoke-on-Trent/Shrewsbury)
2) The OSAHS and OHS NICE Guidelines: an update on the diagnosis and management of obstructive sleep apnoea
Dr Annabel Nickol (Oxford)
3) Update on the NHS England Long Term Plan
Professor Andrew Menzies-Gow (London)

Learning outcomes

- To understand new and emerging therapies in cystic fibrosis and the impact on patients.
- To understand the latest NICE guidance on obstructive sleep apnoea/hypopnoea syndrome and the implications for clinical practice and service design.
- To understand how the NHSE Long Term Plan has been affected by the COVID-19 pandemic and what the Plan means for respiratory medicine.

Curriculum mapping

E16: Cystic fibrosis

E11: Sleep related breathing disorders

I1: Management and NHS structure

L1: Health promotion and public health

C14: Identifying the contexts for change

Exchange 8-10, upper level

PLEURAL DISEASE MANAGEMENT IN 2022

Chaired by: Professor Nick Maskell (Bristol) and
Laura McNaughton (Glasgow)

1) Optimal management of a malignant pleural effusion
Dr Mark Roberts (Mansfield)
2) Optimal management of primary and secondary pneumothorax in 2022
Dr Rob Hallifax (Oxford)
3) Role of the pleural nurse specialist
Sarah Johnstone (Leicester)

Learning outcomes

- Review the evidence-based management of a malignant pleural effusion.
- Review the evidence-based management of pneumothorax.
- Understand the role of the pleural nurse specialist.

Curriculum mapping

C6: Working within teams

D1: Breathlessness

D7: Pleural effusions

E4: Thoracic oncology

E5: Thoracic surgery

E14: Disorders of pleural and mediastinum, including pneumothorax

F6-F10: Pleural procedures (ultrasound, aspiration, intercostal drain, pleurodesis, thoracoscopy and IPC)

Slido voting may be in use in this session.

Exchange 11, upper level

MDT MODELS OF CARE. UTILISING NURSES AND ALLIED HEALTH CARE PROFESSIONALS

Chaired by: Alison Armstrong (Newcastle upon Tyne) and
Claire Somerton (Manchester)

1) Nurse and allied health professional treatable traits asthma clinic
John Davison, Paul McCallion and
Jennifer Butler (Newcastle upon Tyne)
2) Supporting ILD patients in receiving a holistic and co-ordinated approach to their care
Helen Morris (Manchester)
3) Reducing admissions by providing nurse led psychological support
Dr Karen Heslop-Marshall (Newcastle upon Tyne)

Learning outcomes

- Explore services developed by respiratory nurses and allied health professionals, which address complex biopsychosocial needs of patients.
- To understand the role of specialist respiratory nurses and allied health professionals for the treatment and management of complex asthma and bronchiectasis using a treatable traits approach.
- Identify potential benefits of nurse and allied health care professionals' roles in respiratory care in providing psychological support.

Curriculum mapping

A1: The patient as central focus of care

B1: History taking

B3: Therapeutics and safe prescribing

B6: Evidence and guidelines

C6: Working within teams

C12: Encouraging Innovation

E2: Asthma

E10: Interstitial lung disease (ILD)

E27: Dysfunctional breathing and psychological aspects of respiratory symptoms

E28: Managing long term conditions: integrated care and the promotion of self-care

G2: Team working and patient safety

11.00am – 11.30am **REFRESHMENTS**

Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App.

11.30am – 1.00pm **SIMULTANEOUS SYMPOSIA**

Exchange Auditorium, lower level

MINI SHORT COURSE PART 1

UNDERSTANDING AND APPROACHING THE MANAGEMENT OF CHRONIC BREATHLESSNESS

Chaired by: Sarah Kearney (Isle of Wight) and Dr Helen Ward (Wolverhampton)

1) What is breathlessness?
   Professor Morag Farquhar (Norwich) and Dr Charles Sharp (Gloucestershire)
2) How to approach the management of breathlessness: Breathing Thinking Functioning model
   Dr Anna Spathis (Cambridge)
3) What could a chronic breathlessness service look like
   Dr Helen Ward (Wolverhampton)

Learning outcomes

- To understand the genesis and subjective experience of breathlessness including patients' perspective.
- To understand the Breathing, Thinking, Functional model and how to use it when approaching the management of chronic breathlessness.
- To understand current breathlessness services and how to approach the setting up of a chronic breathlessness service.

Curriculum mapping

B7: Relationships with patients and communication

D1: Breathlessness

E26: Palliative care

E27: Psychological aspects of respiratory symptoms

Exchange 8-10, upper level

CLINICAL GRAND ROUND

Judged by: Dr Alanna Hare (London), Susan Hope (Shropshire) and Dr Paul Walker (Liverpool)

1) Utilising focused bedside ultrasound in the diagnosis of an unexplained persistent type 2 respiratory failure
   [1]A Omar, [1]J Fanshawe, [2]T Simpson.
   [1]Guys and St Thomas NHS Foundation Trust, London, UK; [2]Lewisham and Greenwich NHS Trust, London, UK
2) Progression of idiopathic pulmonary fibrosis? Don't take it lying down
   [1]TR McLellan, [1]H Parfrey. [1]Royal Papworth Hospital, Cambridge, UK.
3) Persistent hypoxia following cerebral infarction: more than just a case of 'known COPD'
   [1]B Pippard. [1]Sunderland Royal Hospital, Sunderland, UK.

Learning objectives

The above three finalists, selected after evaluation of a host of submissions, will present interesting clinical scenarios, highlighting diagnostic dilemmas and complex management decisions. A winner will be chosen and announced at the President's Reception.

Slido voting will be in use in this session

Exchange 11, upper level

IMPROVING THE CARE OF PATIENTS WITH LUNG CANCER AND PLEURAL DISEASE

Chaired by: Dr Paul Beckett (Derby) and Liz Darlison (Leicester)

1) Targeted Lung Health Check: Lessons learnt from the first wave pilot sites
   Professor Matthew Callister (Leeds)
2) Time for a national optimal mesothelioma pathway?
   Professor Michael Peake (London)
3) Pleural Diseases – key findings of the National GIRFT report and key priorities for quality improvement
   Dr Matthew Evison (Manchester)

Learning outcomes

- Understand the current landscape of lung cancer screening.
- Consider how mesothelioma care may be standardised across the UK.
- Review the key priorities for quality improvement in UK pleural services.

Curriculum mapping

C7, C8, C14: Planning, managing resources, identifying the contexts for change

E4: Thoracic oncology

E14: Disorders of pleural and mediastinum, including pneumothorax

G3: Principles of quality and safety improvement

K1: Evidence and guidelines

K2: Audit

1.00pm – 2.00pm **LUNCH**

Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App.

2.00pm – 2.30pm **ABSTRACT PRIZES SESSION**

Exchange 11, upper level

CATEGORY – IMPROVING QUALITY IN PATIENT CARE

Submissions reviewed by:
Dr Alanna Hare (London), Dr Mark Juniper (Swindon) and Dr Ryan Robinson (Liverpool)

Shortlisted abstracts judged on the day by:
Dr Alanna Hare (London) and Dr Mark Juniper (Swindon)

The 6 shortlisted abstracts will be presented during this session, with the associated digital posters on display in Exchange Hall and on the Summer Meeting App.

1) The sooner the better? The Respiratory Early Diagnostic Service – turning Oxford "REDS"
[1]G Ghidoni, [1]KL Ng, [1]A Moore, [1]A Talwar, [1]A Sykes, [1]J Wrightson, [1]H Ellis, [2]M Tsakok, [2]R Benamore, [2]L Radbourne, [2]L Wing, [2]H Peschl, [2]F Macleod, [2]T Condon, [3]S Hiscox, [1]W Robinson, [1]M Joachimiak, [1]J Yates, [1]J Park. [1]Osler Respiratory Unit, Oxford Universities Hospitals NHS Foundation Trust, Oxford, UK; [2]Department of Thoracic Radiology, Oxford Universities Hospitals NHS Foundation Trust, Oxford, UK; [3]QI Hub, Oxford Universities Hospitals NHS Foundation Trust, Oxford, UK.

2) Improving the management of tobacco dependence
[1]EL Toplis, [1]LA Boast, [1]JA Hampson, [2]R Smithers, [2]S Mia, [3]H Gleeson, [1]D Moore, [1]GE Lowrey. [1]University Hospitals of Derby and Burton NHS Foundation Trust, Derby, UK; [2]Livewell, Derby, UK; [3]Live Life Better Derbyshire, Derby, UK.

3) The 'Satellite' Project – Sleep Apnoea TELephone IniTiativE
[1]P Corry, [1]T McManus, [1]F Okpoko, [1]J Kara, [1]Z Khan, [1]J Wieboldt, [1]J Pastrana, [1]C McGarrigle, [1]L McManus, [1]S Campbell, [1]E McKenna, [1]K Donnelly, [1]T Howe, [1]A Irvine. [1]South West Acute Hospital, Enniskillen, Northern Ireland.

4) A two-cycle quality improvement project introducing a documentation proforma to ensure evidence-based, safe and efficient management of patients hospitalised with COVID-19.
[1]J Winterton, [1]E Frisira, [1]O Munajjed. [1]Hillingdon Hospital, London, UK.

5) An audit of patient non-adherence and cost savings at a Severe Asthma Service through appropriate stock control of biologics
[1]C Whitehurst, [1]K Newman, [1]CT Pantin, [1]L Elsey. [1]Manchester University NHS Foundation Trust, Manchester, UK.

6) Effectiveness of a pharmacist managed Fungal Therapeutic Drug monitoring (TDM) clinic to improve outcomes in patients with chronic fungal lung infections: a quality improvement study
[1]L Nwankwo, [2]V Vas, [3]M Loebinger, [3]D Armstrong-James, [3]A Shah. [1]Pharmacy Department, Royal Brompton and Harefield Hospitals, Chelsea, UK; [2]GSTT Education Centre, Lambeth, UK; [3]Department of Respiratory Medicine, Royal Brompton and Harefield Hospitals, Chelsea, UK.

2.30pm – 4.00pm **SIMULTANEOUS SYMPOSIA**

Exchange Auditorium, lower level

MINI SHORT COURSE PART 2

UNDERSTANDING AND APPROACHING THE MANAGEMENT OF CHRONIC BREATHLESSNESS

Chaired by: Sarah Kearney (Isle of Wight) and Dr Helen Ward (Wolverhampton)

1) The management of a breathlessness patient: physiotherapist approach
Lizzie Grillo (London)

2) The approach to the management of an anxious breathless patient
Professor Morag Farquhar (Norwich) and Dr Karen Heslop-Marshall (Newcastle upon Tyne)

3) Pharmacological palliation of chronic breathlessness: opioids, antidepressants and benzodiazepines
Professor Miriam Johnson (Hull)

Learning outcomes

- To understand the physiotherapist approach and evidence-based interventions in chronic breathlessness.
- To understand how to approach and manage the anxious and breathless patient including evidence-based interventions i.e., cognitive behavioural therapy.
- Understand the benefits and evidence-base of pharmacological interventions in chronic breathlessness.

Curriculum mapping

B7: Relationships with patients and communication

D1: Breathlessness

E26: Palliative care

E27: Psychological aspects of respiratory symptoms

Exchange 8-10, upper level

STEROIDS IN ASTHMA: HOW MUCH IS TOO MUCH?

Chaired by: Leanne Jo Holmes (Manchester) and
Dr Hitasha Rupani (Southampton)

1) High dose inhaled steroids: is there a risk of adrenal insufficiency?
Dr Miguel Debono (Sheffield)
2) Reducing OCS use in asthma: the era of asthma biologics
Dr David Jackson (London)
3) ICS, OCS or no CS: balancing risks and benefits in children and adolescents with asthma
Dr Prasad Nagakumar (Birmingham)

Learning outcomes

- Raise awareness of the NatPSA on high dose ICS and help clinicians understand the risks.
- Understand the benefits of asthma biologics in improving patient outcomes and reducing steroid related side effects.
- To provide an overview of the issues relating to high dose inhaled and oral steroids in the paediatric population.

Curriculum mapping

E2: Asthma

E28: Managing long term conditions: integrated care and self-care

B6: Evidence and guidelines

G1: Prioritisation of patient safety in clinical practice

D1: Breathlessness

A1: The patient as central focus of care

D15: Applying knowledge and evidence

Slido voting may be in use in this session.

Exchange 11, upper level

REHABILITATION IN COPD – THE BIGGER PICTURE

Chaired by: Dr Neil Greening (Leicester) and
Dr Claire Nolan (London)

1) Frailty in COPD
Dr Lisa Brighton (London)
2) Sarcopenia in COPD
Dr Matthew Maddocks (London)
3) Rehabilitation of balance impairment in COPD
Dr Kirsti Loughran (South Tees)

Learning outcomes

- Understand the impact and implications of frailty in COPD.
- Understand the impact and implications of sarcopenia in COPD.
- Understand the causes and impact of falls and balance impairment in COPD, with consideration of how to measure and manage such impairment.

Curriculum mapping

E1: Respiratory anatomy, physiology, pathology, microbiology and pharmacology

E2: Asthma

E24: Pulmonary rehabilitation

E27: Dysfunctional breathing and psychological aspects of respiratory symptoms

E28: Managing long term conditions: integrated care and the promotion of self-care

4.00pm – 4.30pm **REFRESHMENTS**

Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App.

4.30pm – 6.00pm **SIMULTANEOUS SYMPOSIA**

Exchange Auditorium, lower level

JOINT BTS/BSTI SYMPOSIUM

Chaired by: Dr Annette Johnstone (Leeds) and
Dr Ruth McStay (Newcastle upon Tyne)

1) CXR and CT made easy – know your anatomy?
Dr Ruth McStay (Newcastle upon Tyne)
2) A practical guide to lung cancer staging
Dr Annette Johnstone (Leeds)
3) HRCT – it's all just patterns!
Dr Hilary Moss (Harrogate)

Learning outcomes

- Understanding chest anatomy relevant to CXR appearances and how these can be applied to detecting pathology, correlating appearances with CT.
- Understanding the key points of TNM 8 lung cancer staging and how this is relevant to MDT decision making and treatment planning.
- Understanding HRCT technique and how to spot and interpret the common patterns seen in interstitial lung disease.

Curriculum mapping

D5: Abnormal CXR (encompassing D1: Breathlessness / D2: Cough / D3: Haemoptysis / D7: Pleural effusion)

E1: Respiratory anatomy

E4: Thoracic oncology

E9: Bronchiectasis

E10: ILD

E14: Disorders of pleura and mediastinum

E15: Pulmonary manifestations of systemic disease

E18: Occupational and environmental lung disease

E22: Imaging techniques

Slido voting may be in use in this session.

Exchange 8-10, upper level

TREATING TOBACCO DEPENDENCY AND THE NHS LONG TERM PLAN – HOW FANTASY BECOMES REALITY

Chaired by: Dr Zaheer Mangera (London) and
Dr Louise Restrick (London)

1) Common pitfalls in the medical management of tobacco dependence
Dr Matthew Evison (Manchester)
2) No need to start from scratch when developing a tobacco dependence service
Melanie Perry (BTS)
3) E-cigarettes in the treatment of tobacco dependency: an update from NICE
Professor John Britton (Nottingham)

Learning outcomes

- Develop an understanding of the multimodality approach required in supporting individuals with tobacco dependence.
- How to set up a tobacco dependence treatment service in your department.
- Understanding the role of e-cigarettes in treating tobacco dependency.

Curriculum mapping

E23: Smoking cessation

B6: Evidence and guidelines

B.6.8: Smoking related disease

L1: Health Promotion and Public Health

Slido voting may be in use in this session

Exchange 11, upper level

THE UPS, DOWNS, SWINGS AND ROUNDABOUTS OF REMOTENESS IN COPD – LESSONS FOR THE FUTURE AFTER COVID-19

Chaired by: Professor Charlotte Bolton (Nottingham) and
Paul McCallion (Newcastle upon Tyne)

4) Implications of COVID-19-related public health measures on COPD exacerbations. Lessons for the future
Dr Keir Philip (London)
5) Anxiety and COPD – diagnosis and initial management
Dr Karen Heslop-Marshall (Newcastle upon Tyne)
6) Remote COPD working – new ways of delivering chronic disease management
Dr Steve Holmes (Shepton Mallet)

Learning outcomes

- The public health and behavioural measures to reduce an exacerbation of COPD.
- The fundamental core skills to identify and address anxiety in patients with COPD – and its effects on breathlessness, ADLs etc.
- Wider consideration and review of services – how they have been and need to be adapted to deliver quality care to meet needs of patients and the NHS into the future.

Curriculum mapping

E3: Chronic obstructive pulmonary disease (COPD)

E23: Smoking cessation

E24: Pulmonary rehabilitation

E26: palliative care

E27: Dysfunctional breathing and psychological aspects of respiratory symptoms

E28: Managing long term conditions: integrated care and the promotion of self-care

6.00pm – 7.00pm **THE BTS PRESIDENT'S RECEPTION AND AWARD PRESENTATIONS**

Exchange Hall, lower level

All delegates are warmly invited to attend this social occasion, where the awards will be presented for the Clinical Grand Round and the Abstract Prizes "Improving quality in patient care" category

PROGRAMME
FRIDAY 24TH JUNE 2022

8.00am – 8.30am **REGISTRATION AND REFRESHMENTS**

Exchange Foyer & Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App.

8.30am – 10.00am **SIMULTANEOUS SYMPOSIA**

Exchange 8-10, upper level

PLENTY OF RHEUM IN ILD: IMMUNOMODULATION, ANTIBODIES AND ANTI-FIBROTICS

Chaired by: Professor Christopher Denton (London), Claire Donaldson (Newcastle upon Tyne) and Professor Joanna Porter (London)

1) Immunomodulatory therapeutics in ILD: a practical guide and framework for management
   Dr Puja Mehta (London)
2) TRAIL-blazing anti-fibrotics in rheumatoid arthritis-associated ILD
   Dr Felix Woodhead (Leicester)
3) Case-based presentation on auto-antibodies in CTD-ILD
   Dr Harsha Gunawardena (Bristol)

Learning outcomes

- To understand the practical application of immunomodulation in ILD – practicalities of prescribing, monitoring, the efficacy and safety of existing (e.g., tocilizumab), emerging (e.g., JAK inhibitors) and future (e.g., anti-GMCSF monoclonal Abs) therapies for managing ILD.
- To understand the emerging role of anti-fibrotics (pirfenidone) in RA-ILD.
- To understand the clinical significance of ILD-associated autoantibodies – interpretation and investigation.

Curriculum mapping

D1: Breathlessness: knowledge, skills and behaviours

D5: Abnormal chest X-ray

E10: ILD

E15: Pulmonary manifestations of systemic disease

Slido voting may be in use in this session.

Exchange Auditorium, lower level

ICU ADMISSION: WHO SHOULD BE ADMITTED, WHY AND WHY NOT?

Chaired by: Pearlene Antoine-Pitterson (Birmingham) and Dr Ben Messer (Newcastle upon Tyne)

1) Ethical and legal decision making in critical care: the implications of escalation decisions
   Dr Daniele Bryden (Sheffield)
2) Decision making in the COVID-19 pandemic: who gets the ventilator?
   Dr Ganesh Suntharalingam (London)
3) Prognostic nihilism in patients with learning disabilities: the COPD of our generation?
   Dr Hilary Tedd (Newcastle upon Tyne)

Learning outcomes

- Understanding of an ethical framework to decision making within critical care.
- Consideration of the legal consequences of decision-making surrounding escalation to critical care.
- An appreciation of the national perspective on decision making during pandemics.
- Understanding of the unique difficulties faced by patients with learning disabilities and their families.

Curriculum mapping

B4: Time management and decision making

C10: Managing performance

H1: Principles of medical ethics and confidentiality

H2: Legal framework for practice

H4: Complaints and medical error

Exchange 11, upper level

JOINT BTS/ARTP SYMPOSIUM

INSIDE THE LUNG FUNCTION LABORATORY

Chaired by: Lauren Kimberley (Reading) and Mark Unstead (Reading)

1) Quality and safety in the lung function lab
   Sindhu Sivagnanasithiyar (London)
2) Introduction to the theory and clinical application of routine lung function tests
   Peter Robinson (Frimley)
3) A specialist trainee guide to non-routine tests in respiratory physiology
   Lewis Gidden (Worcester)

Learning outcomes

Lung function testing underpins respiratory medicine but it is often poorly understood across staff groups. This session is aimed at early-stage respiratory trainees and other respiratory professionals, although it will provide a refresher for more senior colleagues.

- Attendees will be able to understand the principles of service organisation, quality, infection control and safety applicable to a respiratory physiology laboratory.
- Attendees will be able to apply the core theoretical principles of routine lung function assessment into the clinical setting.
- Attendees will gain an insight into more advanced tests such as exercise testing, airway challenge and exhaled nitric oxide.

Curriculum mapping

B6: Evidence and guidelines

D1: Breathlessness

E1: Respiratory anatomy, physiology, pathology, microbiology and pharmacology

F2: Respiratory physiology and lung function testing

Slido voting may be in use in this session.

10.00am – 10.30am **REFRESHMENTS**

Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App.

10.30am – 12.00pm **SIMULTANEOUS SESSIONS**

10.30am – 12.00pm **SYMPOSIUM**

Exchange Auditorium, lower level

OCCUPATIONAL ASTHMA UPDATE – CLINICAL STATEMENT AND INTERACTIVE CASES

Chaired by: Dr Jennifer Hoyle (Manchester) and
Dr Ruth Wiggans (Manchester)

1) Introduction and epidemiology
Dr Chris Barber (Sheffield)
2) Approach to diagnosis
Dr Gareth Walters (Birmingham)
3) Management and predicting prognosis
Dr Johanna Feary (London)

Learning outcomes

- Recognise the different types of work-related asthma and their common causes.
- Understand the clinical approach to investigating occupational asthma in the UK, and the role of different diagnostic tests.
- Appreciate the options for case management and the determinants of good outcomes in occupational asthma.

Curriculum mapping

B1: History taking

B5: Decision-making and clinical reasoning

B6: Evidence and guidelines

C15: Applying knowledge and evidence

C16: Making decisions

D1: Breathlessness

E2: Asthma

E18 Occupational and environmental lung disease (including flying and diving)

E28: Managing long term conditions

F2: Respiratory physiology and lung function testing

K1: Evidence and guidelines

Slido voting will be in use in this session.

10.30am – 11.00am **ABSTRACT PRESENTATIONS**

Exchange 11, upper level

CATEGORY – INNOVATION IN RESPIRATORY EDUCATION AND TRAINING

Submissions reviewed and shortlisted abstracts judged by:
Alison Armstrong (Newcastle upon Tyne),
Dr Alanna Hare (London) and
Ema Swingwood (Bristol)

The 6 shortlisted abstracts will be presented during this session, with the associated digital posters on display in Exchange Hall and on the Summer Meeting App.

1) Smoking cessation training for foundation year doctors – a positive step towards a smoke-free society
[1]EJ Farnell, [1]SRG Tankard, [1]NC Lee. [1]Wrightington, Wigan and Leigh Teaching Hospitals NHS Foundation Trust, Wigan, UK.
2) Immersive Technology – the future for respiratory education?
[1]P Twose, [1]C Dyer, [1]SC Cook. [1]Cardiff and Vale UHB, Cardiff, UK.
3) Delivery of two international respiratory education webinar series during the COVID-19 pandemic
[1]SA Ananth, [2]AMM Malhotra, [2]KLG Le Grice, [2]NS Smallcombe, [2]BV Vijayakumar, [2]MB Beckles, [2]PAC Corris, [2]JB Blaikley, [2]ESS Suh, [2]AL Lalvani, [2]NS Shah. [1]Department of Respiratory Medicine, West Hertfordshire Teaching Hospitals NHS Trust, Watford, UK; [2]Respiratory Section, Royal Society of Medicine, London, UK.
4) The Home Mechanical Ventilation (HMV) for Patients with Chronic Obstructive Pulmonary Disease (COPD) Educational Website
[1]L Emmett. [1]Leeds Teaching Hospital, Leeds, UK.
5) Respiratory Emergency Simulation Teaching (REST) in a multi-disciplinary team (MDT) setting at Portsmouth Hospitals University Trust
[1]A Elrick, [1]L Carnall, [1]R Gonzalez, [1]L Camfield, [1]F Thompson. [1]Queen Alexandra Hospital, Portsmouth, England.

6) Establishing an inter-deanery collaborative online Respiratory SCE revision course
[1]H Elder, [2]J Bradley, [2]C Rowan, [2]G Ahuja, [1]M Bhatnagar, [1]H Carlin, [3]K Williams, [1]I Forrest. [1]Newcastle upon Tyne Hospitals Foundation Trust, Newcastle, UK; [2]Leeds Teaching Hospitals Trust, Leeds, UK; [3]The Mid Yorks Hospitals NHS Trust, Wakefield, UK.

11.05am – 12.00pm **PHYSIOLOGY QUIZ Q&A SESSION**

Exchange 8-10, upper level

Quiz organised by the Respiratory Physiology Department, Royal Berkshire NHS Foundation Trust.

Moderated by: Jessica Swan and Mark Unstead

Join this session where Jessica and Mark will discuss the Physiology Quiz cases and answer questions from delegates.

Throughout both days of the Meeting, delegates will be able to access the Physiology Quiz cases on the Summer Meeting App, to test their knowledge studying the individual cases, before revealing the answers.

12.05pm – 1.00pm **GUEST LECTURE**

Exchange Auditorium, lower level

SCIENCE AND THE CRYSTAL BALL OF COVID-19 VACCINATION

Professor Wei Shen Lim (Nottingham)

Introduced by: Dr Paul Walker (Liverpool)

Including presentation of the winning Abstract Prize in the "Innovation in respiratory education and training" category.

1.00pm – 2.00pm **LUNCH**

Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App

1.20pm – 1.50pm **LUNCHTIME OPEN SESSION**

Exchange 11, upper level

INSPIRE RESEARCH NETWORK 2022 UPDATE

Chaired by: Dr Akhilesh Jha (Cambridge)

1) How can you contribute to INSPIRE?
Dr Thomas Jones (Portsmouth)

2) Update on two national collaborative projects:
   - LISP pneumothorax study – Dr Steven Walker (Bristol)
   - ERUPT thrombolysis in PE study – Dr Ruth Sobala (Tyne & Wear) and Dr Joe Kibbler (North East)

3) Opening of the November 2022 Sandpit Event
Dr Akhilesh Jha (Cambridge)

Session overview

INSPIRE is a new UK-wide research network supported by NIHR and BTS for early career respiratory researchers to develop collaborative research projects and develop their research skills. In this session you will:

- Hear about how to get involved in INSPIRE
- Receive an update on the projects that were initiated this year
- Find out about plans for the next Sandpit event

2.00pm – 3.30pm **SIMULTANEOUS SYMPOSIA**

Exchange Auditorium, lower level

MINI SHORT COURSE PART 1

COMPLEX MYCOBACTERIAL AND FUNGAL CASES

Chaired by: Dr Lucy Baker (London) and
Dr Meg Coleman (London)

1) Complex TB – cases from the BTS MDR TB Clinical Advice Service
Professor Onn Min Kon (London)

2) New drugs and shorter treatments for drug-resistant TB
Professor Geraint Davies (Liverpool)

3) Detecting latent TB infection: what do the tests mean?Dr Georgina Russell (Cambridge)

Learning outcomes

- Appreciate the new drugs and new approaches to treatment of drug resistant TB, including contacts of people with multi-drug resistant TB.
- Consider the real-life problems encountered in the treatment of people with complex TB and NTM (including cystic fibrosis) including through the use of clinical cases from the BTS MDR TB Clinical Advice Service.
- Understand new how latent TB is diagnosed, and how to use and interpret skin and blood test results to optimise patient care.
- Understand the heterogenous presentation of pulmonary fungal disease and how this informs therapeutic decision making.
- Have practical guidance on therapeutic management of complex pulmonary fungal disease and when referral to specialist centres is advised.
- Have practical tips on how to achieve antifungal stewardship and be aware of complex pharmaceutical interactions in chronic pulmonary fungal disease.
- Appreciate the multi-disciplinary approach to managing complex mycobacterial and fungal lung diseases.

Curriculum mapping

A1: The patient as central focus of care

B1: History taking

B2: Limits of exam

B3: Therapeutics and safe prescribing

B4: Handling uncertainty

B5: Decision making and clinical reasoning

B6: Guidelines

C4 & C6: Teamwork

C15: Applying knowledge and evidence

E1: Microbiology

E4 & E5: Mediastinal lymphadenopathy

E6: Pulmonary infections

E7: Tuberculosis and opportunist mycobacterial disease (OMD)

E8: Pulmonary disease in the immunocompromised host

E9: Bronchiectasis

E13: Allergic lung disorders and anaphylaxis

E14: Disorders of pleura and mediastinum, including pneumothorax

E16: Cystic fibrosis

G1: Response to treatment

G2: Team working and patient safety

G4: Infection control

I1: NHS structure

K1: Use of evidence

Slido voting may be in use in this session.

DILEMMAS IN THE MANAGEMENT OF ACUTE PULMONARY EMBOLISM

Exchange 8-10, upper level

Chaired by: Dr Sheila Ramjug (Manchester) and
Dr Ruth Sobala (Newcastle)

1) The management of pulmonary embolism in special populations (1): pregnancy and cancer
Dr Julia Anderson (Edinburgh)
2) The management of pulmonary embolism in special populations (2): thrombophilia, antiphospholipid syndrome and patients at high risk of bleeding
Dr Will Lester (Birmingham)
3) The radiological manifestations of thromboembolic disease: how to interpret the CTPA at 3am
Dr Deepa Gopalan (London)

Learning outcomes

- To understand how to investigate and treat pulmonary embolism in complex cases which is not always following standard care.
- To recognise how to manage pulmonary embolism in haematological disorders and to identify those patients at a high bleeding risk.
- To better interpret the appearances of acute PE on CTPA and the features of co-existent chronic thromboembolic pulmonary disease.

Curriculum mapping

D1: Breathlessness

D4: Pleuritic chest pain

E4: Thoracic oncology

E12: Pulmonary vascular diseases

E15: Pulmonary manifestations of systemic disease

E22: Imaging techniques

Slido voting may be in use in this session.

Exchange 11, upper level

LUNG CANCER – FUTURE DIRECTIONS IN 2030

Chaired by: Dr Ahsan Akram (Edinburgh) and
Dr Emma O'Dowd (Nottingham)

1) AI in lung cancer radiology: less artifice, more intelligence
Dr Arjun Nair (London)
2) Blood biomarkers – diagnosis in a bottle
Dr Julian Barwell (Leicester)
3) Bronchoscopy for the future – navigational and beyond
Mr Kelvin Lau (London)

Learning outcomes

- The integration of AI into modern lung cancer radiology.
- Understanding where blood biomarkers will be placed in future lung cancer diagnostics.
- Appreciating new and future endobronchial techniques for the diagnosis and treatment of lung cancer.

Curriculum mapping

B6: Evidence and guidelines

C15: Applying knowledge and evidence

D5: Abnormal chest X-ray

E4: Thoracic oncology

E14: Disorders of pleura and mediastinum, including pneumothorax

E22: Imaging techniques

F5: Bronchoscopy

Slido voting may be in use in this session.

3.30pm – 3.45pm **REFRESHMENTS**

Exchange Hall, lower level

Visit the exhibition stands and view the Abstract Prize digital posters in the exhibition area. Test yourself with the Physiology Quiz cases on the Summer Meeting App.

3.45pm – 5.15pm **SIMULTANEOUS SYMPOSIA**

Exchange Auditorium, lower level

MINI SHORT COURSE PART 2

COMPLEX MYCOBACTERIAL AND FUNGAL CASES

Chaired by: Dr Lucy Baker (London) and
Dr Meg Coleman (London)

1) Managing allergic bronchopulmonary aspergillosis – steroids, antifungals or biologics?
Dr Anand Shah (London)
2) Chronic pulmonary aspergillosis – who/when to treat and how to monitor response
Dr Chris Kosmidis (Manchester)
3) Managing difficult NTM-PD across disease spectrums: from cystic fibrosis to bronchiectasis
Dr Charlotte Addy (Cardiff)

Learning outcomes and curriculum mapping

- See Part 1

Slido voting may be in use in this session.

Exchange 8-10, upper level

AVENGERS ASSEMBLE: MDT SUPERHEROES

Chaired by: Dr Hussain Basheer (London) and
Dr Lola Loewenthal (London)

1) The Power of Physiotherapy
Ema Swingwood (Bristol)
2) Super-SALT
Claire Slinger (Preston)
3) Fantastic-Pharm
Josie Cunningham (Frimley) and Annant Damani (Frimley)

Learning outcomes

- To better identify which patients and conditions will benefit from different professional input, and how these can improve both patient care and outcomes.
- To understand what investigations, therapeutics and management are used by different healthcare professionals, and how these are practically performed, in times of difficulty (both patient demand, and restrictions imposed by the pandemic).
- To be aware of and acknowledge how the multidisciplinary workforce is crucial to the present and future health of respiratory medicine overall, and its unprecedented demands, given the fallout of the covid pandemic. How can we best focus services to benefit patients and staff alike?

Curriculum mapping

B3: Therapeutics and safe prescribing

B5: Decision making and clinical reasoning

B6: Evidence and guidelines

C4: Developing networks

C5: Building and maintaining relationships

C6: Working within teams

C8: Managing resources

C11: Patient safety

C12: Encouraging innovation

C13: Facilitating transformation

D1: Breathlessness

D2: Cough

D6: Respiratory failure

E3: COPD

E8: Pulmonary disease in the immunocompromised host

E16: Cystic fibrosis

E24: Pulmonary rehabilitation

E27: Dysfunctional breathing and psychological aspects of respiratory symptoms

E28: Managing long term conditions: integrated care and the promotion of self-care

Slido voting may be in use in this session

Exchange 11, upper level

THORACIC SURGERY FOR RESPIRATORY TRAINEES

Chaired by: Hema Chavan (London),
Dr Sheila Ramjug (Manchester) and
Samantha Sinclair (Glasgow)

1) Principles of lung resection
Professor Alan Kirk (Glasgow)
2) Surgical management of pleural disease
Miss Sofina Begum (London)
3) Interventions for airways disease
Mr Felice Granato (Manchester)

Learning outcomes

- To understand the indications for referring patients for thoracic surgical intervention.
- To become familiar with the types of surgical intervention that may be utilised in the management of patients with acute and chronic respiratory disease.
- To understand how to diagnose and manage the short-, medium- and long-term medical complications of thoracic surgical interventions.

Curriculum mapping

E2: Asthma

E3: COPD

E4: Thoracic oncology

E5: Thoracic surgery

E14: Disorders of pleura and mediastinum including pneumothorax

E22: Imaging techniques

F2: Respiratory physiology and lung function testing

Slido voting may be in use in this session.

SPEAKERS' DETAILS AND PRESENTATION SUMMARIES

Speakers and chairs are listed in alphabetical order, with summaries of presentations (where applicable) following after each biography.

Dr Charlotte Addy, a self-confessed sputumologist, is a respiratory physician based in Cardiff, with specialist interests in cystic fibrosis and bronchiectasis. She's been privileged enough to work in England, Northern Ireland and Wales, in both NHS and academic roles. Aside from her interests in lung infection, inflammation and clinical research, Dr Addy has keen interests in service development, education, training and workforce planning. A past Chair of the British Thoracic Society (BTS) Specialist Trainees Group, she is the current Chair of the BTS Workforce and Service Development Committee, sits on the BTS Board, Respiratory SAC and Welsh Specialist Training committee.

Managing difficult NTM-PD across disease spectrums: from cystic fibrosis to bronchiectasis

This talk will focus on using real world cases to illustrate the differing presentations, complexity and multi-disciplinary approach to management of NTM in people with CF and bronchiectasis.

It will explore:

- assessment and management of NTM pulmonary disease (NTM-PD) in individuals with chronic lung infection, including interaction with other pathogens;
- clinical approaches to addressing the biological, psychological and social aspects of managing NTM-PD in individuals with multi-system diseases;
- how to demystify the complexity of NTM in difficult cases as a trainee, and build confidence in managing NTM in real world scenarios.

Dr Ahsan Akram is a Cancer Research UK Clinician Scientist at the University of Edinburgh and Honorary Consultant in Respiratory Medicine in NHS Lothian. He completed a PhD in optical molecular imaging in 2015 and his clinical training in 2017. His research interests include understanding the mechanisms of immunotherapy failure in non-small cell lung cancer, with a focus on the tumour microenvironment as mediators of immune recognition evasion. He is also interested in developing and translating imaging techniques to patients to allow for better treatment stratification.

Pearlene Antoine-Pitterson, MRes, BSc, MCSP, is a CSP registered physiotherapist and the Acute Non-Invasive Ventilation Lead Physiotherapist at Birmingham Heartlands Hospital. Graduating from Keele University with a BSc in Physiotherapy, she went on to complete an NIHR awarded Master of Clinical Research. Pearlene serves currently as a member of the BTS Critical Care Specialist Advisory Group. She has specialist interests in complex ventilation, education and clinical research and improving the quality of respiratory care.

Alison Armstrong is the Nurse Consultant (Long Term Ventilation) within the North-East Assisted Ventilation Service, based at Newcastle upon Tyne Hospitals NHS Foundation Trust. She represents nursing on a number of groups. She has a national role as co-chair for the BTS Nurse Specialist Advisory Group, is an active member on their Education and Training Committee and co-organiser of the Acute and Home Mechanical Ventilation short course. Alison is the host of the Specialists in Long-term Ventilation at Home (SiLVaH) national network, which is a non-medical group for those working in the support of patients on home mechanical ventilation.

Alison has an MSc in Practice Development, and her main interest lies in assuring good quality of life for her complex client group.

Dr Lucy Baker is a Consultant Respiratory Physician at Lewisham and Greenwich NHS Trust, leading the TB and NTM Mycobacterial services and the Adult Cystic Fibrosis service. She undertook research into the molecular mechanisms of drug resistance in M. tuberculosis. She is appointed a Clinical Service Advisor to the BTS MDRTB Clinical Advice Service, and is an Honorary Senior Clinical Lecturer at Kings College London.

Chris Barber is a Respiratory Consultant with a clinical and research interest in occupational lung disease. His time is split between NHS clinical work in Sheffield and HSE sessions at the Centre for Workplace Health in Buxton. He is an Honorary Reader at Manchester University, and a member of the Group of Occupational Respiratory Disease Specialists (GORDS).

Introduction and epidemiology

Chris has recently chaired the BTS Occupational Asthma Clinical Statement Group and will give the first of three case-based talks on this topic.

Laura Barlow graduated from Keele University with a BN (Hons) in Adult Nursing in 2005 and has been in her current role as an Adult Cystic Fibrosis (CF) Clinical Nurse Specialist (CNS) at North West Midlands CF Centre for the past eight years. Laura's career in CF began in 2006 where she worked on the CF inpatient ward at Birmingham Heartlands Hospital until she moved to her CNS post in 2014. Laura is a non-medical prescriber and has enjoyed delivering clinical trials as part of her varied and extremely rewarding role.

Cystic fibrosis (joint presentation with Marc Cotterill)

Marc will give his personal experience of CFTR modulator therapy. Laura will then discuss:

- Kaftrio/Kalydeco therapy – experience and observations in our CF patient cohort at North West Midlands CF Centre.
- Changes in MDT approach to CF care since the introduction of Kaftrio/Kalydeco.
- How might CFTR modulators shape CF care in the future?

Dr Julian Barwell is a Consultant in Clinical Genetics, Division 3 Clinical Lead for the East Midlands Clinical Research Network and an Honorary Professor in Genomic Medicine at the University Hospitals of Leicester. He has a particular interest in the development and implementation of new digital and genomic technologies into 21st century healthcare.

Blood biomarkers – diagnosis in a bottle

In 'diagnosis in a bottle', Julian will discuss how new digital and genomic technologies and approaches can be used in lung cancer patients to move from classical Mendelian-based genetic testing for rare diseases, through advances in personalised medicine and oncology, onto more integrated data science and AI-algorithm based solutions for diagnostics, disease stratification and monitoring tumour progression and evolution. A vision for cancer care in the 21st century will be mapped out, opening up a debate as to whether patients, clinicians and commissioners will be comfortable with some of the challenges and opportunities that are likely to arise from liquid biopsies.

Dr Hussain Basheer is a Respiratory Physician in the Kent, Surrey and Sussex Deanery, currently residing at Maidstone and Tunbridge Wells NHS Trust. He is a vigorous flag-waver for multi-professional working and learning in busy healthcare environments and was lead-author for the Royal College of Physicians' publication "Never too busy to learn".

Dr Paul Beckett is Consultant Respiratory Physician at University Hospitals of Derby and Burton. He was a clinical lead for the National Lung Cancer Audit for more than 10 years, has served as a member of the BTOG steering group and as chair of the BTS Lung Cancer and Mesothelioma SAG. He has spent the last few years as one of the clinical leads for the Getting It Right First Time (GIRFT) lung cancer workstream, combining both theoretical and practical experience in delivering service improvement.

Miss Sofina Begum received her medical degree from the University of Leicester in 2004. During that time, she finished an intercalated BSc in cardiovascular science and went on to complete her basic surgical training in London. Miss Begum achieved her master's degree in surgical science then went on to higher surgical training in Yorkshire. This included training in uniportal minimally invasive surgery (keyhole) for lung cancer and lung volume reduction. She is also trained in endobronchial procedures for airways disease and severe emphysema.

Since 2017, Miss Begum has been a Consultant at the Royal Brompton Hospital.

Miss Begum's areas of expertise include: adult and paediatric thoracic surgery; surgery for primary lung cancer including lobectomy and segmentectomy performed via a uniportal video-assisted thoracoscopic surgery (VATS) approach; primary and metastatic chest sarcoma; surgery for advanced emphysema; surgery for pneumothoraces and pleural effusions; surgery involving the mediastinum; and airway stenting.

Miss Begum's research interests include: lung volume reduction surgery; minimally invasive surgery for early-stage lung cancer; and chest wall sarcomas.

She is currently overseeing the development of a web-based patient education platform.

Professor Charlotte Bolton is Professor of Respiratory Medicine at the University of Nottingham. Her clinical focus is COPD and her research has been on the extrapulmonary manifestations of chronic respiratory disease and pulmonary rehabilitation. In addition, she is interested in the long-term respiratory sequelae of being born preterm, recovery after COVID-19 and also global lung health challenges. She chairs the BTS COPD Specialist Advisory Group and sits on the Lung Taskforce Diagnostic Group and the NACAP COPD Advisory Group.

Dr Lisa Jane Brighton is a health services researcher with a background in psychology, based at the Cicely Saunders Institute of Palliative Care, Policy and Rehabilitation, King's College London. Her research focuses on developing and evaluating complex interventions in respiratory care, including adapting pulmonary rehabilitation for people with COPD and frailty.

Frailty in COPD

An estimated 1 in 4 people with chronic obstructive pulmonary disease (COPD) are also living with frailty. This presentation will highlight how this complex, multidimensional syndrome can impact people with COPD, including interacting with their experiences and outcomes of pulmonary rehabilitation. Drawing on recent and emerging evidence, the presentation will also outline core principles to consider when delivering pulmonary rehabilitation for this population, alongside practical examples.

John Britton is Emeritus Professor of Epidemiology at the University of Nottingham and a former Consultant in Respiratory Medicine at Nottingham City Hospital. He served as a topic expert on the NICE committee which produced updated smoking cessation guidance, including the use of e-cigarettes, in 2021.

E-cigarettes in the treatment of tobacco dependency: an update from NICE

In 2021, NICE published new guidance on preventing smoking uptake and helping existing smokers to quit. The guidance explicitly endorses nicotine-containing e-cigarettes as an effective, and highly cost-effective, smoking cessation aid. In this presentation, Professor Britton will summarise the evidence used by NICE in reaching this recommendation, and attempt to place this recommendation in the wider context of national and international tobacco control policy.

Dr Daniele Bryden is a Consultant in Intensive Care Medicine in Sheffield and is Vice Dean of the Faculty of Intensive Care Medicine. She has a qualifying law degree and a masters in medical ethics and law. Her clinical and research interests are focused on decision making and frailty assessment in critical care.

Danny is a member of FICM's Legal and Ethical Policy Unit and has co-written a number of the Faculty's 'Midnight Law' series providing advice and emergency guidance for clinicians facing difficult dilemmas in critical care. She has contributed to NICE guidance on decision making and chaired an RCP working party to develop an implementation toolkit for professionals and the public to facilitate decision making during the pandemic. She provides advice to the Courts (Ferreira 2017) and the UK and Welsh Parliament on intensive care treatment matters.

Ethical and legal decision making in critical care: the implications of escalation decisions

Dr Bryden will look at who should be involved in making decisions about admission to critical care and what factors are known to influence those decisions. The talk will be based on an analysis of current statute and caselaw as well as evidence from relevant research studies. This presentation will aim to allow participants to be better informed about decision making in their own practice and how they can best advise patients and work with the critical care team when making difficult decisions.

Jen Butler is a highly specialist speech and language therapist for complex laryngeal disorders at Newcastle Hospitals. She leads continuous laryngoscopy assessments to support differential diagnosis and personalised treatment planning. Jen is also a guest lecturer at Newcastle University and contributed to the RCSLT position paper for Upper Airway Disorders.

Nurse and allied health professional treatable traits asthma clinic (joint presentation with John Davison and Paul McCallion)

This presentation will focus on a treatable traits approach to complex lung disease – a strategy where patients are individually assessed for a specified set of treatable problems, and an individualised treatment programme is developed and implemented based on this multidimensional assessment. We will explore the role of each healthcare professional and how their role impacts on patient care. We will identify some of the co-morbidities associated with complex lung disease and how they can be managed. There will be a focus on multi-disciplinary working, patient education and support and deprescribing. The presentation will include case studies and a Q&A.

Mat Callister is a Consultant Respiratory Physician at Leeds Teaching Hospitals and an Honorary Professor of Respiratory Medicine at the University of Leeds. His research interest is the early diagnosis of lung cancer both through low-dose computed tomography screening and symptomatic presentation.

Targeted Lung Health Check: lessons learnt from the first wave pilot sites

The session will review progress of the NHS England Targeted Lung Health Check (TLHC) programme, comprising low-dose computed tomography (LDCT) screening for lung cancer, smoking cessation interventions and initially screening spirometry. The first phase of TLHCs commenced at 23 sites between 2019 and 2021, with a second phase announced in 2021. The session will also discuss the outcome of the UK National Screening Committee's recent review of LDCT screening (currently out for consultation) which proposes that the TLHC programme provides a feasible, practical and effective approach to the implementation of lung cancer screening in the UK.

Hemangi Chavan is a Senior Advanced Practitioner for Thoracic Surgery at the Royal Brompton Hospital. She has a vast experience working in cardiothoracic surgery and critical care. She is also an active member of the Society for Cardiothoracic Surgery UK and an SCTS NAHP Audit Lead involved in national audit projects. She is currently doing her PhD and her primary research focuses on early-stage lung cancer, patient and health care professional's experiences and their involvement in treatment decision-making.

Dr Meg Coleman studied medicine at University College London and graduated in 2002. She undertook specialist training in Northwest London, including a year working and teaching in Malawi. She joined Imperial College Healthcare NHS Trust as a Respiratory and General Internal Medicine Consultant in 2017. Dr Coleman has a subspecialty interest in respiratory infections particularly TB, bronchiectasis and fungal lung disease. She is an Honorary Clinical Senior Lecturer at Imperial College London.

Josie Cunningham is the Lead for Quality Improvement and trained as a pharmacist at University of Reading. She was a respiratory specialist pharmacist before moving to the Cystic Fibrosis Unit.

She is an independent prescriber based at the Adult Cystic Fibrosis Unit at Frimley Park Hospital in Surrey.

Annant Damani is a Cystic Fibrosis Specialist Pharmacist and completed his training at Bath and London universities. His clinical background is an antimicrobial and respiratory pharmacist before specialising in cystic fibrosis. He is an independent prescriber based at the Adult Cystic Fibrosis Unit at Frimley Park Hospital in Surrey.

Fantastic-Pharm (joint presentation with Annant Damani and Josie Cunningham)

Are you enabling everyone in your team to work to their full potential? Learn about the role of embedded pharmacists within a clinical team. Two pharmacists will share their experiences of the value added by specialist pharmacists within the adult cystic fibrosis team at Frimley Park Hospital. Through a case study they will explore the various clinical areas where a pharmacist can make interventions, support the wider team and ensure you are providing the highest level of care for your patients.

Liz Darlison MBE has enjoyed over 37 years of clinical practice at the University Hospitals of Leicester, and it was from there that she established Mesothelioma UK, a national charity for mesothelioma. Currently she is a Consultant Nurse at UHL and is also CEO at Mesothelioma UK. Liz has Honorary university positions in both Leicester and Sheffield, is very research active, keenly promotes nursing as a career and engages in pre and post graduate education.

In the 2019 Queen Elizabeth's Birthday honours list Liz was invited to become a Member of the British Empire (MBE) in recognition of her services to patients and cancer research.

Gerry Davies is Professor of Infection Pharmacology and Honorary Consultant in Infectious Diseases at the University of Liverpool. He is Tuberculosis Lead for Liverpool and an advisor on the BTS MDR-TB Clinical Advice Service. He is an expert in PK-PD analysis and evidence synthesis in tuberculosis treatment and has extensive experience of Phase II and III clinical trials in tuberculosis in differing roles. He has been prominent in key international drug development consortia, including PreDiCT-TB and UNITE4TB, and has served on numerous WHO policy taskforces and guidelines development groups over the last decade related to treatment of tuberculosis.

New drugs and shorter treatments for drug-resistant TB

Treatment of MDR-TB poses perhaps the toughest challenge in antibacterial therapy worldwide. Treatment regimens of up to two years with as many as seven drugs were until recently the standard of care, with suboptimal outcomes and significant risks of serious toxicity for MDR-TB sufferers, only a fraction of whom could access this costly treatment globally. In the last five years, there have been major advances in this area with shorter, more effective and safer regimens becoming available. This talk will cover these exciting research developments, changes in guidelines and what the future may hold for physicians and patients.

Dr Rachel Davies, PhD FRCP, is a Consultant Pulmonologist in the National Pulmonary Hypertension Service, Hammersmith Hospital, London and Honorary Senior Lecturer at Imperial College. She has particular responsibility for running the genetics, transplant and pregnancy arms of this service. She also has a keen interest in medical education and has been the Training Programme Director of the NW Thames Respiratory Medicine Specialty Programme since 2021. Dr Davies is Vice Chair of the JRCPTB Respiratory SAC. She is actively involved in teaching as well as being an author of the best-selling revision guide for MRCP, Cases for Paces. She is also an active member of the BTS, serving on Council, QI and Nominations Committees and the Pulmonary Vascular SAG.

John Davison is a Senior Clinical Nurse Specialist working in the Newcastle Hospitals NHS Foundation Trust specialising in bronchiectasis and severe asthma. Operating independently, and alongside respiratory consultants, he manages patients with severe infective lung disease and severe asthma specialising in a treatable traits approach to symptom management.

Nurse and allied health professional treatable traits asthma clinic (joint presentation with Paul McCallion and Jen Butler)

This presentation will focus on a treatable traits approach to complex lung disease – a strategy where patients are individually assessed for a specified set of treatable problems, and an individualised treatment programme is developed and implemented based on this multidimensional assessment. We will explore the role of each healthcare professional and how their role impacts on patient care. We will identify some of the co-morbidities associated with complex lung disease and how they can be managed. There will be a focus on multi-disciplinary working, patient education and support and deprescribing. The presentation will include case studies and a Q&A.

Dr Miguel Debono MD FRCP PhD is a Consultant in Endocrinology and Honorary Senior Lecturer in Sheffield Teaching Hospitals and the University of Sheffield, UK. His speciality interests and publications focus on adrenal disorders and steroids. He has occupied prominent roles on NIHR UK academic pathways and been awarded an NIHR Biomedical Research Fellowship and an Endocrine Society and European Society of Endocrinology International Endocrine Scholarship. He secured SFE grants to carry out research work at the NIH in the USA and is a member of the Steroid Emergency Card Working Group of SFE. He holds an NIHR RfPB grant to investigate for the presence of adrenal insufficiency using novel techniques.

High dose inhaled steroids: is there a risk of adrenal insufficiency?

Steroid induced adrenal insufficiency is common. 3% of the population are on systemic steroids and up to 50% of these can have adrenal suppression based on meta-analysis. In addition, up to 20% of patients on steroid inhalers usually on doses of fluticasone >500micrograms/day or beclomethasone/budesonide >1000micrograms/day can have adrenal suppression. Adrenal insufficiency increases patient morbidity and mortality. Quality of life is poor. 6 to 8% of patients every year have an adrenal crisis. Patients on high dose steroid inhalers at risk of adrenal suppression should carry a steroid emergency card and advice on how to detect and prevent an adrenal crisis is crucial. Challenges still exist on how to manage these patients.

Professor Christopher Denton PhD FRCP, is Professor of Experimental Rheumatology at University College London (UCL) and a Consultant Rheumatologist at the Royal Free Hospital in London. He has published extensively on laboratory and clinical aspects of connective tissue disease. He leads a large clinical and translational research programme in scleroderma at the Royal Free Hospital and co-ordinates multidisciplinary care for more than 1500 patients.

Professor Denton currently chairs the UK Scleroderma Study Group (UKSSG). He delivered the BSR Heberden Round at the Rheumatology Conference in Birmingham, 2017. He is Associate Editor for Arthritis Research and Therapy and previously served as President of the Scleroderma Clinical Trials Consortium (SCTC) and a Counsellor and Treasurer of the European Scleroderma Trials and Research Group (EUSTAR).

Claire Donaldson has worked as nurse in the NHS for 43 years, working at the Newcastle upon Tyne Hospitals. She has a background in cardio-thoracic surgery, including cardio-pulmonary transplantation, before switching to respiratory medicine. In this specialty, she worked as a Nurse Specialist in Lung Cancer for 12 years. Nearly 10 years ago, she began working at the Chest Clinic at the RVI. This was mainly with CF patients, before switching to the ILD service and, at that time, she was the only ILD Nurse Specialist within the North East region.

Outside of work, Claire loves gardening and has an allotment (no flat cap or whippet dog); it's great up North.

Professor Morag Farquhar is Professor of Palliative Care Research at University of East Anglia (UEA). She has worked in health services research for over 30 years, predominantly in supportive and palliative care, within the universities of London, Manchester, Cambridge and UEA. An early graduate nurse by background (King's College London), with an MSc in Medical Sociology, her PhD (University of London) addressed the definition and measurement of quality of life in older people. Research interests include breathlessness in advanced disease, informal carers, and developing and testing of interventions using mixed methods.

What is breathlessness? (joint presentation with Dr Charles Sharp)

An important component in understanding breathlessness management is to understand the different perspectives from which it can be viewed. This session will explore patient and carer experiences of chronic breathlessness, in addition to clinician perspectives in a discussion to improve general understanding of this challenging symptom.

The approach to the management of an anxious breathless patient (joint presentation with Karen Heslop-Marshall)

The aim of this session is to understand the approach and management of the breathless patient using the cognitive behavioural therapy (CBT) model. The CBT model helps explore patient's physical symptoms, what they think, how it makes them feel (emotionally) and what they can do to manage this. Key strategies are explored to help address the symptoms of anxiety and breathlessness in patients, including supporting their informal carers. The session therefore also explores the role of carers in supporting breathless patients, and identifies evidence-based resources to enable them to fulfil that role.

Johanna Feary is an Honorary Respiratory Consultant at Royal Brompton Hospital and Senior Clinical Research Fellow at the National Heart and Lung Institute, Imperial College, a combination of roles that allows her to carry out clinical work and research, as well as teaching. Her clinical interests include a broad range of occupational lung diseases and asthma. She is Chair of the British Thoracic Society Specialist Advisory Group on Occupational and Environmental Disease and a member of the Group of Occupational Respiratory Disease Specialists (GORDS).

Managing and predicting prognosis

In this third talk highlighting key aspects of the new BTS Clinical Statement on Occupational Asthma, the focus will be on management of OA. Up to 1 in 6 cases of asthma may be attributable to work. It is therefore important that all respiratory health care professionals have an understanding of the potential options and pitfalls that can arise in management of cases; many of which are unique to OA. It will also outline the different determinants of good outcomes in occupational asthma.

Lewis Gidden is a Clinical Scientist registered with the HCPC and has been working at Worcestershire Royal Hospital as a Respiratory Physiologist since 2015. He started in the lung function and sleep laboratory as a trainee on the NHS Scientist Training Programme, which combined on the job training while completing an MSc in Clinical Science at Newcastle University. He is now the Sleep and Ventilation Service Lead as well as playing a lead role in teaching and training within the cardiopulmonary department.

A specialist trainee guide to non-routine tests in respiratory physiology

The aim of this talk is to introduce the audience to other less well-known diagnostic tests available in most lung function laboratories. This will include non-invasive respiratory muscle function testing, bronchial challenge testing used in the identification of hypersensitive airways, and hypoxic challenge testing for the assessment of supplemental oxygen requirements for air travel. The talk will cover the underpinning respiratory physiology, indications for testing, a brief overview of how each test is performed and will finish with the all-important interpretation of results.

Deepa Gopalan is the Head of Specialty for Cardiac Imaging at Imperial College London and the Educational Lead for the British Society of Cardiovascular Imaging. She is also an Associate Lecturer at Cambridge University, Honorary Senior Lecturer at Imperial College and Academic Associate at the Karolinska Institute, Stockholm, Sweden.

She has published widely on her specialist subjects (pulmonary hypertension and non-invasive cardiac imaging) and frequently participates as a speaker at national and international cardiovascular conferences.

The radiological manifestations of thromboembolic disease: how to interpret the CTPA at 3am

This talk will elaborate the differences between acute and chronic thromboembolic disease on CTPA and highlight the importance of knowledge of potential false-positive findings.

Learning objectives:

1) Acute and chronic thromboembolic disease have different histopathological and radiological characteristics. It is critical to make the differentiation between the two conditions as treatment options are very different.
2) Performing a methodical review of the pulmonary vasculature, cardiac morphology and the lung parenchyma is necessary to exclude a false positive diagnosis of PE.

Lizzie Grillo is an Advanced Physiotherapist at the Royal Brompton Hospital and NIHR Fellow at Imperial College London, completing a PhD. She has worked in adult respiratory medicine for over 15 years and has a special interest in the assessment and treatment of complex breathlessness. In addition to the BTS, she is a member of the ACPRC and Physiotherapy for Breathing Pattern Disorders Special Interest Groups. Her PhD aims to investigate the Assessment of Breathing Pattern Dysfunction.

The management of a breathlessness patient: physiotherapist approach

This presentation aims to demonstrate the role of a physiotherapist in the assessment of breathlessness and share the non-pharmacological treatments that may be applied to patients with chronic breathlessness.

Dr Harsha Gunawardena MBChB(Bristol), MRCP(UK), PhD, is a Consultant Rheumatologist and Honorary Senior Lecturer at North Bristol NHS Trust and University of Bristol. He leads the Bristol Connective Tissue Disease and Vasculitis Clinical Programme and is an integral member of the Bristol-ILD service. He has a clinical and academic interest in autoimmune CTD and vasculitis. His PhD was on the identification of novel autoantibody markers in myositis syndromes including ILD phenotypes. He has published widely in myositis overlap syndromes and CTD-ILD. He is a lead member of UK Myositis Network, British Society of Rheumatology Myositis Guidelines and Education Heberden Committee.

Case-based presentation on auto-antibodies in CTD-ILD

Interstitial lung diseases (ILD) are a heterogenous group of diffuse parenchymal lung disorders and a common manifestation of autoimmune connective tissue disease (CTD). In some

patients, ILD is associated with a clear overlap rheumatological clinical spectrum, whereas in some cases it is the presenting or dominant feature. A prompt and correct diagnosis of CTD-ILD is paramount, as early recognition and intervention is essential to deliver an optimal patient pathway and clinical outcomes. Clinical evaluation of pulmonary and extra-pulmonary disease requires complimentary robust autoimmune serological testing. Over the last few years, clinic-serological CTD-ILD phenotypes have been more clearly defined with autoantibody interpretation forming an important component of multidisciplinary evaluation of this complex group of patients. In this talk, Dr Gunawardena will discuss interpretation of autoantibody testing and present case examples to highlight diagnostic utility in the clinic, so clinicians can adopt a more refined diagnostic approach when managing a patient with CTD-ILD.

Objective 1: understand ANA and extended autoantibody testing and interpretation.

Objective 2: to recognise hallmark CTD-ILD clinical syndromes with case examples from the clinic.

Dr Rob Hallifax is an NIHR Academic Clinical Lecturer at the University of Oxford. He studied an MSc in natural sciences in Cambridge before training in medicine at the University of Oxford. He won an MRC Clinical Training Fellowship for his DPhil: "Understanding Pneumothorax: epidemiology, physiology and outcomes". Dr Hallifax was the trial coordinator for RAMPP (Randomised Ambulatory Management of Primary Pneumothorax) – the largest primary pneumothorax trial in Europe. He has recently published on pneumothorax in JAMA and Lancet. His Twitter handle is #DrHallifax

Optimal management of primary and secondary pneumothorax in 2022

This presentation will cover the epidemiology and management of spontaneous pneumothorax, with particular focus on evidence from recent trials in Primary and Secondary Spontaneous Pneumothorax. Dr Hallifax will highlight best practice and areas of remaining controversy, including upcoming clinical trials in the UK.

Curriculum points: Evidence and Guidelines, Applying Knowledge and Evidence, Disorders of the Pleura.

Dr Alanna Hare is a Consultant in Sleep and Respiratory Failure at the Royal Brompton Hospital in London. She graduated from Selwyn College, University of Cambridge in 1999, and completed her postgraduate training at Imperial College London in 2002.

She is Chair of the British Thoracic Society Education and Training Committee and Treasurer of the British Sleep Society. She sits on the Board of the Sleep Council. She was made Honorary Clinical Senior Lecturer at NHLI in 2018.

Karen Heslop-Marshall is a Nurse Consultant from Newcastle upon Tyne and has worked in the chest clinic for over 30 years. She has represented nurses on several national groups and BTS committees. Karen is currently co-chair of the BTS Nurses Specialist Advisory Group and Chair of ARNS Education and Research Committee.

Karen's main area of expertise is the psychological impact of respiratory disease. Karen completed a postgraduate diploma in cognitive behavioural therapy (CBT) in 2003, developed a CBT treatment for respiratory patients and completed a NIHR PhD Fellowship in 2016. Karen continues to undertake clinical research in CBT and behavioural activation.

The approach to the management of an anxious breathless patient (joint presentation with Morag Farquhar)

The aim of this session is to understand the approach and management of the breathless patient using the cognitive behavioural therapy (CBT) model. The CBT model helps explore patient's physical symptoms, what they think, how it makes them feel (emotionally) and what they can do to manage this. Key strategies are explored to help address the symptoms of anxiety and breathlessness in patients, including supporting their informal carers. The session therefore also explores the role of carers in supporting breathless patients, and identifies evidence-based resources to enable them to fulfil that role.

Leanne-Jo Holmes has recently taken up the postition as the first UK Severe Asthma Nurse Consultant within the Manchester Severe Asthma Service. Prior to this she has spent the last 14 years working as a Severe Asthma Clinical Nurse Specialist leading in the delivery of specialist treatments and care to patients affected by this disease. Leading in service change and implementation of care pathways, Leanne is dedicated to promoting the delivery of high standards of care to individuals living with severe asthma.

Leanne chairs the North West Severe Asthma Regional MDT and sits on the committee of the Severe Asthma National Network, BTS Asthma Specialist Advisory Group and BTS Nurse Specialist Advisory Group, has presented and chaired both nationally and internationally at conferences and led and co-authored publications within severe asthma.

Leanne works passionately as her patient advocate to provide the best care possible for patients affected physically and psychologically by severe asthma. Leanne's special interests include adherence, the care of young adults with severe asthma, promoting shared decision making, patient empowerment, and nurse led research. Leanne undertook the first empirical study exploring the impact of severe asthma upon intimacy and relationships, providing a valuable insight into an important yet rarely discussed topic in asthma identifying that living with severe asthma can impose a significant emotional burden alongside physical limitations.

Leanne's greatest job satisfaction comes from working face to face with patients and she fervently believes specialist nurses can make a significant positive impact for their patients and quality of life.

Dr Steve Holmes has been a GP with a respiratory interest for more than 30 years, a previous chair of PCRS and working with the BTS on asthma guidelines, IMPRESS and other guidelines. He has worked as a regional clinical lead (South West) twice and within his local CCG area (Somerset) for more than 15 years. Steve has been involved in many NHS Quality Improvement initiatives and as a previous regional chair of the BLF - has worked to ensure improved patient care. Steve has been involved in more than 250 publications.

Remote COPD working: new ways of delivering chronic disease management

This presentation will look at remote COPD working covering systems to evaluate benefit (for example patient, clinician and managerial benefits). It will look at some of the new technologies, new use of established technologies and wider use of well recognised methods to deliver care. There will be a structure to help to analyse potential new developments in the work environment as we move forward, and what we know of the implications of remote working and health inequalities. This session will cover perspectives from introducing and working with remote COPD working and in the wider context of chronic disease management from a system wide perspective.

Susan Hope qualified as a State Registered Nurse in 1981 in North Staffordshire and worked in a variety of nursing roles in the UK, Switzerland, India and Australia. She became the first Respiratory Clinical Nurse Specialist in North Staffordshire and for over 24 years specialised in NIV and CPAP, asthma, COPD and ILD and latterly cystic fibrosis. She has a keen interest in education and has an MA in Education in Respiratory Health Care and has worked as a regional trainer and associate tutor for several respiratory education organisations. She has been a nurse member of the BTS since 1992 and has been a nurse member of the COPD Specialist Advisory Group and currently the Nurse SAG.

Dr Jennifer Hoyle MD, M dip Occ Med, FRCP, is a Respiratory Consultant for Manchester Foundation NHS Trust and has been Clinical Lead for the Respiratory Strategic Clinical Network in Greater Manchester since July 2018.

Dr Hoyle is a member of the Industrial Injuries Advisory Council, The Group of Occupational Respiratory Disease Specialists UK and European Respiratory Society Occupational Group. As an Honorary Senior Lecturer in Occupational and Environmental Lung Disease at Manchester University, she has a career-long specialist interest in work and its effects on lung disease and is a member of the Surveillance of Work-related Occupational Respiratory Disease Committee (SWORD).

Dr David Jackson MBBS MRCP MSc PhD, is an Associate Professor in Respiratory Medicine at King's College London and Clinical Lead of the Severe Asthma and Eosinophilic Lung Disease Service at Guy's and St Thomas' Hospitals in London.

Dr Jackson has an MSc in Allergy and a PhD in the pathophysiology of asthma exacerbations from Imperial College London. He is the Associate Editor at Thorax, Allergy and Reviews Editor at CHEST, and has published widely in the field of type 2 immunity, biologic therapies in asthma, and the mechanisms of virus-induced asthma exacerbations.

Reducing OCS use in asthma: the era of asthma biologics

Systemic steroids have traditionally been the mainstay of treatment for severe asthma but cause considerable harm to patients. As such they must only be used for appropriate patients where there is clear evidence of uncontrolled Type 2 airways inflammation that persists despite adherence to high dose inhaled steroids. Over the last decade, biologic therapies have revolutionised the care of severe asthma and allowed such patients to be managed in the absence of systemic steroids. This lecture will summarise the approach to achieving steroid stewardship through use of T2 biomarkers and currently available biologic therapies.

Dr Akhilesh Jha is a Clinical Lecturer in Experimental and Respiratory Medicine at the University of Cambridge. His research uses human challenge models to investigate innate immunity to viral infection and its dysregulation in airway disease, for which he was awarded the Royal Society of Medicine's Young Respiratory Investigator Award. He is a member of the BTS Science and Research Committee and a Junior Editor-in-Training for the American Journal of Respiratory and Critical Care Medicine. He is keen to develop a national network of respiratory early career professionals for collaborative research projects.

INSPIRE Research Network 2022 update – Opening of the November 2022 Sandpit event

INSPIRE is a new UK-wide research network supported by NIHR and BTS for early career respiratory researchers to develop collaborative research projects and develop their research skills. In this session you will (a) hear about how to get involved in INSPIRE, (b) receive an update on the projects that were initiated this year and (c) find out about plans for the next Sandpit event.

Miriam Johnson is Professor of Palliative Medicine at Hull York Medical School, Director of the Wolfson Palliative Care Research Centre at the University of Hull, and Adjunct Professor at the University of Technology, Sydney, Australia. Her interests include mechanisms and management of breathlessness. For 20 years she was also a Consultant Palliative Physician.

Pharmacological palliation of chronic breathlessness: opioids, antidepressants and benzodiazepines

Chronic or persistent breathlessness despite optimal treatment of the underlying disease is disabling and restricting for the patient and their family caregivers. The mainstay of management is non-pharmacological, but some people, particularly with very advanced disease, are still seriously symptomatic for whom pharmacological interventions might be helpful. In this presentation Professor Johnson will summarise the current knowledge regarding opioids, antidepressants and benzodiazepines regarding effectiveness, safety, dosing and remaining unanswered questions in practice.

Sarah Johnstone DipHE Nursing, BA (Hons) Health Care Practice, is a Pleural Nurse Specialist at Glenfield Hospital, Leicester. She qualified as a registered nurse in 1998 and has worked in general and respiratory medicine for 24 years, taking on senior sister roles before specialising in 2017. She strives to continuously develop her role and expertise for the benefit of patients and the pleural service within Leicester.

Role of the pleural nurse specialist

Learning aims:

1) To understand the breadth of the pleural nurse specialist role.
2) To be aware of the role of the pleural nurse specialist from differing perspectives and viewpoints.
3) To recognise the potential growth and development of the pleural nurse specialist role in the future.

Dr Thomas Jones is an ST5 Registrar in Wessex deanery, currently working at Portsmouth Hospitals University NHS Trust, and a member of the INSPIRE committee, running the website. He is a trainee representative for Wessex deanery, and member of the NIHR Respiratory National Specialty Group. His clinical interests are in airways disease, particularly severe asthma.

How can you contribute to INSPIRE?

An introduction to the INtegrated reSPIratory REsearch collaborative (INSPIRE) including the network's aims, current activities and how to take part or support trainees in taking part.

Mark Juniper is a Respiratory Consultant in Swindon and the current Chair of the BTS Quality Improvement Committee. He has spent a lot of the last ten years working in quality improvement, running an improvement programme in his own hospital as well as having roles at the West of England Academic Health Science Network (WEAHSN) and the National Confidential Enquiry into Patient Outcome and Death (NCEPOD).

Sarah Kearney is Lead Respiratory Clinical Nurse Specialist, Isle of Wight NHS Trust. She qualified in 1992 at the Royal London Hospital and has worked as a respiratory specialist since 1998. Her main areas of interest are COPD, oxygen and interstitial lung disease. She has studied for a BSc with Respiratory Education UK, is a non-medical prescriber and has commenced study at MSc level.

Sarah leads a small integrated, multi- disciplinary team, providing pulmonary rehabilitation, home oxygen assessment and community respiratory nursing. She is the lead for long COVID, COVID oximetry, virtual wards, home oxygen and PR. She delivers advanced communications skills training across the organisation and is passionate about managing breathlessness. Sarah is the Treasurer and Executive Board member for ARNS.

Joe Kibbler is a respiratory trainee currently working as a teaching and research fellow at Northumbria NHS Foundation Trust and undertaking a PhD at Newcastle University. His research investigates the diagnosis and treatment of cardiac disease in COPD. He is co-vice chair of INSPIRE, the UK early career respiratory research network, and vice chair of TERRANE.

Update on a national collaborative project – ERUPT thrombolysis in PE study (joint presentation with Ruth Sobala)

The UK's early career respiratory research network (INSPIRE) is undertaking its first national collaborative projects. We introduce ERUPT: a UK-based observational study evaluating pulmonary embolism (PE) thrombolysis. This multi-centre study will describe the frequency of full- and half-dose thrombolysis for massive and sub-massive PE. It will analyse patient outcomes, delivering real-world data into current practice, and lay the foundations for a UK based PE registry.

This session will provide an update on ERUPT, with a focused Q&A session. We hope to capture your interest and involvement in this much needed study. PE thrombolysis decisions can be challenging. Can you help advance clinical practice and improve patient care in this key area?

Professor Onn Min Kon is a Respiratory Physician and Head of Service of the TB Service at Imperial College Healthcare NHS Trust. He is President-Elect of the British Thoracic Society and chairs the British Thoracic Society Joint Tuberculosis Committee as well as the National MDRTB Clinical Advice Service. He is Professor of Respiratory Medicine at Imperial College and has interests in respiratory infections and the clinical and immuno-diagnosis of TB, the delivery of care and management of TB. Professor Kon organises the annual London Advanced TB course.

Complex TB – cases from the BTS MDR TB Clinical Advice Service

Professor Kon will present cases discussed within the MDR TB Clinical Advice Service MDTs to illustrate the complex dilemmas and treatment approaches in drug resistant TB as well as NTM cases.

Chris Kosmidis MD, PhD is an Infectious Diseases Physician and Senior Lecturer in Infection at the University of Manchester. His main clinical and research interests are fungal infections, respiratory infections and infections in the immunocompromised host.

He completed a PhD in the subject of gram-negative bacterial resistance in the University of Athens, was trained in Internal Medicine at the University of Athens and in Infectious Diseases at Wayne State University, Detroit, USA, where he worked on efflux-related resistance mechanisms in Staphylococcus aureus. He subsequently worked as clinical fellow at St George's University Hospital and Addenbrooke's Hospital, and has been a Consultant at Manchester University NHS Foundation Trust since 2014.

Chronic pulmonary aspergillosis – who/when to treat and how to monitor response

Chronic pulmonary aspergillosis (CPA) is an increasingly recognised entity, mainly affecting patients with underlying lung disease like COPD and prior TB. Management is challenging due to its chronic, indolent nature and presence of comorbidities: treatment is long-term, relapses are common and response rates to antifungals are only around 60%. In addition, treatment outcome measures have not been well defined, and consist of a combination of clinical, radiological and serological criteria. Radiological response, assessed at 6 months by CT scan, as well as quality of life scores such as the St George's Respiratory Questionnaire, are the main means of monitoring response.

As Aspergillus is an opportunistic fungus, unrecognised immune defects have been postulated in CPA patients, suggesting a potential role for immunotherapy in CPA.

Dr Will Lester MBChB(Hons), BSc, FRCP, FRCPath, PhD, is a Haematology Consultant at University Hospitals Birmingham and Birmingham Women's Hospital and is an Honorary Senior Clinical Lecturer in the Institute of Cardiovascular Sciences, University of Birmingham. His interests include thrombosis and haemostasis, obstetric and general haematology.

The management of pulmonary embolism in special populations (2): thrombophilia, antiphospholipid syndrome and patients at high risk of bleeding

This presentation will review the clinical utility of 'thrombophilia' testing, when modifications to standard anticoagulation are required and finally the assessment and interventions available for patients at high risk of bleeding.

Professor Wei Shen Lim is Consultant Respiratory Physician at Nottingham University Hospitals NHS Trust and Honorary Professor of Medicine, University of Nottingham. He is Chair of COVID-19 Immunisation on the Joint Committee of Vaccination and Immunisation (JCVI), UK and a member of various national pandemic advisory groups including the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) to the Chief Medical Officer for England. He was Chief Investigator of the hibernated ASAP Trial of Dexamethasone in Pandemic Influenza (2012 – 2022), and co-led the evaluation of Dexamethasone for COVID-19 in the RECOVERY TRIAL. In 2016, he was awarded the British Thoracic Society Meritorious Award for contributions towards respiratory infections, and in 2021 the Moxon Medal by the Royal College of Physicians.

Science and the crystal ball of COVID-19 vaccination

Scientific uncertainty is one of the hallmarks of a pandemic involving a novel pathogen. This presentation will include a look back on selected aspects of the COVID-19 vaccination programme and how vaccine advice developed in the face of evolving scientific information, followed by a look forwards at anticipated future challenges.

Dr Lola Loewenthal is a Respiratory Registrar in South Thames, London and is Chair of the BTS Specialty Trainees Advisory Group (STAG). She is currently undertaking a PhD immunophenotyping severe asthma at the National Heart and lung Institute, Imperial College London and Royal Brompton Hospital. She has completed the National Medical Director Clinical Fellowship at the Faculty of Medical Leadership and Management (FMLM) and has a Master's in Clinical Education.

Dr Kirsti Loughran is a post-doctoral research fellow at Teesside University. Her current research is focused on understanding balance impairment in people with COPD in order to co-produce a tailored balance intervention.

Kirsti completed a BSc (hons) in Physiotherapy in 2003 at University of East London. She worked clinically at Barts and the London NHS Trust and Newcastle Hospitals across various respiratory specialities, oncology, infectious diseases and specialist palliative care, and completed an MClinRes (Aging) at Newcastle University in 2016. Kirsti then completed her PhD investigating the impact of pain on falls risk, balance, and gait in people with COPD. Kirsti's research interests are supporting people to live well with chronic diseases, including respiratory disease.

Rehabilitation of balance impairment in COPD

This presentation will discuss the evidence underpinning falls risk and balance impairment in people with COPD. Guidance on screening for falls risk and balance impairment and assessment of balance impairment in people with COPD will be suggested. The current evidence on balance training for people with COPD will be presented.

Dr Mathew Maddocks is a Reader in Health Services Research at King's College London and Specialist Physiotherapist in Palliative and End of Life Care. He has held National Institute of Health Research post-doctoral, clinical trials, and career development fellowships. He leads a team currently undertaking clinical research to advance rehabilitation and palliative care for people with serious illness, particularly for complex symptoms and syndromes including cachexia, sarcopenia, and frailty.

Sarcopenia in COPD

This presentation will examine the concept of sarcopenia, how it can be assessed, and how it relates to pulmonary rehabilitation engagement and outcomes for patients with COPD. It will outline relevant research in this topic and consider how interventions may be better attuned to sarcopenic individuals.

Dr Zaheer Mangera is Chair of the British Thoracic Society Specialist Advisory Group for Tobacco Dependence and the BTS Tobacco Dependency Project Steering Group. Zaheer has also previously led the BTS National Smoking Cessation Audit. He works as the Lung Cancer Lead at North Middlesex University Hospital with an interest in EBUS/bronchoscopy as well as asthma. He is undergraduate lead at UCL Medical School for the final year.

Laura Martin is a Consultant Respiratory Physician at Imperial College Healthcare NHS Trust with sub-speciality expertise in tuberculosis, and respiratory infection including bronchiectasis, pulmonary NTM and fungal lung disease. She worked with the Lima, Universidad Cayetano Heredia, TB Research Group from 2010-2013. She is an Honorary Senior Lecturer at Imperial College. TB publication themes include improving diagnostics, management of latent infection, drug resistance, and ocular disease. Areas of ongoing research interest include TB drug monitoring, latent TB screening for immunosuppressed patients and digital health technology.

Detecting latent TB infection: what do the tests mean?

One quarter of the world's population is infected with TB and latent infection represents an important pool of dormant infection that can lead to subsequent active disease. The increasing use of immunosuppressive biologic medications means that being able to navigate latent TB diagnosis and treatment risk-benefit discussions is important for all respiratory physicians including those in regions with relatively low rates of active TB disease. This talk will cover the significance of latent TB infection, who should be tested and how to test, as well as possible treatment strategies.

Paul McCallion is an Advanced Respiratory Medicine Physiotherapist with a specialist interest in bronchiectasis and research. He leads the Newcastle upon Tyne Hospitals NHS Foundation Trust Physiotherapy Bronchiectasis Service. He graduated from Queen Margaret University, Edinburgh in 2011. Paul is the Long-Term Conditions Champion for the Association of Chartered Physiotherapists in Respiratory Care (ACPRC) in the UK. He is an NIHR Pre-doctoral Clinical Academic Fellow and is currently completing an MSc in Public Health and Health Services Research at Newcastle University.

Laura McNaughton is currently working as a Pleural Clinical Nurse Specialist in the Pleural Disease Unit within the Queen Elizabeth University Hospital, Birmingham. She specialises in managing patients with pleural disease and has a specialist interest in pleural medicine, asbestos related conditions and mesothelioma. Laura recently completed an MSc in advanced nursing practice with a focus on pleural and palliative disease. She currently sits on the BTS Pleural Specialist Advisory Group as the nurse representative.

Dr Puja Mehta is a Rheumatology Senior Specialist Registrar and is undertaking a basic science PhD in immune-patho-mechanisms of post-COVID interstitial lung disease at University College London (UCL), Respiratory Division. She is a strong proponent of cross-speciality working. Her main research interests are rheumatic-associated interstitial lung disease and immune-therapeutics. She has experience in drug development and the industry-academic interface, having designed a clinical trial in rheumatoid arthritis during a pharmaceutical industry fellowship and a background in academic haematology. She is a member of the COVID-19 EULAR Task Force and is current Clinical Chair of the Early Career Research (ECR) Network Committee and member of the Athena Swan Committee at UCL. She is an Associate Editor for the Rheumatology journal and supervises and teaches MSc and medical students at UCL and Imperial College.

Immunomodulatory therapeutics in ILD: a practical guide and framework for management

Lung disease in rheumatoid arthritis (RA) is poorly understood, despite it being recognized as prevalent and important, with considerable impact on prognosis, survival and therapeutic approach. The diagnosis of ILD in patients with RA and whether this is disease-related or drug-related, is central to consistent and effective approaches to management. The natural history of RA-ILD, management of sub-clinical ILD and whether radiological sub-types should influence treatment options is also unclear. In this talk, we cover the current clinical challenges, evidence so far and future directions.

Andrew Menzies-Gow is the Director of the Lung Division and Deputy Medical Director at Royal Brompton and Harefield Hospitals, a Professor of Practice (Respiratory Medicine) at Imperial College, the National Clinical Director for Respiratory Disease for NHS England & Improvement and the Chair of the Adult Specialised Respiratory Clinical Reference Group for NHS England Specialised Commissioning.

Update on the NHS England Long Term Plan

This presentation will cover the ambition and progress in delivery of the NHS Long Term Plan for Respiratory Disease. It will focus on areas of success including the development of clinical respiratory networks and the introduction of IIF indicators to both improve asthma control and meet net zero commitments. The planned recovery of services following the pandemic will be discussed as well as future areas of focus including a 5-year vision for pulmonary rehabilitation and the introduction of a breathlessness pathway in community diagnostic centres.

Dr Ben Messer is a Consultant in Intensive Care Medicine and Home Ventilation in Newcastle-upon-Tyne and the Clinical Lead of the North East Assisted Ventilation Service. He is Chair of the British Thoracic Society Critical Care Specialist Advisory Group.

Ben's critical care interests are acute non-invasive respiratory support and sepsis pathways. Within home ventilation, his interests are tracheostomy ventilation, secretion management and palliative care in MND, and the respiratory and perioperative care of neuromuscular patients.

Helen Morris leads the Manchester Interstitial Lung Disease Nursing Service at Wythenshawe Hospital. The team provide supportive care throughout the patients' disease, managing treatment, palliative care needs and advising on end-of-life care. She supports a network of specialist nurses and allied health care professionals across the North West and North Wales to provide patients with pulmonary fibrosis tailored care closer to home. Helen is Chair of the ILD Interdisciplinary Network.

Supporting ILD patients in receiving a holistic and co-ordinated approach to their care

This presentation will:

1) Examine the role of the ILD multi-disciplinary team approach to diagnosis and its ongoing approach to caring for patients with life limiting lung disease and to further explore the role of the nurse in ILD from diagnosis to end of life.
2) Explain the initiation and coordination of treatment and symptom management in ILD and the role of regional network services, reflecting on the approach of specialist nurses and allied healthcare professionals in providing holistic specialised care in both secondary and primary settings, incorporating the skills of both tertiary and local services to enhance the patient's journey.

Dr Hilary Moss trained in radiology in Cambridge and Leeds with a Fellowship in Thoracic Radiology in Papworth Hospital, Cambridge. She was initially appointed as Consultant and Senior Lecturer in Radiology with a specialist interest in thoracic and oncological imaging in Leeds. Currently, she is Lead Chest Radiologist in Harrogate Hospital.

HRCT – it's all just patterns!

The goal of HRCT is to detect, characterise and determine the extent of diseases which involve the lung parenchyma and airways. We will discuss a structured, systematic approach to looking at HRCTs, stressing how important it is to listen to the history and review previous CXRs. We will look at a wide range of pathologies, deciphering the patterns and looking at how the HRCT abnormality location, dominant pattern, distribution within the secondary pulmonary lobule and additional pulmonary and extra pulmonary findings are all helpful in narrowing the differential diagnosis to give a clinically helpful HRCT interpretation.

Dr Annabel H Nickol FRCP, PhD, Dip Mnt Med, FRGS, is a Consultant in Respiratory Medicine and leads the Oxford Sleep and Ventilation Service. She is Medical Advisor to the Sleep Apnoea Trust Association, Co-chair of the OSA Alliance and was a member of the NICE OSAHS Guideline Committee.

She graduated from Guys and St Thomas' in London in 1995, then worked in New Zealand, South Wales and London before moving to Oxford. She was able to indulge her passion for respiratory physiology in her youth with research into control of breathing at sea level and high altitude (BSc, First Class Hons, London 1992) and sleep at high altitude (Chairman of 'Medical Expeditions'). She later translated that work into observing physiological changes in patients with ventilatory failure initiating nocturnal NIV (PhD, Brompton, London, 2004). She is part of the UK Clinical Sleep Research Network, helping optimise OSA treatment through clinical trials.

The OSAHS and OHS NICE Guidelines: an update on the diagnosis and management of obstructive sleep apnoea

The obstructive sleep apnoea/hypopnoea syndrome and obesity hypoventilation syndrome in over 16s guideline was published in August 2021 **https://www.nice.org.uk/guidance/ng202**. This talk will highlight key updates in recognition, diagnosis and treatments in this area.

Dr Claire Nolan is a Lecturer in Physiotherapy, Brunel University London and Senior Research Physiotherapist, Harefield Respiratory Research Group. Her main research interests are pulmonary rehabilitation, novel rehabilitation strategies and outcome measures in chronic respiratory disease, in particular idiopathic pulmonary fibrosis and COPD. She is currently working on trials investigating different rehabilitation and rehabilitation maintenance strategies and is developing a home-based rehabilitation intervention for people with ILD. Dr Nolan is co-chair of the British Thoracic Society Pulmonary Rehabilitation Specialist Advisory Group and a member of the British Thoracic Society Pulmonary Rehabilitation Clinical Statement Working Group.

Dr Emma O'Dowd is a Consultant Respiratory Physician at Nottingham University Hospitals NHS Trust. She was awarded a PhD in lung cancer epidemiology in 2017, funded by the Roy Castle Lung Cancer Foundation. Her research interests are lung cancer screening, early diagnosis and epidemiology of lung cancer. She is a member of the National Cancer Research Institute Screening, Prevention and Early Diagnosis Group, British Thoracic Society Lung Cancer and Mesothelioma Specialist Advisory Group and Lung Cancer Clinical Expert Group.

Professor Michael Peake OBE, is Clinical Co-Director of the Centre for Cancer Outcomes, University College London Hospitals, Specialist Advisor to Cancer Research UK, Honorary Professor of Respiratory Medicine, University of Leicester and Honorary Clinical Lead in the National Cancer Registration and Analysis Service. He established the National Lung Cancer Audit and the UK Lung Cancer Coalition, and co-founded Mesothelioma UK and the British Thoracic Oncology Group. He has been involved in national cancer policy since the 1990s and published widely, major interests being early cancer diagnosis and improving outcomes for patients by proper service configuration, supported by clinical outcome data. He was awarded an OBE in the Queen's Birthday Honours list in 2020 for his services to medicine.

Time for a national optimal mesothelioma pathway?

Mesothelioma is an uncommon malignancy most commonly affecting the pleura. Its incidence varies widely across the UK with some respiratory teams seeing less than 10 new cases per year. Whilst sadly it remains essentially an incurable disease, there have been significant advances in its diagnosis and treatment, resulting in a modest survival benefit and better symptom control, but requiring access to specialised teams. Optimal pathways of care have been developed for many cancers and the lecture will expand on why it is so important that such a pathway is developed for mesothelioma.

Learning points:

1) The key elements in optimal diagnosis and treatment of mesothelioma.
2) What an optimal pathway might look like and how it might benefit patients.
3) The roles of the respiratory physician and clinical nurse specialist.

Melanie Perry is Project Manager, Tobacco Dependency Treatment Project, at the British Thoracic Society. Management of this project involves supporting clinicians within hospital acute trusts to implement and improve tobacco dependency treatment services alongside the NHSE Long Term Plan delivery objectives.

Melanie has over 30 years' experience in the NHS, nursing, within secondary and primary care, followed by working within tobacco control and smoking cessation, whereby she successfully set up and led a hospital-based smoking cessation service for 13 years.

No need to start from scratch when developing a tobacco dependence service

By 2023/24, all people admitted to hospital who smoke should be offered NHS-funded tobacco treatment services. Acute trusts now have access to funding to support the implementation of the NHS Long-Term Plan ambition to embed tobacco dependency treatment firmly within the patient pathway.

The British Thoracic Society have developed a road map to help support those involved in setting up and overseeing the development of this vital service.

This session is relevant to all members of the multi-professional team with an interest and passion for treating tobacco dependence. It will guide through the processes involved to provide realistic and practical tips and reassure that setting up and delivering a successful service can be an achievable goal.

Dr Keir Philip is a Respiratory SpR/Clinical Research Fellow at the National Heart and Lung Institute (NHLI), Imperial College London, NIHR Imperial Biomedical Research Centre and The Royal Brompton Hospital London, currently completing his PhD at the NHLI. His research focuses on the intersection of the performing arts, patient experience, and digital health. Over the last 3 years he also has been working with the charity Asthma+Lung UK (previously the British Lung Foundation and Asthma UK), on various projects exploring the experience of people with pre-existing long-term respiratory conditions through the COVID-19 pandemic, including understanding their perspectives on how COVID-19 related public health measures might be employed longer term to reduce exacerbations of respiratory conditions.

Implications of COVID-19-related public health measures on COPD exacerbations. Lessons for the future

In many ways, the COVID-19 pandemic, and related public health measures, have been particularly challenging for people with long-term respiratory conditions. However, certain positive impacts could provide us with useful insights to improve COPD management. Research has suggested that exacerbations of airways disease reduced when COVID-19-related public health measures were in place. This presentation will discuss the research on changes in exacerbation rates, the perspective of people with airways diseases on continuing with public health measures, and what are the potential implications for the future.

Joanna Porter heads the NHS National Interstitial Lung Disease (ILD) Service at UCLH and is a Professor of Respiratory Medicine at UCL.

Her clinical interest is in ILD, in particular pulmonary fibrosis and ILD in the context of autoimmune disorders; and in the development of novel biomarkers and therapies for ILD. Joanna is one of the founding members, and Medical Director, of the Breathing Matters Charity and is the UCL/H BRC Clinical Academic Lead for the NIHR Translational Research Collaboration. She heads the Leukocyte Trafficking Laboratory at UCL and is Head of Undergraduate Respiratory Teaching at UCLH.

Dr Louise Restrick works as an Integrated Consultant Respiratory Physician at Whittington Health, London. She has a long-standing commitment to value-based respiratory care including working as a 'tobacco dependence treatment' clinician. She co-led the London team that introduced the 'COPD Value Pyramid', worked on the London Senate Helping Smokers Quit Programme, was a member of the latest NICE COPD Guidelines Update Group, and is a member of the current BTS 'Medical Management of Tobacco Dependency for Hospital Clinicians' Clinical Statement Group.

Mark Roberts is a Respiratory Physician at King's Mill Hospital in Sutton-in-Ashfield. He is the Lead for Pleural Diseases, regularly performing thoracoscopy and indwelling pleural catheters, often on an ambulatory basis. He is co-Chair of the BTS Guideline Group for Pleural Diseases. He established the UK Pleural Society, which runs several theory and practical educational courses in pleural disease and more recently webinars.

Optimal management of a malignant pleural effusion

This presentation will provide a summary of current options for managing malignant pleural effusions, with reference to the upcoming BTS Pleural Disease Guideline. The focus will be on fluid management strategies, including inpatient and outpatient pathways. There will also be reference to complex situations including non-expandable lung and use of fibrinolytics.

Peter James Robinson (Jim) is currently working as a Senior Respiratory Physiologist for Frimley Park Hospital. Previously, he has worked in similar roles at the Royal Brompton Hospital and Tauranga Hospital in New Zealand. His interests include: upper airway obstruction and cardio-pulmonary exercise testing with a specific interest in congenital heart disease patients.

Introduction to the theory and clinical application of routine lung function tests

The various components of lung function tests provide a very important set of tools for clinicians in the evaluation of respiratory health and disease. Spirometry, transfer factor and static lung volume have found clinical application in the diagnosis and monitoring across a variety of diseases. This presentation aims to discuss some background theory of these routine lung function tests. Additionally, focusing on diseases states, how these impairments can alter the mechanics of breathing and gas diffusing capabilities of the lung. Touching also on clinical use and the role lung function tests play along a patient's journey.

Hitasha Rupani is a Consultant Respiratory Physician with a specialist interest in severe asthma. She chairs the British Thoracic Society Specialist Advisory Group for Asthma and is a Clinical Lead in the Accelerated Access Collaboration for Asthma Biologics. Hitasha has a PhD from the University of Southampton and continues to actively engage in asthma research.

Dr Anand Shah is a Consultant Respiratory Physician at the Royal Brompton Hospital, Guy's and St Thomas' NHS Foundation Trust and an Honorary Clinical Senior Lecturer at the MRC Centre of Global Infectious Disease Analysis, School of Public Health, Imperial College London. His clinical and academic interest is the management of pulmonary fungal infection with a research focus with a number of active projects on host-pathogen interaction, immune susceptibility, antifungal resistance and identification of novel therapeutic targets.

Managing allergic bronchopulmonary aspergillosis: steroids, antifungals or biologics?

In this talk, Dr Shah will discuss the current evidence base for management of allergic bronchopulmonary aspergillosis (ABPA). He will discuss the heterogeneity of ABPA and the challenges in current management alongside potential current and future potential use of novel biologic therapy.

Dr Charlie Sharp is Consultant in Respiratory and General Medicine, South West NHSE/I Respiratory Clinical Network Co-Lead, Gloucestershire Hospitals NHS Foundation Trust. He works across hospital and community settings supporting the Respiratory Integrated Care team in Gloucestershire, and works closely with the ICS in developing new pathways. He has a particular specialist interest in Interstitial Lung Disease and Breathlessness management. He has been a co-lead of the South West Respiratory Clinical Network since 2020.

What is breathlessness? (joint presentation with Morag Farquhar)

An important component in understanding breathlessness management is to understand the different perspectives from which it can be viewed. This session will explore patient and carer experiences of chronic breathlessness, in addition to clinician perspectives in a discussion to improve general understanding of this challenging symptom.

Samantha Sinclair is a Surgical First Assistant at the Golden Jubilee National Hospital, Clydebank. Ms Sinclair was a late starter in her career as a nurse, completing her Adult Nursing Degree in 2010 at the University of Stirling. A few years later in her nursing career, she progressed to the qualification of an Advanced Scrub Practitioner, which was accredited by the

University of Greenwich in 2016. Ms Sinclair's Scrub Nurse life started in Neurosurgery at the Queen Elizabeth University Hospital in Glasgow, where she spent many years. In 2018, she joined the Transplant and Retrieval Team as a Scrub Nurse at the Royal Infirmary of Edinburgh. After a couple of years, she moved to the Golden Jubilee National Hospital, where she now works as a Surgical First Assistant for General/Thoracic, mainly working with the robot, which the colorectal surgery team has humbly named Sigmoid Freud! Ms Sinclair still works at the Royal Infirmary of Edinburgh a few weekends a month as a Scrub Nurse for Transplant to keep up her skills in that field.

Sindhu Sivagnanasithiyar is a Band 8a Healthcare Scientist with more than 14 years of experience in respiratory physiology and a particular interest in quality improvement and innovation. She is responsible for managing a respiratory physiology service based at two sites within St George's teaching hospital in London, leading clinics where she performs and analyses specialised sleep studies and pulmonary function tests on adult patients.

Sindhu is skilled in physiology, clinical research, adults, and paediatrics and clinical trials having worked at Royal Brompton Hospital for 8 years. In 2017, she completed an MSc in Allergy at Imperial College London. Prior to taking a senior role at St George's, Sindhu set up and launched a paediatric physiology diagnostic service at Guy's and St Thomas' Hospital (Evelina) which was the most rewarding part of her career.

She is a long-standing member of the ARTP and Chair for the London regional meetings that are held on a quarterly basis, and a member of the Spirometry Committee. She thoroughly enjoys teaching and often partakes in masterclasses and sessions at respiratory conferences (such as ARTP, ERS, BTS and King's John paediatric conference) and lectures undergraduate students, STP and PTP student, junior doctors and the wider multidisciplinary team.

The technique behind the numbers

Summary and educational aims:

1) Technique of performing spirometry, transfer factor, lung volumes and FeNO.
2) Reference values and limitations.
3) Assumptions.

Claire Slinger is currently working as Consultant Speech and Language Therapist and Service Lead for Preston Complex Breathlessness (Airways) Multi-Disciplinary Team, Lancashire Chest Centre, Royal Preston Hospital, Lancashire Teaching Hospitals Trust. She is Professional Advisor to the Royal College of Speech and Language Therapists (Field of Adult Respiratory Care) and Co-author RCSLT Position Paper Upper Airway disorders (2021).

Claire's areas of interest include assessment and management of inducible laryngeal obstruction (ILO) and chronic cough, as well as an interest in MDT upper airway assessment to support patients who have upper airway issues and have difficulty tolerating mechanical insufflation-exsufflation and/or non-invasive ventilation.

Super-SALT

Learning objectives:

1) To increase awareness and discussion of the role and benefits of an integrated speech and language therapist (SLT) in a multi-disciplinary adult respiratory setting.
2) Focus on assessment and management of laryngeal dysfunction (in particular inducible laryngeal obstruction and chronic cough).
3) To highlight the possible support SLT can offer to the wider respiratory service to support the wider MDT and patient care.
4) The importance of understanding the role of the larynx in respiratory presentations will be highlighted throughout.

Ruth Sobala is a respiratory trainee in the North East of England, currently working within the Newcastle Upon Tyne NHS Foundation Trust. She is chair of TERRANE, the North East Respiratory Trainee Research Network and is co-leading the delivery of ERUPT: a national trainee led study evaluating pulmonary embolism thrombolysis.

Update on a national collaborative project – ERUPT thrombolysis in PE study (joint presentation with Joe Kibbler)

The UK's early career respiratory research network (INSPIRE) is undertaking its first national collaborative projects. We introduce ERUPT: a UK-based observational study evaluating pulmonary embolism (PE) thrombolysis. This multi-centre study will describe the frequency of full- and half-dose thrombolysis for massive and sub-massive PE. It will analyse patient outcomes, delivering real-world data into current practice, and lay the foundations for a UK based PE registry.

This session will provide an update on ERUPT, with a focused Q&A session. We hope to capture your interest and involvement in this much needed study. PE thrombolysis decisions can be challenging. Can you help advance clinical practice and improve patient care in this key area?

Claire Somerton is a Specialist Respiratory Physiotherapist currently working in the Manchester Severe Asthma and Airways Service. Within her role she treats patients diagnosed with severe asthma as well as complex upper airway conditions, working as part of a multidisciplinary team. Claire is particularly interested in treating breathing pattern disorders and is also a member of the Association of Chartered Physiotherapists in Respiratory Care.

Anna Spathis has a clinical and academic interest in the management of breathlessness and fatigue. She has worked in the Cambridge Breathlessness Intervention Service (CBIS) since 2011. Along with her CBIS colleagues, she developed the Breathing Thinking Functioning model, delivering regular study days based on this approach. Her research focuses on increasing access to breathlessness self-management support, particularly in primary care.

How to approach the management of breathlessness: Breathing Thinking Functioning model

Chronic breathlessness can inadvertently be perpetuated by vicious cycles of instinctive emotional and behavioural responses, conceptualised in the Breathing Thinking Functioning model. The model facilitates breathlessness management by helping make sense of the symptom, providing a rationale for symptom management, and supporting personalised selection of the most appropriate non-pharmacological techniques.

Jessica Swan gained a BSc (Gloucester) and MSc (St George's) before joining the NHS. She is an Advanced Respiratory Physiologist at the Royal Berkshire NHS Foundation Trust in Reading where she is the CPET lead. Jessica also sits on the ARTP Standards Committee and is on the HSST programme.

Physiology Quiz and Q&A session

Test your knowledge in the physiology quiz studying the individual cases. For each presentation, a brief overview of the results will be given, followed by questions on possible diagnoses, technical aspects, and consideration of further testing.

Join Jessica Swan and Mark Unstead for the live discussion of each case. During this interactive hour, Jessica and Mark will address the most frequently asked questions, common mistakes and take any new questions around the subject.

The session is aimed at early-stage respiratory trainees and other respiratory professionals, although it will provide a light refresh for more senior colleagues.

Ema Swingwood is currently an NIHR Clinical Academic Research Fellow at the University of the West of England. Her substantive post is as the Respiratory Pathway Lead Physiotherapist at University Hospitals Bristol and Weston NHS Foundation Trust. Her areas of clinical expertise and interest are ventilation, weaning and complex airway clearance.

Having completed the Advanced Cardiorespiratory Physiotherapy Msc programme at University College London (UCL) in 2012, Ema has continued her research focusing on the use of mechanical insufflation-exsufflation (MI-E) and other cough augmentation strategies. Her current PhD work focuses on the use of MI-E in the intubated population.

Extra-curricular activities include contributions to the Undergraduate Physiotherapy programme at the University of the West of England, and post-graduate teachings at University College London. She sits on the BTS Education and Training Committee, NHSE/PHE Independent High-Risk Aerosol Generating Procedures Panel, ICS Physiotherapy Professional Advisory Group and the Equity, Diversity and Belonging Committee of the CSP.

The Power of Physiotherapy

The Power of Physiotherapy will explore the unique skills of a respiratory physiotherapist and our vital contributions to a MDT. We will also consider our potential future role in key developments such as Respiratory Support Units.

Hilary Tedd is a Consultant in Respiratory Medicine at the Royal Victoria Infirmary, Newcastle, working as part of the North East Assisted Ventilation Service. She has a specialist interest in neuro-disability and its impact on respiratory health. She has worked as part of the BTS working group to develop a clinical statement on Community Acquired Pneumonia in Learning Disability and on Aspiration Pneumonia.

Prognostic nihilism in patients with learning disabilities: the COPD of our generation?

Patients with a learning disability die at a significantly younger age than patients without learning disability, with pneumonia as the commonest cause of death. The LeDeR report highlights the requirement for appropriate access to critical care services. This talk aims to look at what a learning disability is, why this disparity in life-expectancy exists, how we can look to improve care for this patient group and how we can inform escalation decisions in patients with a learning disability.

Mark Unstead is Lead Respiratory Physiologist at the Royal Berkshire NHS Foundation Trust, Reading, Berkshire. He sits on the ARTP Editorial and Education Committees and is the current Vice-chair of Examinations. He is the ARTP-BTS physiology education link and is an NHS Innovation Healthcare Science fellow.

Dr Paul Walker is a Chest Physician at Liverpool University Hospitals NHS Trust and Medical Lead for the Sefton Community Respiratory Team. He has clinical sub-specialty interests in COPD, bronchiectasis and pulmonary physiology and is involved in ongoing research in these areas. He is Diagnostics Lead for Merseyside and Cheshire ICS and the current Chair of The British Thoracic Society.

Dr Steve Walker is an NIHR Academic Clinical Lecturer and Specialist Registrar in Respiratory Medicine. His research interests are focused on non-malignant pleural disease, and he has recently completed randomised trials on pneumothorax and transudative pleural effusions management. He is a current member on the forthcoming BTS Pleural Disease and ERS Spontaneous Pneumothorax guidelines.

Gareth Walters is an NHS Consultant in Occupational and Interstitial Lung Diseases. He leads the supra-regional occupational lung disease service in Birmingham, and is an Honorary Senior Research Fellow at University of Birmingham. He is a past member of the BTS Specialist Advisory Group on Occupational Lung Diseases, and current member of the Industrial Injuries Advisory Council.

Approach to diagnosis

In the second of three talks, based around the newly published BTS Clinical Statement on Occupational Asthma, Dr Walters will use interactive case-based examples to cover occupational history taking and review the range of diagnostic tests available.

Helen Ward has been a Consultant Respiratory Physician at The Royal Wolverhampton NHS Trust since February 2013. She has a particular interest in integrated care and end of life care in non-malignant respiratory disease. Since March 2019 she has been a Trustee for the British Thoracic Society (BTS) and a member of the BTS Board. She also represents the BTS on the NHS England Respiratory Delivery Board which has oversight of the delivery of the Long-Term Plan (LTP) for Respiratory. She is the Chair for the Managing Chronic Breathlessness National LTP Work Stream.

What could a chronic breathlessness service look like?

The aim of this talk is to present examples of current chronic breathlessness services in the UK and to explore the elements that are essential to these services. It will also outline what we are doing locally in Wolverhampton to help support patients with chronic breathlessness. We will review the national work that is ongoing as part of the Long-Term Plan within the managing chronic breathlessness workstream, including the development of a Breathlessness Service Implementation Framework to support service leads and commissioners when developing a chronic breathlessness service.

Dr Ruth Wiggans is a Respiratory Consultant with an interest in occupational and environmental lung diseases and an Honorary Lecturer at the University of Manchester. She is a member of the Group of Occupational Respiratory Disease Specialists and has previously been a member of the BTS Occupational and Environmental Lung Disease Specialist Advisory Group. Her PhD research examined risk factors for occupational asthma in allergen-exposed workers. Current research projects explore the intersection between work and health including the COVID-19 PROTECT study and THOR database.

ABSTRACT PRIZES
IMPROVING QUALITY IN PATIENT CARE

1) The sooner the better? The Respiratory Early Diagnostic Service – turning Oxford "REDS"

[1]G Ghidoni, [1]KL Ng, [1]A Moore, [1]A Talwar, [1]A Sykes, [1]J Wrightson, [1]H Ellis, [2]M Tsakok, [2]R Benamore, [2]L Radbourne, [2]L Wing, [2]H Peschl, [2]F Macleod, [2]T Condon, [3]S Hiscox, [1]W Robinson, [1]M Joachimiak, [1]J Yates, [1]J Park. [1]Osler Respiratory Unit, Oxford Universities Hospitals NHS Foundation Trust, Oxford, UK; [2]Department of Thoracic Radiology, Oxford Universities Hospitals NHS Foundation Trust, Oxford, UK; [3]QI Hub, Oxford Universities Hospitals NHS Foundation Trust, Oxford, UK.

Introduction

The National Optimal Lung Cancer Pathway (NOLCP) stipulates that patients are seen and diagnosed by day 21 measured. In Oxford, we established a nurse lead Respiratory Early Diagnostic Service (REDS) to facilitate the pathway.

Objectives

Through PDSA cycles we aimed to establish a "next day CT" with simultaneous clinical assessment and requesting of diagnostic tests in direct response to an abnormal CXR report.

Methods

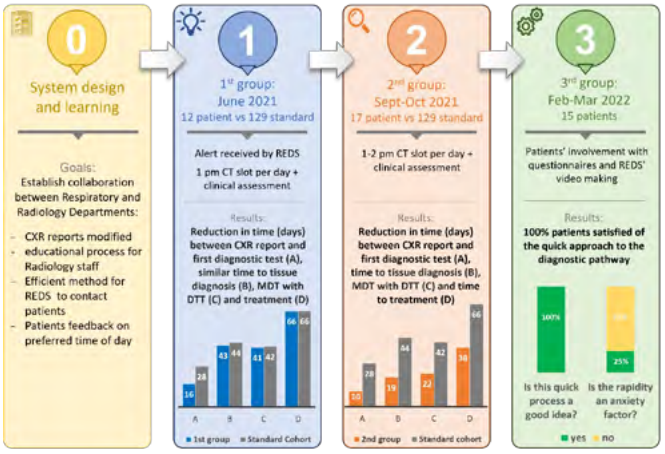
1) Abnormal CXR report code was modified to initiate a REDS email. Educational emails were sent to all reporting radiologists/radiographers. On receipt of emails, REDS contacted patients to establish if they were able to attend for a CT and the preferable time (morning or afternoon).
2) In response to patient feedback, in collaboration with radiology booking teams, a daily afternoon CT slot was allocated to REDS patients. Patients were met at the CT scan by the REDS team, the CT reviewed by REDS consultant and diagnostic tests requested. Adherence to NOLCP was measured and compared to previous and parallel "standard 2WW" patients.
3) In response to data, 1-2 afternoon CT slots were allocated and adherence to NOLCP measured. In a third group, patient feedback was also sought to assess satisfaction and anxiety associated with the pathway.

Results

Figure 1 summarises PDSA cycles and outcomes (29 patients in total) compared to the standard 2WW pathway (129 patients). Patients' preference was for afternoon CTs. Improvements were seen in early pathway NOCLP measurables in cycle 1 (time to first diagnostic tests: 16 vs 28 days). Cycle 2 showed improvement in additional NOLCP targets (time to tissue diagnosis: 19 vs 44 days, time to treatment: 38 vs 66 days). Patient feedback in cycle 3 showed satisfaction in all patients. Time to discharge for non-cancer patients was reduced (0 vs 3.9 days).

Conclusion

The stepwise redesigned pathway allowed us to improve NOLCP outcomes with high patient satisfaction. Further improvements will include increasing CT slots, a REDS introduction video and continued patient feedback, to ensure patients remain at the centre of this improvement.



2) Improving the Management of Tobacco Dependence

[1]EL Toplis, [1]LA Boast, [1]JA Hampson, [2]R Smithers, [2]S Mia, [3]H Gleeson, [1]D Moore, [1]GE Lowrey. [1]University Hospitals of Derby and Burton NHS Foundation Trust, Derby, UK; [2]Livewell, Derby, UK; [3]Live Life Better Derbyshire, Derby, UK.

Introduction

All inpatient smokers should be offered treatment for their tobacco addiction by 2023/24[1]. However, local and national data show that patients are not receiving adequate treatment for their tobacco dependence. University Hospitals of Derby and Burton (UHDB) NHS Foundation Trust formed a multi-professional, multi-service group including community partners in October 2020 to optimise the management of tobacco dependency. Over 12 months we aimed to:

- Train 50% of respiratory ward staff in very brief advice (VBA)
- Simplify prescribing of nicotine replacement therapy (NRT)
- Increase the number of referrals to community tobacco dependency services

Methods

Three primary drivers were identified: training and education, prescribing and access to NRT and referrals to community tobacco dependency teams. Simultaneous PDSA cycles addressed each area.

Tobacco dependency champions were appointed, and VBA training delivered to respiratory staff. An NRT order set was created on the Trust prescribing software based on CURE methodology[2] and respiratory ward stock lists updated to include NRT. A secure email for outpatient referrals and direct referral via the trust electronic system for inpatients was implemented.

Results

We trained 50% of respiratory ward staff in VBA, successfully implemented an order set and increased the prescribing of

NRT. Referrals to community tobacco dependency services significantly increased from 2 pre-intervention (Q4 2020), to 103, 181, 134 and 147 (Q1-4 2021). 59% accepted support of a community service and 21% were smoke free at 1 month.

Discussion

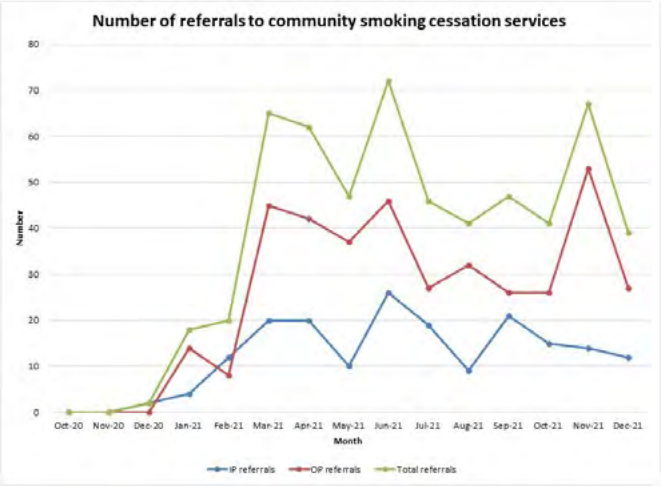
The shared partnership with community tobacco dependency services from the outset was fundamental to achieving our aims. Tailored referral processes enabled patients to be contacted quickly after discharge, maintaining momentum for the patient's quit attempt. Key partnerships with IT and pharmacy to formulate order sets and resolve issues with NRT stock facilitated rapid access to NRT.

Regular engagement and education events were required to overcome the challenges of the Covid-19 pandemic and workforce pressures.

Our successful respiratory department pilot has now been expanded into a Trust-wide tobacco dependency programme.

References

1) The NHS Long Term Plan (2019)
2) The CURE Project (2019) Greater Manchester Health and Social Care Partnership, Greater Manchester Cancer and Manchester University NHS Foundation Trust.



3) The 'Satellite' Project – Sleep Apnoea TELephone IniTiativE

[1]P Corry, [1]T McManus, [1]F Okpoko, [1]J Kara, [1]Z Khan, [1]J Wieboldt, [1]J Pastrana, [1]C McGarrigle, [1]L McManus, [1]S Campbell, [1]E McKenna, [1]K Donnelly, [1]T Howe, [1]A Irvine. [1]South West Acute Hospital, Enniskillen, Northern Ireland.

In January 2020, over 300 patients from the Southern Section of the Western Trust were awaiting assessment for Obstructive Sleep Apnoea (OSA). Some had been waiting for almost 3 years.

The rate-limiting step in our existing model was insufficient slots available in outpatient clinics.

We devised a new phone consultation pathway, including an innovative standardised phone consultation template which could be used by non-consultant doctors to assess patients via phone.

Advantages of phone consultations included:

1) Using the template, assessments could be performed safely by non-consultant hospital doctors
2) Doctors could phone patients whenever other duties were under control outside formal 'clinic times'
3) Doctors in self-isolation could undertake this work from home using secure trust laptops/external links
4) No need for patients to travel to an outpatient setting (therefore minimising risk of exposure to covid-19)
5) If patients did not pick up the phone, doctors could simply move onto the next listed patient – therefore no 'wasted time' as can occur in 'did not attend' scenarios

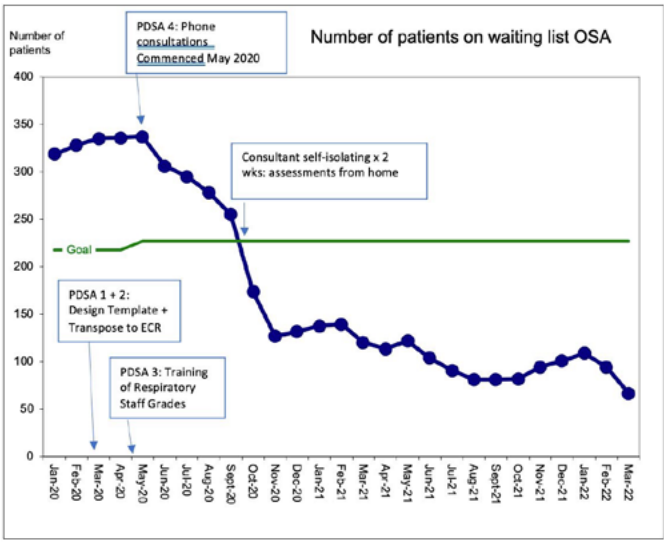
Advantages of non-consultant doctors performing phone consultations:

1) More patient assessments
2) Enhanced Continuous Professional Development

Following assessment, non-consultant doctors discussed complicated cases with consultants. Where appropriate, they referred patients on for further investigations including outpatient sleep studies (carried out by Respiratory physiologists). Patients diagnosed with OSA were commenced on CPAP by respiratory nurses.

After 6 months, despite regular new referrals, we had reduced our waiting list from 337 127 patients. Qualitative analysis via survey of a random sample of patients revealed a high level of satisfaction with the pathway. We are continuing the SATELITE project indefinitely and despite regular new referrals, our figures continue to improve (on 20th March 2022, 67 patients await assessment).

Phone consultations are safe, effective and time efficient and it is felt that they offer the opportunity for enhanced patient care going forwards in particular a dramatically reduced waiting time. They necessitate no additional financial costs as they utilise existing resources. The phone assessment model is potentially transferable to other common referrals (including in other specialties) and we are currently designing a standardised phone interview template for 'Chronic Cough'.



Run Chart showing Number of Patients on Waiting List on 20th of each month

4) A two-cycle quality improvement project introducing a documentation proforma to ensure evidence-based, safe and efficient management of patients hospitalised with COVID-19

[1]J Winterton, [1]E Frisira, [1]O Munajjed. [1]Hillingdon Hospital, London

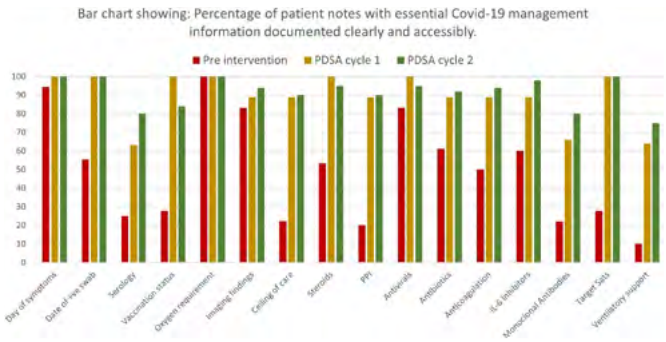
Accurate record-keeping provides enhanced opportunity for decision-making, management plan refining, progress tracking, safety checking and improved care continuity1. Documentation proformas have been identified as helpful tools to ensure accurate record-keeping to enhance efficient, safe clinical care2.

The aim of our project was to improve the quality of care for patients hospitalised with Covid-19 on an acute respiratory unit by optimising the clarity and efficiency in documenting essential information relating to Covid-19 management.

Baseline data showed that Covid-19 ward rounds were inefficient, with indicated treatments often delayed or misaligned with rapidly evolving evidence. Driver diagram route course analysis and questionnaire data also revealed that doctors were unsure about essential information relating to specific patient management, with time wasted on searching for this information in convoluted case notes.

We designed a management information summary template to be used for every patient with Covid-19. We found this template to be beneficial on the first 'Plan, Do, Study, Act' (PDSA) cycle. Average daily ward round preparation time decreased by 7 minutes per patient. The template heralded improved documentation in all measured areas of pre-treatment information and evidence-based treatment given. Repeat questionnaire data showed that confidence in the proper management of Covid-19 patients increased substantially. A second PDSA cycle ensured sustainability. The template was refined with the guidance of the consultant body. Following meetings with ward management, the template was established as the primary piece of documentation to review and update when managing Covid-19 patients.

This project highlighted how a simple, informed intervention can herald significant benefit to evidence-based care while contributing to efficient and safe ward management. This is particularly pertinent when treating a disease to which the evidence base and national guidance on management is rapidly evolving.



References

1) Royal College of Physicians of London. Ward Rounds in Medicine: Principles for Best Practice: a Joint Publication of the Royal College of Physicians and the Royal College of Nursing, October 2012. Royal College of Physicians.

2) Thompson AG, Jacob K, Fulton J, McGavin CR. Do post-take ward round proformas improve communication and influence quality of patient care? Postgraduate medical journal. 2004 Nov 1;80(949):675-6.

5) An audit of patient non-adherence and cost savings at a Severe Asthma Service through appropriate stock control of biologics

[1]C Whitehurst, [1]K Newman, [1]CT Pantin, [1]L Elsey. [1]Manchester University NHS Foundation Trust, Manchester, UK.

Severe asthma biologic therapies are high-cost medications that must be appropriately controlled in terms of medicines management and adherence. Through our Severe Asthma MDT and a Pharmacist led optimisation clinic, patients are assessed for eligibility for biologic therapy in line with NICE guidelines. All patients starting on biological therapy have an education session with the Severe Asthma Pharmacist where adherence to the injection and is highlighted as being critically important for optimal treatment. Once a patient is approved, the patient must attend a nurse led severe asthma clinic for initiation of therapy where the importance of adherence is reiterated. Further adherence checks are completed after a patient has had 12 months on biological therapy. Non-attendance can put the patient at risk of an asthma exacerbation and wastage of unused injections can lead to financial loss to the NHS. In response, we have developed a specialist pharmacy technician role to improve medicines management of biologics and monitor non-attendance.

The pharmacy technician carried out a prospective audit of non-attendance and cost savings from returning unused biologics from January to March 2022. The aim of this audit was to measure non-compliance to biological therapy and cost savings through appropriate stock control by returning unused injections to pharmacy. A monitoring log was developed in Microsoft Excel(V2018) to keep a running total of cost savings and to flag patients who had not attended two consecutive appointments.

A cost saving for NHS England of £97,500 was identified through returning to pharmacy unused biologics. Twenty-four patients were identified as failing to attend their appointment for their biologic for at least 2 consecutive occasions. These patients who were non-adherent to their biological therapy through non-attendance were then referred to the Severe Asthma MDT for appropriate review.

In conclusion, the audit has proven the significant benefits of the pharmacy technician role, including identification of non-compliance and considerable cost savings. Following on from this audit, this log will become a key tool for the severe asthma pharmacy team in monitoring future non-adherence, in addition as well as identifying projected cost savings of over half a million pounds per financial year.

6) Effectiveness of a pharmacist managed Fungal Therapeutic Drug monitoring (TDM) clinic to improve outcomes in patients with chronic fungal lung infections: a quality improvement study

[1]L Nwankwo, [2]V Vas, [3]M Loebinger, [3]D Armstrong-James, [3]A Shah. [1]Pharmacy department, Royal Brompton and Harefield Hospitals, Chelsea, UK; [2]GSTT Education Centre, Lambeth, UK; [3]Department of Respiratory Medicine, Royal Brompton and Harefield Hospitals, Chelsea, UK.

Background

In a tertiary respiratory centre, patients are treated for long periods of time with triazole antifungal drugs, which have numerous side effects and drug-drug interactions. TDM (Therapeutic Drug Monitoring) is essential to ensure safety and efficacy. In a pandemic, with social distancing measures, monitoring might be challenging. Additionally, there was no system in place to track the progress of patients on their medication, and the majority of patients were only addressed at their regularly scheduled clinic appointments.

Objectives

To evaluate the effectiveness of a Fungal TDM clinic to improve outcomes in patients with chronic fungal lung infections.

Methods

A prospective cross-sectional and observational study was designed between 1 September 2020 and 30 September 2021. A series of Plan, Do, Study, Act (PDSA) cycles were conducted, grouped into the following themes:

Group 1: Fungal TDM clinic implementation (PDSA 1–2)

Group 2: The enabler- design of the remote venous TDM Kit (PDSA 3-4)

Group 3: Patient experience (PDSA 5–7): questionnaire, and patient focus-group

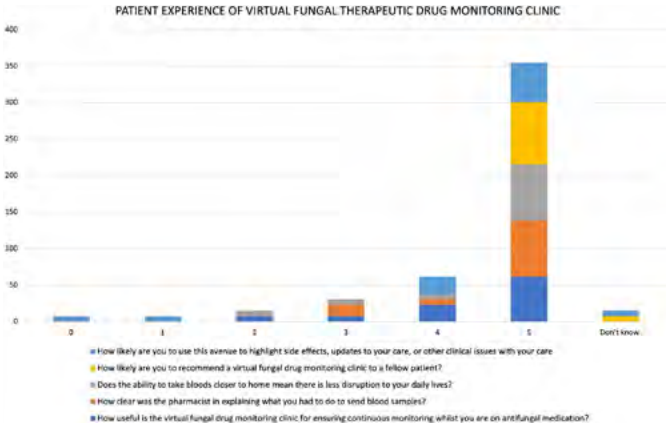
Group 4: Post-PDSA—Implementation of a Visual Analytics (VA) digital dashboard

Results

244 patients were included in this study, with 387 virtual consultations to antifungal users and remote blood tests. The most prevalent Infectious Diseases was Allergic Bronchopulmonary Aspergillosis (106 patients, 47.32%). The most common antifungals used were itraconazole and posaconazole. Drug levels were outside of the target range in 129 (33.3%) of consultations. There was a strong qualitative link between subtherapeutic levels and worsening symptoms. Supratherapeutic levels were associated with side-effect development which resolved on dose modification. The VA dashboard semi-automated the process of identifying patients for review. Patient satisfaction was high via focus-group feedback and questionnaire (n=57 respondents, Figure 1).

Discussion

This study highlights the utility of placing a pharmacist-managed dedicated fungal TDM service within an outpatient clinical pathway. In this setting, drug interactions are checked and mediated, with alternatives suggested, a drug information service is provided and side effects or deranged drug levels are highlighted to the clinician to facilitate timely intervention.



Conclusions

A pharmacist-managed fungal TDM clinic, when incorporated into an outpatient clinical pathway can improve patient outcomes and patient experience.

ABSTRACT PRIZES
INNOVATION IN RESPIRATORY EDUCATION AND TRAINING

1) Smoking cessation training for foundation year doctors – a positive step towards a smoke-free society

1EJ Farnell, 1SRG Tankard, 1NC Lee. 1Wrightington, Wigan and Leigh Teaching Hospitals NHS Foundation Trust, Wigan, UK.

Introduction

Tobacco smoking is a leading cause of preventable death and disability.1 Healthcare professionals play a vital role in the government's ambition for a smoke-free society in England by 2030.1-2 However, many undergraduate medical students do not receive sufficient training in the evidence-based means to facilitate smoking cessation amongst patients, and there is a limited emphasis within postgraduate curricula.1 This study assessed the use of practical smoking cessation training, incorporating role-play scenarios, on foundation year doctors' (FYDs) confidence when delivering smoking cessation advice and treatment.

Methods

Quantitative and qualitative data were collected from eighteen FYDs using structured feedback forms and self-reported confidence ratings (1-10) before and after the smoking cessation training. Paired t-test scores determined a difference between mean confidence ratings, whilst qualitative data were analysed using deductive thematic analysis.

Results

55.55% (n=10) received formal training during their undergraduate degree. A lack of awareness, training, and knowledge was reported as perceived barriers to independently offering smoking cessation advice and prescription of nicotine replacement therapy (NRT). 72.22% (n=13) reported assessing patients' smoking status daily or weekly. In comparison, 77.77% (n=14) reported rarely or never offering advice or prescribing NRT to established smokers. Pre-session confidence ratings demonstrated poor trainee confidence when providing smoking cessation advice (4.44±2.23) or prescribing treatment (4.61±2.17). Following the training, confidence ratings increased across all areas assessed. Firstly, when providing smoking cessation advice (8.33±1.24); a statistically significant increase of 3.89 (95% CI, 2.84 to 4.94), $t(17)=7.8148$, $p<0.0001$, $d=0.498$. Secondly, when prescribing treatment (8.64±1.05), a statistically significant increase of 4.03 (95% CI, 3.16 to 4.89), $t(17)=9.8432$, $p<0.0001$, $d=0.409$. Trainees reported enhanced awareness and knowledge of the subject matter.

Conclusion

The implementation of smoking cessation training, including role-play scenarios, improves the confidence of foundation year doctors providing advice and treatment to established smokers, a positive step towards a smoke-free society.

References

1) Royal College of Physicians. Hiding in plain sight: Treating tobacco dependency in the NHS. [Internet]. 2018 [cited 2022 Feb 7]. https://www.rcplondon.ac.uk/projects/outputs/hiding-plain-sight-treating-tobacco-dependency-nhs

2) Lewis P. Smoke-free England by 2030: On track or unrealistic? [Internet]. House of Lords; 2020 [cited 2022 Feb 7]. https://lordslibrary.parliament.uk/smoke-free-england-by-2030-on-track-or-unrealistic/

2) Immersive Technology – the future for respiratory education?

[1]P Twose, [1]C Dyer, [1]SC Cook. 1Cardiff and Vale UHB, Cardiff, UK.

Introduction

The covid-19 pandemic has severely hampered the ability to provide necessary respiratory training due to restrictions on access to training rooms, social distancing and significant clinical demands placed on both trainers and trainees.

The potential for immersive technologies to augment healthcare training is gaining significant interest. However, its applicability and effectiveness are yet to be fully understood. Additionally, the infrastructure requirements for wide-scale implementation have not been fully determined.

We aimed to explore the potential of immersive technologies to overcome the current challenges of respiratory education, with a particular focus on tracheostomy care, bronchoscopy, and intercostal drain (ICD) insertion.

Methods

We received a grant from Cardiff Capital Region to undertake a rapid innovation project, consisting of 3 main phases: 1) feasibility; 2) development; and 3) testing. The project was officially launched in April 2021 and lasted 12 months.

Project governance was provided via the Small Business Research Initiative for clinical excellence, a project board, and a project team with clinical expertise in both the delivery of respiratory and tracheostomy education and the provision of simulation training in healthcare.

Results

Phase 1 & 2:

Phase one focused on the development of minimally viable solutions, with two industries, RescapeVR and NudgeReality, selected for phase 2 to further develop virtual reality (VR) based solutions for tracheostomy care, bronchoscopy and ICD insertion. Each solution included options for independent, peer assisted and multi-user sessions; and were based existing NHS Wales training programmes and BTS curriculums.

Phase 3:
Testing of both solutions was undertaken over an 8-week period, across 6 Health Boards in NHS Wales involving over 100 clinicians, with highly positive user feedback for face and content validity, as well as 97% of users reporting perceived benefits to patient care. Multi-user training was particularly well received with ability for trainers to provide direction and feedback remotely via the VR platforms.

Discussion / Conclusion

The provision of essential respiratory education has been severely affected by the covid-19 pandemic. Evolving immersive technologies have the potential to compliment and augment training programmes, whilst providing supportive environments for trainees to become safe, efficient, and competent in clinical practice.

3) Delivery of two international respiratory education webinar series during the COVID-19 pandemic

[1]SA Ananth, [2]AMM Malhotra, [2]KLG Le Grice, [2]NS Smallcombe, [2]BV Vijayakumar, [2]MB Beckles, [2]PAC Corris, [2]JB Blaikley, [2]ESS Suh, [2]AL Lalvani, [2]NS Shah. [1]Department of Respiratory Medicine, West Hertfordshire Teaching Hospitals NHS Trust, Watford, UK; [2]Respiratory Section, Royal Society of Medicine, London, UK.

Introduction

The COVID-19 pandemic created a need for novel methods of delivering medical education due to the unavailability of in-person teaching. The Royal Society of Medicine (RSM) traditionally delivered all educational events in-person, and a shift to virtual delivery presented a significant cultural challenge.

Methods

Between July 2020-February 2022, the Respiratory section at the RSM innovated 2 international webinar series, consisting of 15 webinars. Each webinar was between 1.0-2.5 hours long. Content was structured around the respiratory specialty trainee curriculum. The webinars featured a mixture of lectures and interactive panel discussions. The webinars were available to a global audience. Feedback was collected anonymously and independently verified by an RSM events executive not involved in the delivery of the webinar series. Delegate demographics were compared with the 7 in-person events organised by the RSM's Respiratory section in October 2017- March 2020.

Results

Table 1 highlights the webinar topics for both series. The webinar series received an average of 158.3 registrations per webinar, compared to 102.6 registrations for the pre-COVID in-person events. A greater proportion of delegates for the webinar series were from outside London compared to the pre-COVID in-person events (72.4% vs 60.0%; $P < 0.001$). 98.4% (1056/1073) of delegates would recommend the webinar that they watched to a colleague, while 98.7% (989/999) stated that the webinar met or exceeded their expectations. 88.2% (740/839) of delegates watched their webinar live, while 11.8% (99/839) watched a recorded version. 54.2% (26/48) of speakers were respiratory physicians- the other speakers were from the wider respiratory multi-disciplinary team, such as respiratory scientists (12.5%, 6/48) and cardiothoracic surgeons (4.2%, 2/48). Qualitative feedback demonstrated that ease-of-access to the educational content was a primary benefit of this teaching style, and many delegates requested cross-specialty webinars (such as respiratory medicine and rheumatology).

Conclusions

Online respiratory education reaches a broader audience than in-person events, while still being well-received. Educational organisations should strongly consider the merits of virtual delivery of education compared with in-person delivery. Further research is needed to elucidate the benefits of hybrid models combining both forms of education delivery.

Date	Webinar Topic
Series 1	
08/07/20	Pleural complications of COVID-19
20/07/20	COPD and COVID-19
13/08/20	Cross-sectional imaging in COVID-19
11/10/20	ILD and pulmonary vascular disease in COVID-19
22/10/20	Respiratory medicine: career introduction
10/11/20	Lung cancer
09/02/21	Cystic Fibrosis and bronchiectasis
14/04/21	Interventional bronchoscopy
24/05/21	Pulmonary hypertension
15/06/21	Circadian rhythms and respiratory health
Series 2	
21/09/21	eCigarettes, lung cancer and integrated care
28/09/21	Airways disease and digital health
14/10/21	Extremes of respiratory health
02/12/21	Interstitial Lung Disease
03/02/22	Psychology of respiratory medicine

***Table 1** Webinar series schedules*

4) The Home Mechanical Ventilation (HMV) for Patients with Chronic Obstructive Pulmonary Disease (COPD) Educational Website

[1]L Emmett. [1]Leeds Teaching Hospital, Leeds, UK.

The Home Mechanical Ventilation for Patients with Chronic Obstructive Pulmonary Disease (HMV/COPD) educational website has been developed in collaboration with members of the Multi-disciplinary team (MDT) including respiratory consultants, clinical nurse specialists, specialist respiratory physiotherapists, plus patient and carer involvement throughout. Several Home Ventilation Centres were represented with a wealth of knowledge and practical experience in this field.

The aim was to provide an innovative informative digital platform on home Non-invasive ventilation (NIV) for patients with COPD, their family, carers and clinicians.

Why we developed the website - we don't believe that anything existed previously which provided practical and accessible information for patients, their family, carers, and for healthcare

professionals for whom the site provides information and support for HMV services. The website is inclusive, accessible and easy to navigate with a mixture of written information and videos with real patient stories and accounts.

The videos are subtitled for those with a hearing impairment and provide an alternative means of acquiring information for people who struggle with reading or are visually impaired.

Along with the benefit for patients, the site has a dedicated section for clinicians, developed to share experience and expertise to support centres operating HMV services. Another aim was to encourage more hospitals to consider adding this service to their treatment options, proven to be life-enhancing for patients with COPD, improving quality of life and reducing both hospital admissions and length of stay.

Due to the online nature, the content can be updated in a timely manner secondary to evidence-based developments in home NIV.

Future plans include additional content for the many other conditions that may benefit from long term home ventilation, including spinal cord injuries and progressive neuromuscular conditions.

As a group, we are keen to share this website and welcome any feedback to further develop and improve the site.

Planning to launch April 2022

The site can be accessed from **http://hmvip.co.uk**

5) Respiratory Emergency Simulation Teaching (REST) in a multi-disciplinary team (MDT) setting at Portsmouth Hospitals University Trust

[1]A Elrick, [1]L Carnall, [1]R Gonzalez, [1]L Camfield, [1]F Thompson.
[1]Queen Alexandra Hospital, Portsmouth, England.

Introduction and aims

During the Covid-19 pandemic our respiratory high dependency unit (RHDU) increased bed capacity by 200%, recruited new staff to provide highflow nasal oxygen and CPAP support, and was relocated within the hospital. This necessitated the need to upskill staff to provide level 2 care to sick patients in a new environment.

We provided training to nurses, healthcare assistants and junior doctors on RHDU via an MDT simulation programme to manage deteriorating respiratory patients. We also looked for potential gaps in policy and procedures following relocation of RHDU.

Methods

The pilot included 22 sessions of in-situ simulation, run weekly by a core faculty including a respiratory consultant, ward sister, senior HCA, and clinical educator. All scenarios focussed on MDT working with effective assessments and handovers.

Results-Organisational learning

All staff members on the ward wore the same scrubs making it challenging to identify the job role or seniority of staff and this was noticeable during the simulations. Coloured lanyards identifying job role were purchased and now worn by all RHDU staff.

An anaphylaxis simulation identified a time delay in finding the key to access emergency medication. A key safe has been purchased by the ward to house this key, ensuring it is always available in an emergency.

Results-Staff learning

The themes identified were: An increase in the confidence, competence, and knowledge in recognising and treating medical emergencies. It also developed the working relationships between MDT members by highlighting the skillsets of different professions, allowing for an exchange of knowledge across all working levels.

Conclusion

Our MDT simulation is an excellent resource for learning plus it highlights potential obstacles to optimal safe working. It provides a place to practice new skills, and breaks down the barriers to effective communication within the MDT by creating a cohesive learning environment.

Future

A monthly training programme has been developed consisting of four hours of simulation training using different levels of fidelity. We will continue to employ the use of MDT working to reflect real life working based on the success of this pilot.

6) Establishing an inter-deanery collaborative online Respiratory SCE revision course

[1]H Elder, [2]J Bradley, [2]C Rowan, [2]G Ahuja, [1]M Bhatnagar, [1]H Carlin, [3]K Williams, [1]I Forrest. [1]Newcastle upon Tyne Hospitals Foundation Trust, Newcastle, UK; [2]Leeds Teaching Hospitals Trust, Leeds, UK; [3]The Mid Yorks Hospitals NHS Trust, Wakefield, UK.

Introduction

The COVID-19 pandemic inspired us all to consider innovative ways to meet training needs. During the pandemic, within the Northern and Yorkshire & Humber deaneries, we designed and established a new, weekly, collaborative teaching programme over a three-month period prior to the Respiratory SCE exam. Expert speakers with understanding of the SCE exam format were invited to provide online teaching sessions to trainees sitting the exam. Teaching included online interactive polls and feedback was obtained from each session, and overall at the end. Content was matched to the respiratory curriculum and exam blueprint.

Methods

25 trainees identified themselves as preparing for the SCE exam. 11 sessions were delivered with an average of 22 trainees attending per session (range 18-25). Sessions were recorded and available to trainees on demand. Online surveys were used to gain feedback, utilising a combination of Likert scales and open text responses. Feedback response rate averaged 66% for the individual sessions and 76% for the final survey.

Results

The percentage of trainees who found the sessions very or extremely useful for revision was 95%. All agreed or strongly agreed the sessions were convenient and relevant to the exam, with 95% stating they would recommend the sessions to a colleague. When asked, 79% stated they would prefer

predominantly online sessions in the future, with 5% preferring predominantly face-to-face teaching.

Free text comments were largely positive including "This was really excellent teaching for respiratory in general but also great cases/ questions and in keeping with SCE". The more relaxed online session format was commented on positively, as well as the knowledge and enthusiasm of the presenters.

Discussion

The revision sessions provided comprehensive teaching on key curriculum areas and worked well in combination with existing revision resources. Overall, feedback was very positive and highlighted value to trainees for revision. The inter-deanery, online nature of this course has widened exposure to expert teaching for both deaneries and sessions were well attended. The course was re-run in 2021 with similarly excellent feedback and we aim to make the course a permanent resource for the two deaneries.

PHYSIOLOGY QUIZ

Quiz organised by Jessica Swan and Mark Unstead, Respiratory Physiology Department, Royal Berkshire NHS Foundation Trust.

Throughout both days of the Meeting, delegates will be able to access the Physiology Quiz cases on the Summer Meeting App, to test their knowledge studying the individual cases, before revealing the answers.

Also, join the session on Friday 24th June from 11.05am to 12.00pm, where Jessica and Mark will discuss the cases and answer questions from delegates.

CASE STUDY 1

Background

Reason for referral: Patient admitted with COVID-19 that required CPAP and oxygen. Attended for routine lung function as part of follow up.

Occupation: Butcher

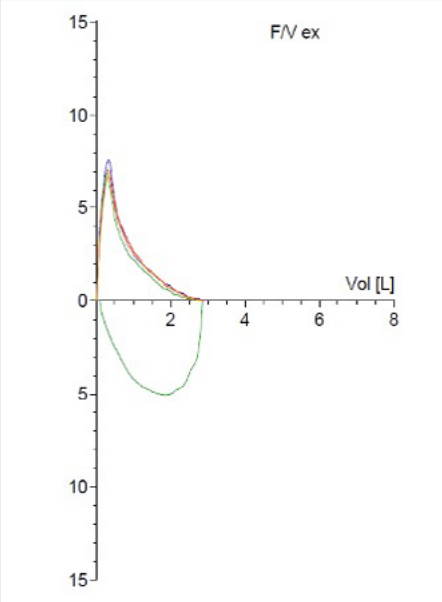
History: Multiple surgeries as an infant, asthma.

Lung Function

Age: 33 years **Sex:** M

Height: 173cm **Weight:** 122.6kg **BMI:** 41kg/m2

		Pred	Best	% Pred	Z-Score
FVC	[L]	4.79	2.89	60	-3.12
FEV1	[L]	4.02	2.03	50	-3.91
FEV1%FVC	[%]	81.45	70.15	86	-1.58
PEF	[L/s]	9.40	7.62	81	-1.47
VC_max	[L]	5.01	2.91	58	-3.75
TLC-He	[L]	6.74	4.40	65	-3.35
FRC-He	[L]	3.25	2.23	69	-1.70
RV-He	[L]	1.74	1.49	86	-0.61
TLCO_SB	[mmol/(min*kPa)]	11.08	10.61	96	-0.34
KCO_SB	[mmol/(min*kPa*L)]	1.64	2.57	157	3.44
VA_SB	[L]	6.59	4.12	63	

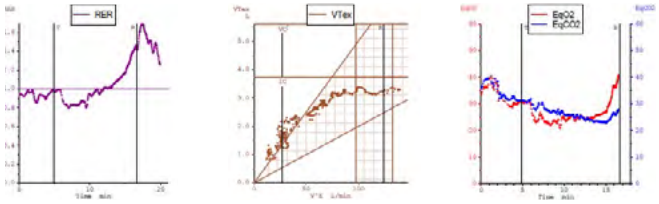


Questions

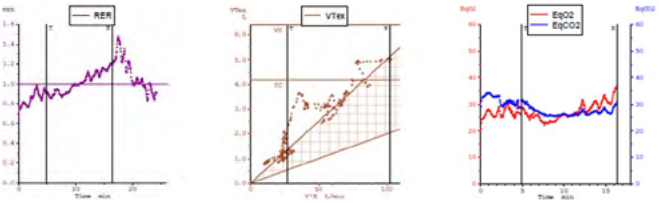
1) From the lung function results, describe the most likely physiological abnormality?
2) At what lung volume is KCO the highest?
3) What further tests should be considered?

CASE STUDY 2

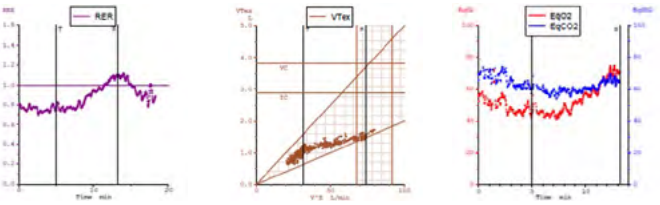
Patient A



Patient B



Patient C



Questions

4) From the data available, what is the diagnosis most physiologically compatible for each patient?
5) How do you differentiate between lung disease and dysfunctional breathing?
6) What would you expect a normal maximal tidal volume to be?

CASE STUDY 3

Background

Reason for referral: Follow up following recent hospital admission.

Occupation: Builder

History: 50 pack year smoking history

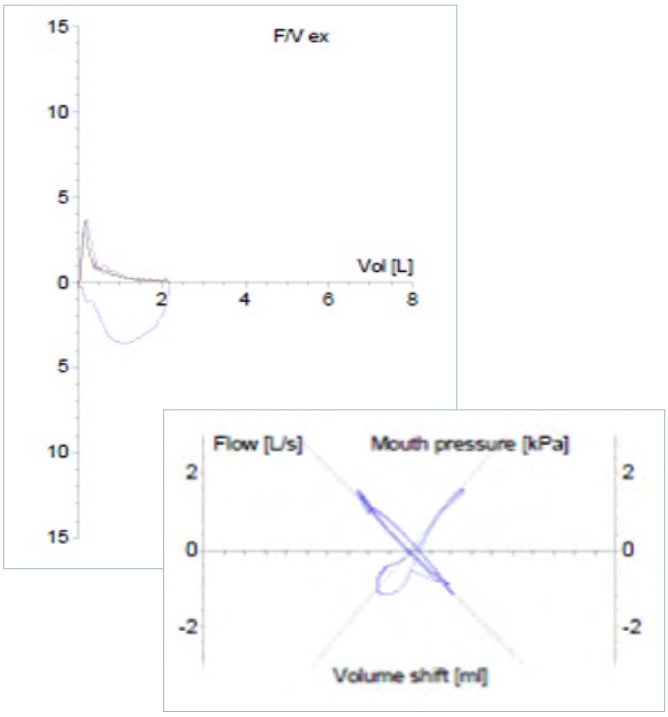
Diagnostic tests: Referred for lung function

Lung Function

Age: 84 years **Sex:** M

Height: 170cm **Weight:** 81.1kg **BMI:** 28kg/m2

		Pred	Best	% Pred	Z-Score
FVC	[L]	3.27	2.17	66	-1.80
FEV1	[L]	2.38	1.00	42	-2.71
FEV1%FVC	[%]	72.09	46.30	64	-3.60
PEF	[L/s]	6.98	3.71	53	-2.70
TLC-Pleth	[L]	6.50	3.87	60	-3.76
FRC-Pleth	[L]	3.64	3.19	87	-0.76
RV-Pleth	[L]	2.85	1.80	63	-2.54
RV%TLC-Pleth	[%]	46.72	46.54	100	-0.03
TLCO_SB	[mmol/(min*kPa)]	7.31	4.04	55	-2.32
KCO_SB	[mmol/(min*kPa*L)]	1.12	1.39	124	1.07
VA_SB	[L]	6.35	2.91	46	



Questions

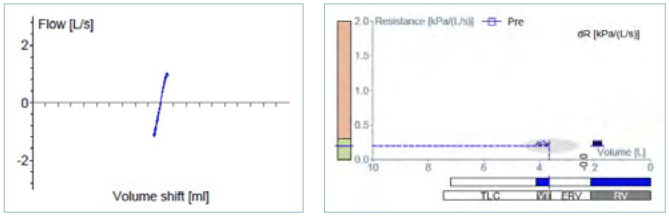
7) Describe the physiological abnormalities seen on the lung function results.

8) What is the most likely physiological reason for his exertional dyspnoea?

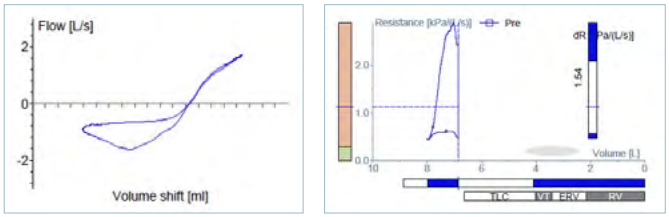
9) Describe the results of the resistance/volume graph.

CASE STUDY 4

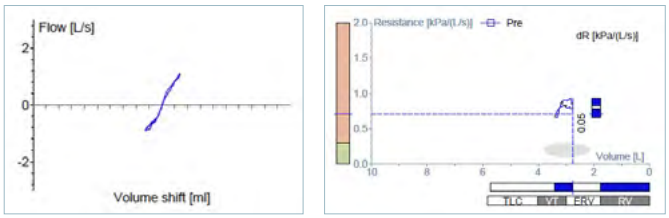
Patient A



Patient B



Patient C



Questions

10) What type of airways resistance do these patients have?

11) What is a normal airways resistance in an adult?

12) From looking at the resistance loops, which patient would show airways obstruction on the flow volume loop?

CASE STUDY 5

Background

Reason for referral: New referral for stand alone lung function.

History: Pre kidney transplant

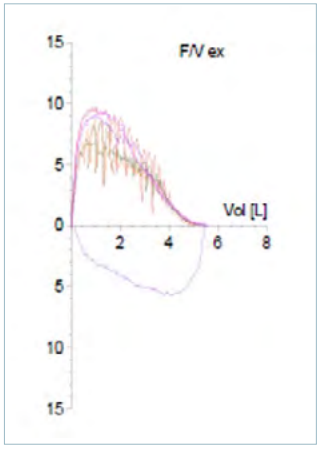
Lung Function

Age: 47 years **Sex:** M

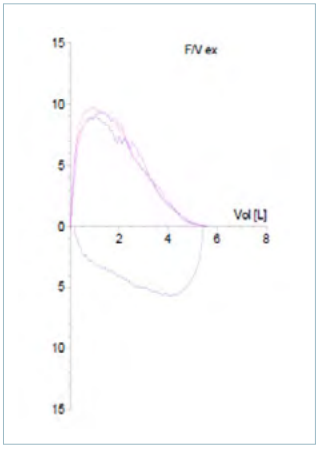
Height: 174cm **Weight:** 85.5kg **BMI:** 28kg/m2

		Pred	Best	% Pred	Z-Score
FVC	[L]	4.46	5.56	125	1.80
FEV1	[L]	3.63	4.43	122	1.58
FEV1%FVC	[%]	78.75	79.74	101	0.14
PEF	[L/s]	8.81	9.80	111	0.82
VC_max	[L]	4.65	5.49	118	1.51
TLC-He	[L]	6.82	7.96	117	1.62
FRC-He	[L]	3.40	4.34	127	1.55
RV-He	[L]	2.08	2.47	118	0.93
RV%TLC	[%]	32.29	30.99	96	-0.24
TLCO_SB	[mmol/(min*kPa)]	10.20	5.53	54	-3.31
KCO_SB	[mmol/(min*kPa*L)]	1.49	0.80	53	-2.71
VA_SB	[L]	6.67	6.94	104	

Sub-maximal flow volume loop



Maximal flow volume loop



Questions

13) Describe the patients lung function results?

14) What do the graphics on the sub-maximal flow demonstrate?

15) What further tests should be considered?

CASE STUDY 6

Background

Reason for referral: Athletic individual, symptomatic during training sessions.

Diagnostic tests: Referred for CPET.

Spirometry

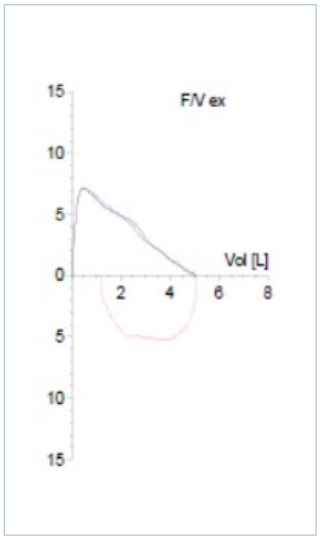
Age: 25 years **Sex:** F **Height:** 166.5cm

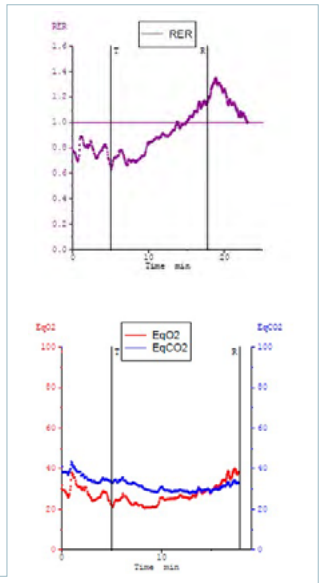
Weight: 72.3kg **BMI:** 26kg/m2 **FeNO:** 34ppb

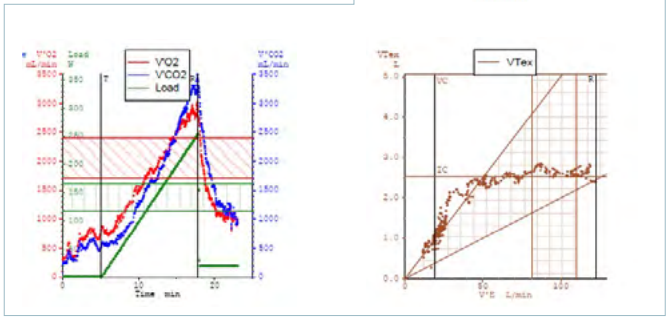
		Pred	Best	% Pred	Z-Score
FVC	[L]	3.84	5.04	131	2.80
FEV1	[L]	3.35	3.76	112	1.07
FEV1%FVC	[%]	84.35	74.59	88	-1.50
PEF	[L/s]	7.30	7.34	101	0.04

CPET

Summary	Rest	AT	Peak VO2	% Pred (max)
Load (w)	0	196	252	177
VE (L/min)	18	73	122	127
VO2/kg (mL/min/kg)	8.4	31.8	38.6	146
VO2 (mL/min)	660	2482	3014	146







Questions

16) Describe the patients Spirometry and FeNO results?

17) What does the CPET data demonstrate?

18) What further tests should be considered?

EXHIBITORS' INFORMATION

ABBOTT POINT OF CARE

Stand: 8
Tel: 07766 248 815
Email: kylee.charles@abbott.com
Web: www.abbott.com

Deliver a new model of respiratory care with Abbott's Point of Care i-STAT® System.

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ACTION FOR PULMONARY FIBROSIS (APF)

Stand: 29
Tel: 01733 475 642
Email: Support@actionpf.org
Web: www.actionpf.org

Action for Pulmonary Fibrosis (APF) is a growing community of patients, families, researchers and healthcare professionals striving to find a cure for pulmonary fibrosis so everyone affected by the disease has a better future. We provide personalised support to patients and families and raise awareness of pulmonary fibrosis through campaigning, fundraising and education. We are also committed to funding research to improve the quality of life for people living with pulmonary fibrosis today and tomorrow.

THE ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS IN RESPIRATORY CARE (ACPRC)

Stand: 32
Email: secretary@acprc.org.uk
Web: www.acprc.org.uk

The Association of Chartered Physiotherapists in Respiratory Care promotes health and best practice in respiratory physiotherapy for the benefit of all. With over 1700 members, the ACPRC is the largest national body of physiotherapists interested in all aspects of respiratory care. Connecting with our members is at the heart of our organisation, and in addition to our ACPRC Conference which is taking place in April 2023, we also engage with members via:

- Regular short courses
- Monthly e-Newsletters with latest updates for our members
- A dedicated ACPRC Facebook page **www.facebook.com/TheACPRC**
- Monthly twitter chats via our ACPRC twitter account **twitter.com/TheACPRC**
- A website which is packed with resources for members **www.acprc.org.uk**
- Support with publishing your research
- Education grants

Furthermore, we support the development of National Guidelines related to cardio-respiratory care and aim to publish two journals a year which are delivered electronically to every one of our 1700+ members.

APR MEDTECH LIMITED

Stand: 24
Tel: 07539 111 342 / 01844 340 620
Email: michael.pichel@aprmedtech.com
Web: www.aprmedtech.com

APR Medtech is a specialist independent medical technology company. Our main purpose is to provide high quality medical devices and support services to the NHS and private healthcare sector. Product education and training are a core part of our activities. Since our inception in 2014, we are proud to have introduced several new and innovative 'medtech' products into the UK. This year we are delighted to present the Passio Pump Drainage System; the world's first digital handheld drainage system used for the home management of recurrent pleural effusions. Passio has been designed to provide reliable low-level suction without the need to use pre-evacuated drainage bottles. We are delighted to be exhibiting at the BTS Summer Meeting 2022.

BOSTON SCIENTIFIC

Stand: 13
Email: Benjamin.Godfrey@bsci.com
Web: www.bostonscientific.eu

Boston Scientific transforms lives through innovative medical solutions that improve the health of patients around the world. As a global medical technology leader for more than 40 years, we advance science for life by providing a broad range of high performance solutions that address unmet patient needs and reduce the cost of healthcare.

For more information, visit **www.bostonscientific.eu** and connect on Twitter and Facebook.

BOWA MEDICAL UK

Stand: 11
Tel: 01364 652 426
Email: uk.marketing@bowa-medical.com
Web: https://bowa-medical.co.uk

BOWA MEDICAL UK are pleased to introduce a new choice in surgical stapling, the AEON™ ENDOSTAPLER. Designed and manufactured in Boston, Massachusetts by Lexington Medical Int., this disruptive innovation in minimally invasive Thoracic Surgery is now available in the UK market.

The AEON Endostapler is widely adopted as the gold standard by Surgeons around the world owing to its breakthrough S_3 Engineering™ design features including:

- SUPERIOR STAPLE LINES
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BOWA MEDICAL UK is the UK designer and manufacturer of BOWA LOTUS, a powerful torsional ultrasonic scalpel. Specialising in electrosurgery devices, BOWA MEDICAL UK offers a complete energy-based product portfolio including smoke management systems.

Twitter: **@BOWAMEDICALUK**

LinkedIn: **www.linkedin.com/company/bowa-medical-uk**

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BRONCUS MEDICAL, INC / UPTAKE MEDICAL

Stand: **14**
Tel: **+1-650-428-1600**
Email: **sales@broncus.com**
Web: **www.uptakemedical.com**

The Archimedes® Navigation System integrates CT and fused fluoroscopy to provide 3D, real-time Guided Transbronchial Needle Aspiration (TBNA) and Bronchoscopic Trans-Parenchymal Nodule Access (BTPNA). The system combines nodule, vessel and airway mapping technology to ensure a safe and efficient Guided TBNA or BTPNA procedure. Archimedes is the only navigation system that provides multiple bronchoscopic techniques to access a nodule regardless of size, location or the presence of a bronchus sign.

The InterVapor® System is designed to deliver targeted Bronchoscopic Thermal Vapor Ablation (BTVA®) to ablate the most diseased lung segments and results in a reduction in emphysematous tissue and volume.

BRITISH THORACIC ONCOLOGY GROUP (BTOG)

Stand: **31**
Tel: **07810 016 414**
Email: **info@btog.org**
Web: **www.btog.org**

The vision of British Thoracic Oncology Group (BTOG) is to contribute to achieving survival rates equal to the best in the world.

The mission of BTOG is to support and educate thoracic oncology healthcare professionals, creating a professional community to exchange ideas, information and innovation and to foster the development of research.

The overall aim is to represent the needs of people with thoracic malignancies in the UK and ensure they have equitable access to optimal care.

Membership to BTOG is free of charge – keep up-to-date and access the BTOG On-line resources including presentations, videos and the digital edition of the Lung Cancer Journal.

Twitter: **@BTOGORG**

CHIESI LIMITED

Stand: **18 & 19**
Tel: **0161 488 5555**
Email: **contact.uk@chiesi.com**
Web: **www.chiesi.uk.com**

Chiesi Limited is headquartered in Manchester and employs over 400 people. Based in Parma, Italy, Chiesi Farmaceutici is an international research-focused group with over 85 years' experience in the pharmaceutical sector operating in 30 countries, employing around 6,000 people. To achieve its mission of improving people's quality of life by acting responsibly towards society and the environment, Chiesi researches, develops and markets drugs in its three therapeutic areas: AIR (respiration, from new-born to adult populations), RARE (rare and ultra-rare diseases) and CARE (special care and consumer-facing self-care). Chiesi, since 2019, is the world's largest B Corp certified pharmaceutical group.

Further information: **www.chiesi.uk.com**

GENERAL MEDICINE GROUP

Stand: **21**
Tel: **020 3833 1456**
Email: **Kiran.Timney@generalmedicinegroup.co.uk**
Web: **www.generalmedicinegroup.co.uk**

The General Medicine Group are the UK's largest medicine solutions partner, placing locum and permanent medicine doctors in to NHS and private sector clients. We strive to provide you with a high-quality service and pride ourselves on the relationships built with both candidates and clients.

With over 12 years combined experience in management positions within UK locum agencies, the founders of the General Medicine Group identified a critical shortage of Respiratory Consultants within the NHS and overseas. We have placed consultants into Locum Respiratory positions throughout the COVID-19 pandemic. This enabled our clients to help deal with increased waiting lists and ward pressures.

We look forward to continue building our well-established relationships with both our candidates and our clients and continuing to supply high-quality solutions to our clients nationwide.

GILEAD SCIENCES

Stand: **23**
Web: **www.gilead.co.uk**

Gilead Sciences, Inc. is a biopharmaceutical company that has pursued and achieved breakthroughs in medicine for more than three decades, with the goal of creating a healthier world for all people. The company is committed to advancing innovative medicines to prevent and treat life-threatening diseases, including HIV, viral hepatitis and cancer. Gilead operates in more than 35 countries worldwide, with headquarters in Foster City, California

HUNAN VATHIN MEDICAL INSTRUMENT CO LTD

Stand: 12
Tel: +86 021 34 78 12 26 / +86 182 70 89 37 6
Email: marketing@vathin.com
Web: www.vathin.com

Hunan Vathin Medical Instrument Co Ltd specializes in the production, development and sales of single-use endoscopes.

Our extensive product catalogue includes endoscopes, respiratory, urology, gastroenterology, proctology, ENT, gynaecology, orthopaedic, and many other medical fields. Furthermore, the disposable bronchoscopes that we have created have obtained several international patents and are widely praised by doctors worldwide, leading the development of the global bronchoscopy industry.

INSMED

Stand: 15
Tel: 01273 986 006
Email: christopher.annis@insmed.com
Web: www.insmed.com

Insmed is a global biopharmaceutical company on a mission to transform the lives of patients with serious and rare diseases. We are powered by purpose, a purpose to serve patients and their families with unwavering dedication. A purpose to find solutions where there were none before. A purpose to do what's right, even when it isn't easy. A biotech company that empowers great people to deliver, with a profound sense of urgency and compassion, life-altering therapies to small patient populations experiencing big health problems.

INSPIRE, the INtegrated reSPIratory REsearch collaborative

Stand: 3
Email: inspire.resp.research@gmail.com
Web: www.inspirerespiratory.co.uk

INSPIRE is the UK's research network for early career doctors and allied health professionals in respiratory medicine. INSPIRE aims to encourage and support engagement in clinical research by early career clinicians in respiratory medicine. We will facilitate design of high quality research and delivery at national scale. Our first two studies have been selected and design is underway, but applications for the next round will open later this year. To get involved with INSPIRE please see the website below or contact us for more information.

Twitter: **@INSPIREresp_uk**

IT'S INTERVENTIONAL

Stand: 9
Web: www.itsinterventional.com

It's Interventional (formerly UK Medical) is an SME based in Sheffield. Our aim is to be different in an increasingly undifferentiated world. We select proven, clinically effective medical devices and are proud to introduce our brand-new IPC to the BTS. The Aspira™ Drainage System is a long-term indwelling catheter designed for palliative management of recurrent pleural effusion / malignant ascites. Aspira™ is IPC evolved, with new methods of catheter implant, designed for easier adoption and a cleaner procedure, as well as improved drainage options designed to maximise patient comfort / convenience during home care.

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Stand: 10
Web: www.janssen.com

At Janssen, we are working towards a new era for pulmonary hypertension (PH), aiming to transform the disease into a long-term manageable condition so that patients can live a normal life.

Our goal is to help tackle the diagnosis gap that is delaying patient's access to the care they need. This means addressing unmet needs across the patient journey, including screening and diagnosis with echocardiography and our pipeline of new treatment approaches.

Discover Act on PAH

MESOTHELIOMA UK

Stand: 30
Tel: 0800 169 2409
Email: info@mesothelioma.uk.com
Web: www.mesothelioma.uk.com

Mesothelioma UK is a national specialist resource centre, specifically for the asbestos-related cancer, mesothelioma. The charity is dedicated to providing specialist mesothelioma information, support and education and to improving care and treatment through robust and rigorous experience-based research, to benefit the people diagnosed with mesothelioma, their families and carers.

The charity integrates into NHS front line services to ensure specialist mesothelioma nursing is available at the point of need. This is achieved through a growing network of specialist mesothelioma nurses, regionally based in NHS hospitals but funded by Mesothelioma UK.

THE RESPIRATORY ACP NETWORK

Stand: 6
Web: www.respiratoryacpnetwork.co.uk

The Respiratory ACP Network was established to create a forum for any Nurse, AHP and PA to share education. The aim of the network is to call upon the collective experience to share best practice, share and develop policies and procedures and help newer teams establish themselves within their respective departments. We are also aiming to become a leading voice for respiratory advanced practice by becoming involved with established national partners to help shape the future for advanced practitioners specialising in respiratory medicine.

We are aiming to provide education and development opportunities for all Nurses, AHPs and PAs working at advanced level in respiratory medicine.

For more information see our website at **www.respiratoryacpnetwork.co.uk** or get in touch via Twitter **@RespiratoryACP**

RESPIRATORY PROFESSIONAL CARE

Stand: **20**
Tel: **02476 719 683**
Email: **respiratorypc@closerstillmedia.com**
Web: **www.respiratory-professionalcare.co.uk**

Respiratory Professional Care is the place for the entire respiratory community to meet face-to-face, network, share best practice, gain CPD and plan for the future. Returning for its third year on 12-13 October 2022 at the NEC Birmingham, our cutting edge and practical agenda – shaped by an advisory board of experts – will ensure that everyone leaves with actionable learnings.

We also feature the UK's largest trade floor of industry products and services, giving you prime time to see and demo the latest products for your role.

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SANDOZ

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Web: **www.sandoz.uk.com**

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We welcome applications for membership from all who work in respiratory healthcare in all settings in medicine, and other professions who share our ambition to improve standards of care for people with respiratory diseases and to support those who provide that care.

Member benefits include:

- Access to our highly regarded journal, Thorax (some categories of membership only)
- Excellent delegate discounts to our short courses and annual Summer and Winter Meetings
- Free access to BTS e-Learning modules
- UK based BTS members receive a heavily discounted membership rate for the European Respiratory Society, and full access to ERS member benefits
- The opportunity to become involved in our work via an annual call for volunteers to stand for election for one of our Committees, Specialist Advisory Groups or Guideline Groups
- Discounted author submission fee for papers accepted by BMJ Open Respiratory Research

Members pay a 12-month subscription which is renewable on 1 July. Members who join between 1 August and 30 April will pay a pro rata sum of the membership rates. Members who join between 1 May to 31 July will pay the costs as outlined on the website, which covers their membership until the end of June the following calendar year.

We offer a discount for members who are on parental leave or sick leave for three months or longer.

Membership of the Society is not open to persons who are, or have been, full or part-time employees of, or paid consultants to, the tobacco industry at any time during the previous 10 years.

For membership categories, rates and further details or to join on-line, please visit our website at:
www.brit-thoracic.org.uk/about-us/join-now

Alternatively, speak to one of the team on the BTS stand during the Summer Meeting.

British Thoracic Society

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