SUMMER MEETING 2023

British Thoracic Society

Final Programme

THURSDAY 22 AND FRIDAY 23 JUNE 2023

UNIVERSITY PLACE, THE UNIVERSITY OF MANCHESTER
OXFORD ROAD, MANCHESTER M13 9PL

Conference Information
Speakers' Details
Presentation Summaries
Abstract Prizes
Exhibitor Information

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 back to University Place.

The Summer Meeting will be onsite only, as this event emphasises the value of meeting colleagues, sharing experiences and having those one-to-one interactions that can sometimes be missed from online events. While there will be no live online content, after the event, all delegates who have attended the Meeting will be sent a website link to access video recordings of the main sessions and guest lecture. These will be available to view until 22 September 2023. BTS also continues to provide an extensive programme of live online education via our Short Courses, the vast majority of which remain online.

As always, the Summer Meeting provides a comprehensive, clinically grounded programme, delivering a wide range of topics. The speakers are chosen carefully to ensure the wider multi-disciplinary team is fully represented and I am confident that we have a programme that delivers for the whole respiratory team.

Highlights include:

- **Mini short courses** in interstitial lung disease and pulmonary vascular medicine. 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 lung cancer screening, including content which is relevant to all members of the respiratory team. To aid trainee delegates, the programme has been mapped to the respiratory curriculum.
- **Abstract Prizes** return, with two exciting categories: "Improving quality and excellence in patient care" and "Improvements 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 displayed as digital posters in the exhibition hall. The work will also be presented in two spoken sessions, 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 prize.
- This year's **Guest Lecture** will be given by Dr Richard Hixson, co-Chair of the County Durham and Darlington NHS Foundation Trust and co-Founder of Healthcare Ocean, who will speak on "Human healthcare and the ocean". This promises to be an eye-opening lecture that focuses on how we, in respiratory medicine, can reduce our negative environmental impact on the planet.
- The **Physiology quiz** is always popular and returns with digital cases available on the conference App and an interactive question-and-answer session during the programme.
- The **Exhibition** – 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 this area to meet fellow professionals, network and share ideas.
- The **President's Reception** – all delegates are warmly invited to this informal social event, which will be held in the conference centre at 6.00pm on Thursday 22 June, and where prizes will be awarded for the Abstract Prizes and Clinical Grand Round.

I am delighted to have been appointed as Chair of the BTS Education and Training Committee. Dr Allie Hare has paved the way for the last four years. She is a strong advocate for ensuring the entire respiratory workforce is represented in programme development and delivery of education and events within the Society, and I hope to continue with this.

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.

Alison Armstrong
Chair, BTS Education and Training Committee

@BTSrespiratory @AlisonArmstron
#BTSSummer2023 #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 2023. 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:

AstraZeneca
BD
Broncus Medical / Uptake Medical
Chiesi
GSK
Insmed
It's Interventional
Sterling Anglian Pharmaceuticals

PROGRAMME AT A GLANCE
THURSDAY 22 JUNE 2023

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 conference App	Foyer, The Drum & The Market (ground floor)
9.30am – 11.00am	Year in review – Transitions: "Balancing the pressures"	Theatre B (1st & 2nd floors)
9.30am – 11.00am	Tobacco dependency: moving from darkness to light	Theatre A (3rd & 4th floors)
9.30am – 11.00am	Cystic fibrosis: emerging challenges in care	Classroom 2.219/2.220 (2nd floor)
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 conference App	Foyer, The Drum & The Market (ground floor)
11.30am – 1.00pm	Pulmonary infections in immunocompromised individuals and in returning travellers: what you need to know in 2023	Theatre B (1st & 2nd floors)
11.30am – 1.00pm	Clinical Grand Round	Theatre A (3rd & 4th floors)
11.30am – 1.00pm	Patient self-management: does it work and could it be better?	Classroom 2.219/2.220 (2nd floor)
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 conference App	Foyer, The Drum & The Market (ground floor)
2.00pm – 2.30pm	Abstract Prize spoken session – Category: Improving quality and excellence in patient care	Classroom 2.219/2.220 (2nd floor)
2.30pm – 4.00pm	My patient has asthma: what are the risks?	Theatre B (1st & 2nd floors)
2.30pm – 4.00pm	Mini short course: part 1 – Supportive therapies in ILD: it's not just about antifibrotics	Theatre A (3rd & 4th floors)
2.30pm – 4.00pm	Joint BTS/BSTI Radiology symposium	Classroom 2.219/2.220 (2nd floor)
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 conference App	Foyer, The Drum & The Market (ground floor)
4.30pm – 6.00pm	Joint BTS/ARTP symposium – CPEX and air travel	Theatre B (1st & 2nd floors)
4.30pm – 6.00pm	Mini short course: part 2 – Controversies in ILD	Theatre A (3rd & 4th floors)
4.30pm – 6.00pm	The clinical approach to sleep related breathing disorders: reconciling guidelines with real life and what to do when they don't cover what is in front of you	Classroom 2.219/2.220 (2nd floor)
6.00pm – 7.00pm	**The BTS President's Reception – All welcome!** Including presentation of the Abstract Prize award for "Improving quality and excellence in patient care" and the Clinical Grand Round prize	The Drum (ground floor)

PROGRAMME AT A GLANCE
FRIDAY 23 JUNE 2023

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 conference App	Foyer, The Drum & The Market (ground floor)
8.30am – 10.00am	Screening: beyond the early detection of lung cancer	Theatre B (1st & 2nd floors)
8.30am – 10.00am	"I spy with my little eye …": occupational lung disease for respiratory physicians	Theatre A (3rd & 4th floors)
8.30am – 10.00am	Inequalities in pulmonary rehabilitation	Classroom 2.219/2.220 (2nd floor)
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 conference App	Foyer, The Drum & The Market (ground floor)
10.30am – 12.00pm	Boosting the breath in COPD	Theatre B (1st & 2nd floors)
10.30am – 11.00am	Abstract Prize spoken session – Category: Improvements in respiratory education and training	Classroom 2.219/2.220 (2nd floor)
11.05am – 12.00pm	Physiology quiz live Q&A session	Theatre A (3rd & 4th floors)
12.05pm – 1.00pm	Guest Lecture – Human healthcare and the ocean Including presentation of the Abstract Prize award for "Improvements in respiratory education and training"	Theatre B (1st & 2nd floors)
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 conference App	Foyer, The Drum & The Market (ground floor)
1.10pm – 1.55pm	A+LUK Respiratory Innovation and Collaboration Event	Classroom 4.205/4.206 (4th floor)
2.00pm – 3.30pm	Difficult choices in cough: pro-con debates	Theatre B (1st & 2nd floors)
2.00pm – 3.30pm	Mini short course: part 1 – Updates in pulmonary vascular medicine: guidelines based on evidence	Theatre A (3rd & 4th floors)
2.00pm – 3.30pm	Workforce, training and research in respiratory critical care	Classroom 2.219/2.220 (2nd floor)
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 conference App	Foyer, The Drum & The Market (ground floor)
3.45pm – 5.15pm	Palliative care and respiratory disease	Theatre B (1st & 2nd floors)
3.45pm – 5.15pm	Mini short course: part 2 – How should I manage the sick PAH patient?	Theatre A (3rd & 4th floors)
3.45pm – 5.15pm	We know who you might have met last summer: TB contact tracing in the molecular era	Classroom 2.219/2.220 (2nd floor)

MEETING INFORMATION

THE VENUE

University Place, The University of Manchester, Oxford Road, Manchester, M13 9PL

University Place is conveniently located close to city centre travel, attractions, shops and restaurants, and is around a 15-20 minute walk from Manchester Piccadilly Train Station.

Further information and directions may be found here: **www.conference.manchester.ac.uk/discover/maps**

FACILITIES AT THE VENUE

There is a multi-faith prayer room in Classroom 2.217 (2nd floor) and a quiet room for nursing mothers in Classroom 4.213 (4th floor).

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 in Classroom 1.219 (1st floor).

FINAL PROGRAMME & CONFERENCE APP

The final programme will be available as a PDF only, available to download from the **BTS website** or on the conference App.

As well as the programme, the App will contain lots of useful information about the Meeting, along with the QR code for your conference badge.

We recommend that you download the BTS Events/Summer Meeting App to your phone/tablet before arriving at the venue.

CONFERENCE SESSIONS

The conference sessions will be held in Lecture Theatre B (1st & 2nd floors), Lecture Theatre A (3rd & 4th floors) and Classroom 2.219/2.220 (2nd floor).

After the event, all registered delegates will be sent a website link to access video recordings of the symposia and Guest Lecture, which will be available to view until 22 September 2023.

BTS SUMMER MEETING ABSTRACT PRIZES

The Summer Meeting Abstract Prizes have been short-listed in two categories – "Improving quality and excellence in patient care" and "Improvements in respiratory education and training". The short-listed abstracts will be on view in digital format in the exhibition area on the ground floor. The work will also be presented in two spoken sessions in Classroom 2.219/2.220 (please see pages 14 and 19). 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 The Drum and The Market (ground floor). BTS is very grateful to all exhibitors for their support of the Summer Meeting.

PHYSIOLOGY QUIZ

The Physiology Quiz is available as digital cases on the conference App, with an interactive question-and-answer session in Theatre A (3rd & 4th floors) on Friday morning. BTS is very grateful to Jessica Swan and Mark Unstead, Respiratory Physiology Department, Royal Berkshire NHS Foundation Trust, Reading, for organising the quiz.

INTERNET ACCESS

Wi-Fi is available free of charge via the University's guest Wi-Fi network: UoM_Guest. Simply connect to the UoM_Guest network, open your web browser and follow the onscreen instructions. You may register with your Google, Facebook or Twitter accounts, or via a text message to your phone.

Q&A AND POLLING

In all conference sessions, delegates may ask questions either in the traditional way using the microphones available in the rooms, or via the Q&A section of the conference App.

Polling will be in use in some sessions and this will also be available via the conference App.

REFRESHMENTS

All refreshments will be served in The Drum and The Market (ground floor).

MEET THE BTS TEAM

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

CONTACT DETAILS IN MANCHESTER

BTS registration desks will be open onsite from Wednesday 21 to Friday 23 June (for Summer Meeting related queries only). Tel: **0161 306 4098.**

Or email: **bookings@brit-thoracic.org.uk**

CPD APPROVAL

The BTS Summer Meeting 2023 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: 143562. We will automatically register all eligible delegates for CPD when they 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 reflective accounts form is available on page 47 of this document:

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. Details of the CSP ePortfolio are available here:

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 22 June from 6.00pm, all participants are warmly invited to join us in the exhibition area for an informal reception with wine, beer, soft drinks and nibbles. Presentations will be made to the finalists participating in the Abstract Prizes and Clinical Grand Round. The reception will end at 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/btssummermeeting2023**

Email: **hello@miceconcierge.com**

Tel: **01438 908 770**

TWITTER

Increase your participation by Tweeting about the Summer Meeting using: **#BTSSummer2023**

DATES OF FUTURE BTS MEETINGS

Winter Meeting 2023
22 to 24 November, London

Summer Meeting 2024
20 and 21 June, Manchester

Winter Meeting 2024
27 to 29 November, London

BTS SHORT COURSE WEDNESDAY 21 JUNE

ACUTE NON-INVASIVE VENTILATION & HOME MECHANICAL VENTILATION 2023: PRACTICAL HANDS-ON SESSION

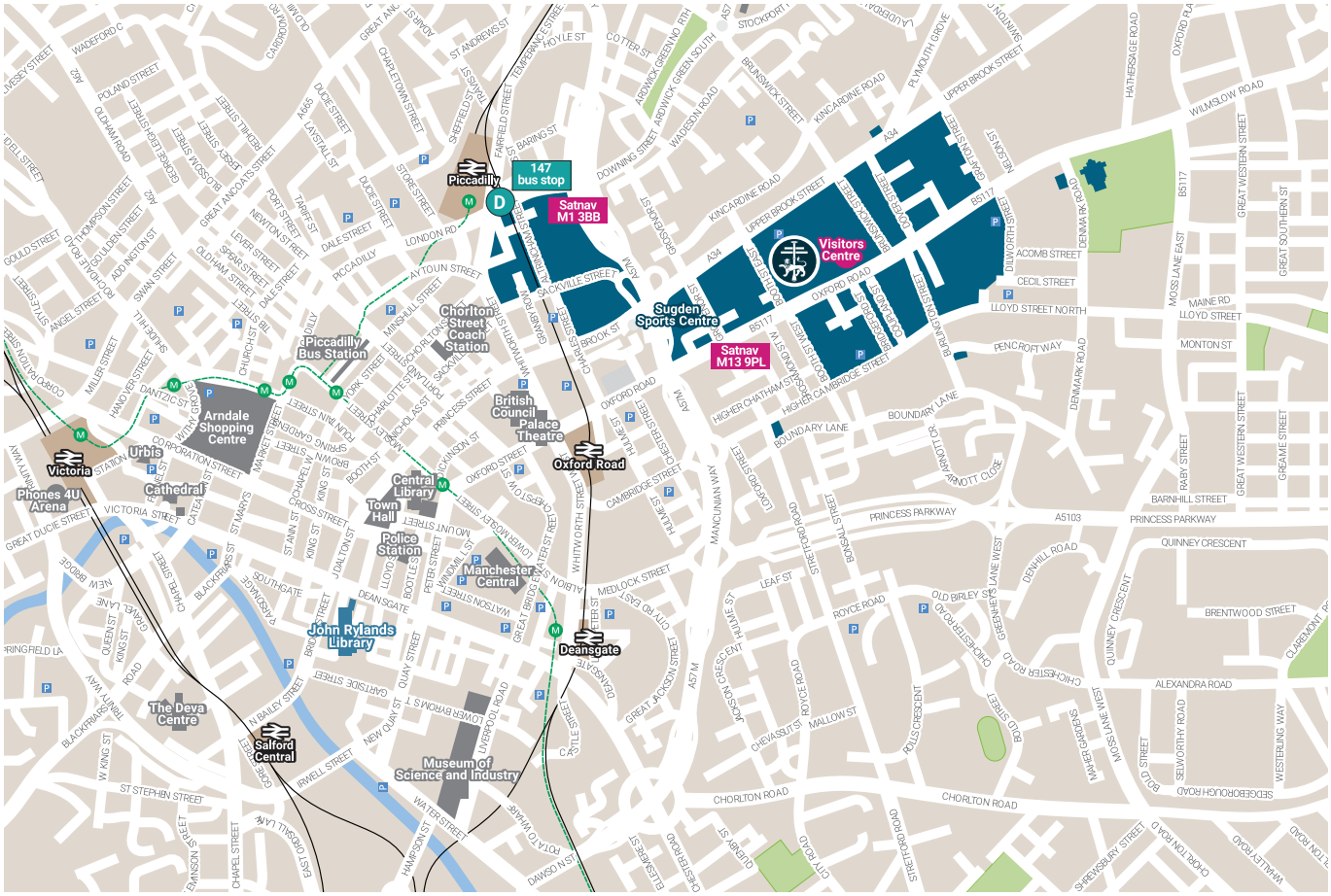
Venue: Manchester Conference Centre & The Pendulum Hotel, Sackville Street, M1 3BB

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

For last-minute registration and information, please see the Short Courses page of the website:

Courses in respiratory medicine

TRAVELLING TO MANCHESTER BY TRAIN



It's easy to travel by train to The University of Manchester due to our proximity to three large rail stations.

We are located close to both Piccadilly main line station (about two and a half hours from London) and Oxford Road train station, with Victoria train station a little further away.

For details of timetables, tickets and other rail information, please ring National Rail Enquiries on 08457 48 49 50 (+44 (0) 20 7278 5240 from overseas) or visit: **www.nationalrail.co.uk**

DIRECTIONS

Manchester's main stations are highlighted on our city map.

PICCADILLY STATION TO OXFORD ROAD

The Oxford Road link bus (number 147) runs from Piccadilly Rail Station across the campus stopping at 14 locations and finishing at Grafton Street.

This service runs on weekdays between 7.15am and 6.45pm, at ten-minute intervals, and can be caught from the Fairfield Street entrance to Piccadilly Station.

A taxi from Piccadilly Station to the Oxford Road area of the campus will cost you about £5.

VICTORIA STATION TO OXFORD ROAD

Victoria station is about 1.8 miles from the Oxford Road area of the campus. The easiest way is to take a Metrolink tram to Piccadilly station and follow the route described previously.

OXFORD ROAD STATION TO OXFORD ROAD CAMPUS

To get to the Oxford Road area of the campus, go down the station approach to Oxford Road and turn right. The campus is a 10- to 15-minute walk. Alternatively, buses stop outside the Palace Hotel.

FINDING YOUR WAY AROUND THE VENUE

Entrance
Via the revolving door on Oxford Road

Cloakroom
Classroom 1.219 (1st floor)

BTS registration
Foyer (ground floor)

Exhibition and catering
The Drum and The Market (ground floor)

Conference rooms
Theatre B (1st & 2nd floors)
Theatre A (3rd & 4th floors)
Classroom 2.219/2.220 (2nd floor)

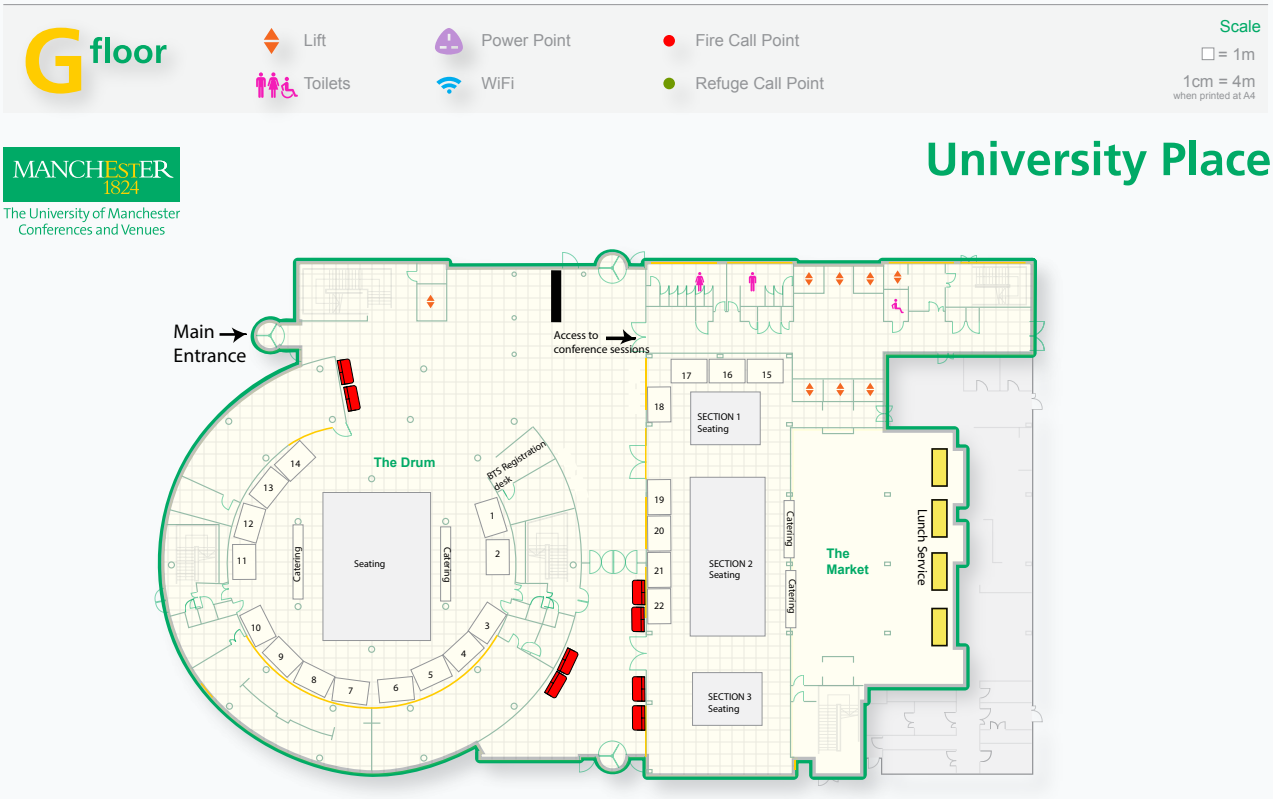
Abstract Prizes digital posters
Exhibition area (ground floor)

Speakers' preview room
Classroom 1.218 (1st floor)

Private meeting room
Classroom 2.218 (2nd floor)

Prayer room
Classroom 2.217 (2nd floor)

Nursing mothers' room
Classroom 4.213 (4th floor)



FINDING YOUR WAY AROUND THE VENUE

1st floor

Lift
Toilets
WiFi
Fire Call Point
Refuge Call Point

Scale
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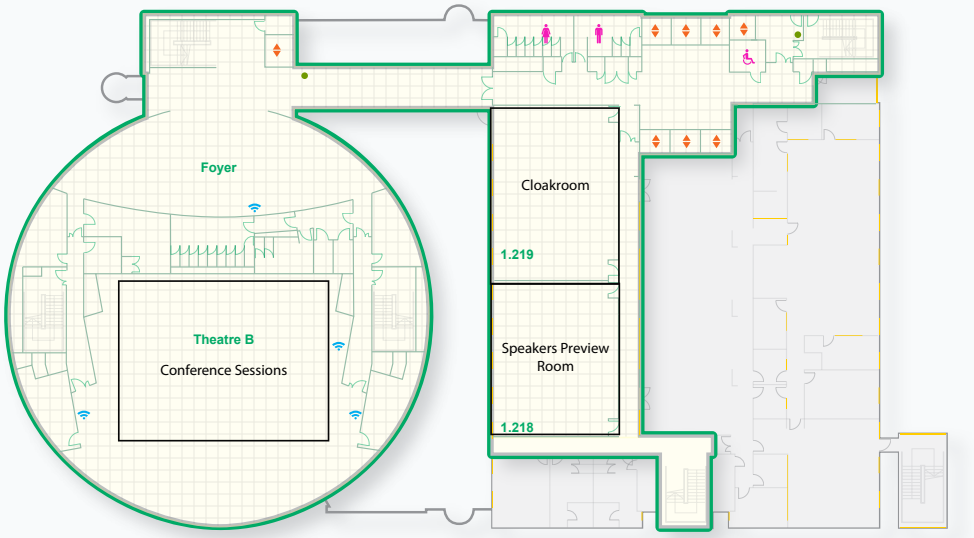
1cm = 4m
when printed at A4

MANCHESTER 1824
The University of Manchester Conferences and Venues

University Place



2nd floor

Lift
Toilets
WiFi
Fire Call Point
Refuge Call Point

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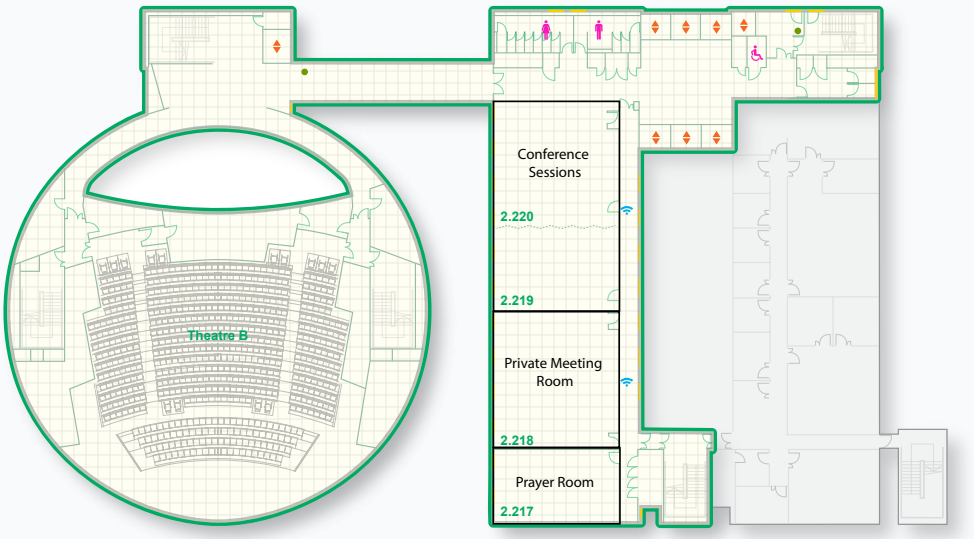
when printed at A4

MANCHESTER 1824
The University of Manchester Conferences and Venues

University Place



FINDING YOUR WAY AROUND THE VENUE

3rd floor

Lift
Toilets
WiFi
Fire Call Point
Refuge Call Point

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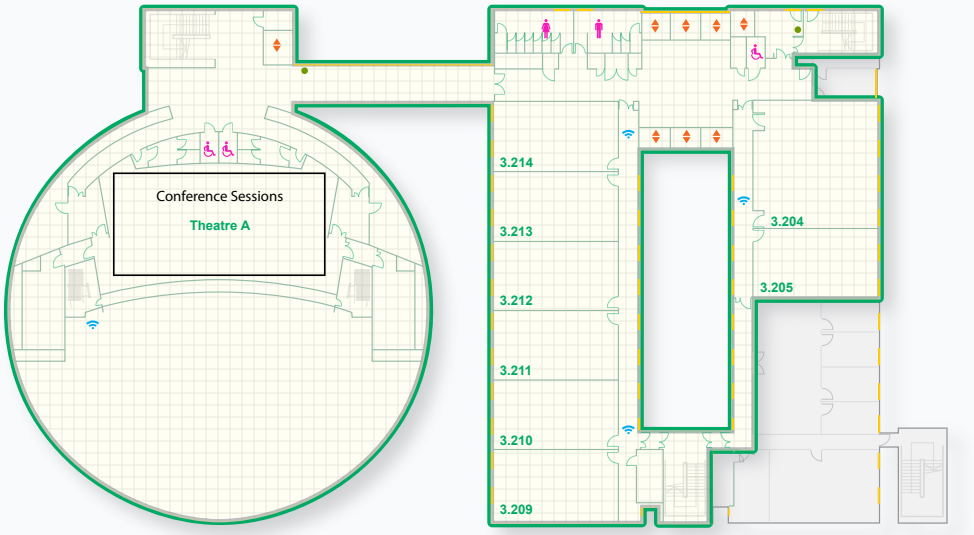
MANCHESTER 1824
The University of Manchester Conferences and Venues

University Place



4th floor

Lift
Toilets
WiFi
Fire Call Point
Refuge Call Point

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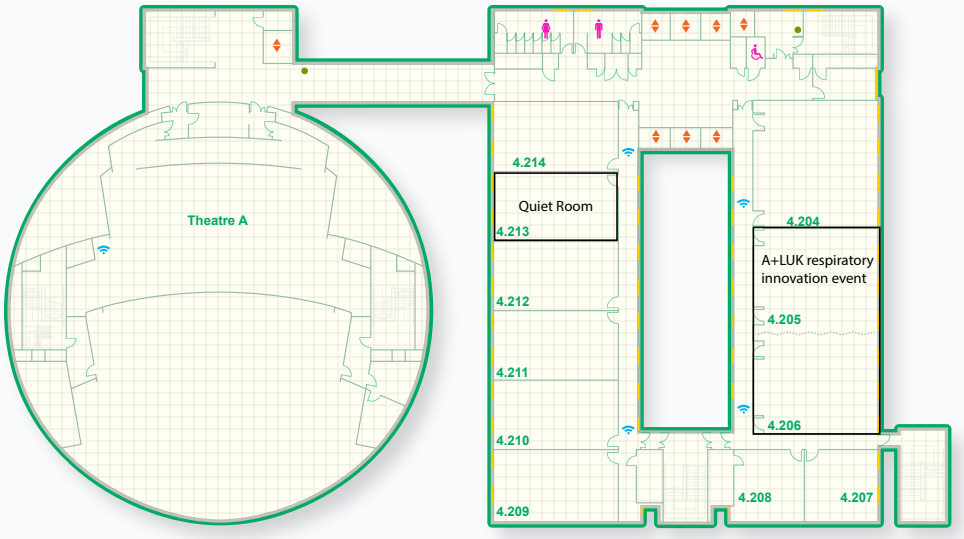
MANCHESTER 1824
The University of Manchester Conferences and Venues

University Place



PROGRAMME
THURSDAY 22 JUNE 2023

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

Foyer, The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

9.30am – 11.00am **SIMULTANEOUS SYMPOSIA**

Theatre B (1st & 2nd floors)

YEAR IN REVIEW – TRANSITIONS: "BALANCING THE PRESSURES"

Chaired by: Mrs Alison Armstrong (Newcastle upon Tyne) and Dr Alanna Hare (London)

9.30am – 10.00am	Growing pains: transition to adulthood Ms Jemma Price (Manchester)
10.00am – 10.30am	Sharing the pain: transitioning services Dr Martin Allen (Stoke on Trent)
10.30am – 11.00am	Easing the pain: developing a workforce for the future - Dr Charlotte Addy (Cardiff)

Learning outcomes

- Understand the challenges of paediatric to adult transition and the importance of shared decision making and multi-professional care.
- Develop an awareness of new models of care, including the role of community diagnostic centres.
- Understand how BTS and others are working to develop a respiratory workforce fit for the future.

Curriculum mapping

Generic Capabilities in Practice 1 – Able to function successfully within NHS organisational and management systems.

Generic Capabilities in Practice 2 – Communicates effectively and is able to share decision making with children and young people.

Speciality Capabilities in Practice 2 – Managing integrated respiratory medicine across the primary and secondary care interface including management of long-term disease.

Theatre A (3rd & 4th floors)

TOBACCO DEPENDENCY: MOVING FROM DARKNESS TO LIGHT

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

9.30am – 10.00am	Update on BTS Clinical Statement "The Medical Management of Tobacco Dependency" Professor Sanjay Agrawal (Leicester)
10.00am – 10.30am	"No thank you, I can do it on my own": motivating patients to accept referral to tobacco dependency services Ms Melanie Perry (British Thoracic Society)
10.30am – 11.00am	Cases from the tobacco dependency clinic: from the routine to the complex Mr Arran Woodhouse (London)

Learning outcomes

- Identify the key take home messages from BTS Clinical Statement on the Medical Management of Tobacco Dependency and how it applies to their practice.
- Develop practical skills to support reluctant smokers in accepting specialist support for tobacco dependency.
- Identify the range of skills and interventions of tobacco dependency advisors in supporting tobacco dependent patients.

Curriculum mapping

Specialty Capabilities in Practice 2 – Managing integrated respiratory medicine across primary and secondary care, demonstrating skills in smoking cessation techniques.

Classroom 2.219/2.220 (2nd floor)

CYSTIC FIBROSIS: EMERGING CHALLENGES IN CARE

Chairs: Mr Alan Anderson (Newcastle upon Tyne) and Dr Anirban Maitra (Manchester)

9.30am – 10.00am	Re-designing CF clinics: fit for a new era Ms Stephanie Graham (Newcastle upon Tyne)
10.00am – 10.30am	CF and pregnancy and decision aids for pregnancy Dr Imogen Felton (London) and Dr Rhiannon Phillips (Cardiff)
10.30am – 11.00am	CF Health Hub: learning health system and habit lab Dr Martin Wildman (Sheffield)

Learning outcomes

- To understand the challenges/potential solutions of providing appropriate outpatient holistic, multidisciplinary care in a new era of cystic fibrosis.
- To learn about the decisions around starting a family in CF and the management of pregnancy in CF.
- To understand role of habit formation in adherence and the value of a learning health system – with lived experience insight.

Curriculum mapping

Generic Capabilities in Practice 1 – Able to function successfully within NHS organisational and management systems.

Generic Capabilities in Practice 2 – Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement.

Speciality Capabilities in Practice 2 – Managing integrated respiratory medicine across the primary and secondary care interface including management of long-term disease.

Speciality Capabilities in Practice 6 – Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

11.00am – 11.30am **REFRESHMENTS**

The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

11.30am – 1.00pm **SIMULTANEOUS SYMPOSIA**

Theatre B (1st & 2nd floors)

PULMONARY INFECTIONS IN IMMUNOCOMPROMISED INDIVIDUALS AND IN RETURNING TRAVELLERS: WHAT YOU NEED TO KNOW IN 2023

Chaired by: Jenny Abrahamsen (London) and Dr Catherine Hyams (Bristol)

11.30am – 12.00pm	Pulmonary infections in the critically ill: from VAP to IAPA to CAPA Dr Amit Adlakha (London)
12.00pm – 12.30pm	There and back again: pulmonary infections in the returning traveller Dr Alisdair MacConnachie (Glasgow)
12.30pm – 1.00pm	Pulmonary infections in HIV-infected individuals: past, present and future Professor Marc Lipman (London)

Learning outcomes

- Understand the specific risks and management for emerging pulmonary infections in critically ill patients, including secondary mould infections in those infected with influenza and COVID-19.
- Understand how travel history influences the possible range of acquired pathogens which may result in acute and chronic pulmonary infections.
- Recognise the wide range of pulmonary infections that may affect those infected with HIV, at different levels of immunosuppression, and the effect of travel on this.

Curriculum mapping

E6: Pulmonary infections.
E7: Tuberculosis and opportunist mycobacterial disease.
E8: Pulmonary disease in the immunocompromised host.
E17: Pulmonary disease in the HIV patient.
E25: ICU and HDU.
L1: Health promotion and public health.

Theatre A (3rd & 4th floors)

CLINICAL GRAND ROUND

Judged by: Mrs Alison Armstrong (Newcastle upon Tyne), Dr Alanna Hare (London), Mrs Ema Swingwood (Bristol) and Dr Paul Walker (Liverpool)

11.30am – 12.00pm	Loculated pleural effusion: Pleural infection, or not? WH Ong. Northumbria Healthcare NHS Foundation Trust, Northumberland, UK
12.00pm – 12.30pm	"Out-of-the-lung" thinking to diagnose a challenging case of recurrent respiratory infections B Iqbal, D Addala, A El-Sheikh, S Guo, A Sundaralingam, R Hallifax, NM Rahman. Oxford Pleural Unit, Oxford University Hospital NHS Trust, Oxford, UK
12.30pm – 1.00pm	Post ventilatory tracheal stenosis: another cause for exertional dyspnoea AL Solanga Arachchige, D Madegedara. National Hospital Kandy, Kandy, Sri Lanka

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.

Classroom 2.219/2.220 (2nd floor)

PATIENT SELF-MANAGEMENT: DOES IT WORK AND COULD IT BE BETTER?

Chaired by: Ms Padma Parthasarathy (Leicester) and Ms Jane Rodger (Mid-Yorkshire Hospitals)

11.30am – 12.00pm	Features of self-management in COPD. Results of a systematic review and meta-analysis Dr James Newham (Northumbria)
12.00pm – 12.30pm	A digital self-management programme for respiratory patients: can it help? Dr Karen Heslop-Marshall (Newcastle upon Tyne)
12.30pm – 1.00pm	Self-management: what it means for patients Mr Steve Jones (EU-IPFF & Action for Pulmonary Fibrosis)

Learning outcomes

- To highlight the results of a systematic review of self-management interventions in COPD.
- To describe the development and implementation of an innovative digital platform to help patients with respiratory disease manage their symptoms.
- To understand the importance of self-management from a patient's perspective.

Curriculum mapping

Generic Capabilities in Practice (CiPs)

- Communicates effectively and is able to share decision making, while maintaining. appropriate situational awareness, professional behaviour and professional judgement.
- Is focussed on patient safety and delivers effective quality improvement in patient care.

Clinical CiPs

- Managing the acute care of patients within a medical specialty service.
- Managing patients in an outpatient clinic, ambulatory or community setting, including management of long-term conditions.

Respiratory medicine speciality CiPs

- Managing integrated respiratory medicine across the primary and secondary care interface including management of long-term disease.
- Managing the service and patients with respiratory failure in multiple settings including hospital and in the community.
- Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

1.00pm – 2.00pm **LUNCH**

The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

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

Classroom 2.219/2.220 (2nd floor)

CATEGORY – IMPROVING QUALITY AND EXCELLENCE IN PATIENT CARE

Submissions reviewed in advance and shortlisted abstracts judged on the day by: Ms Jennifer Butler (Northumbria), Dr Frances Grudzinska (Birmingham), Dr Alanna Hare (London) and Dr Mark Juniper (Swindon)

The six shortlisted abstracts will be presented during this session, with the associated digital posters on display in the exhibition hall and on the conference App.

1) Clinical nurse specialist (CNS)-led optimisation of the asthma biologic service in a severe asthma centre

   C Whitfield, S Kerley, C Eames, E Rayala-Montaniel, J McCreery, P Cook, HM Haitchi, RJ Kurukulaaratchy, P Dennison, H Rupani. University Hospital Southampton NHS Foundation Trust, Southampton, UK

2) The introduction of a clinical nurse specialist (CNS) steroid weaning clinic for patients with severe asthma on maintenance oral corticosteroids

   E Graham, C Eames, W Soe, L Fox, O Corn, C Whitfield, S Kerley, E Rayala-Montaniel, P Cook, R Kurukulaaratchy, HM Haitchi, P Dennison, H Rupani. University Hospital Southampton, Southampton, UK

3) Developing a regional hub-and-spoke model for volumetric assessment of indeterminate pulmonary nodules supports efficient and effective management of pulmonary nodule pathways

   [1]P Ratnakumar, [1]K Sabarwal, [2]C Stephenson, [2]A Rhodes, [3]J Derbyshire, [3]K Morris, [3]J Burchill, [2]O Orhan, [4]A Devaraj, [5]R Lee, [1]E Mayer, [4]JK Quint, [1]S Sheard, [1]S Bloch. [1]Imperial College Healthcare NHS Trust, London, UK; [2]Kingston Hospitals NHS Foundation Trust, Kingston, UK; [3]Royal Marsden Partners; West London Cancer Alliance, London, UK; [4]Royal Brompton & Harefield Hospitals, London, UK; [5]The Royal Marsden Hospital NHS Foundation Trust, London, UK

4) Improving oxygen prescribing compliance – a Trust wide approach

   D Peat, K Prior. Lancashire Teaching Hospitals NHS Trust, Preston, Lancashire, UK

5) Respiratory-run lymph node biopsy service

   R Nixon, M Khan, H Emms. Royal Devon University Healthcare, Exeter, UK

6) "This hospital is near my house": successfully establishing a local paediatric long-term ventilation service to improve families' quality of care

   PFM Robinson, A Collins, N Hirst, H Sivachandra, A Moran, J Thomas. Queen Elizabeth Hospital, Lewisham and Greenwich NHS Trust, London, UK

2.30pm – 4.00pm **SIMULTANEOUS SYMPOSIA**

Theatre B (1st & 2nd floors)

MY PATIENT HAS ASTHMA: WHAT ARE THE RISKS?

Chaired by: Dr Ireti Adejumo (Nottingham) and Ms Natalie Harper (Dorchester)

2.30pm – 3.00pm	Biologics and biomarkers: what to choose and when to refer Dr Hitasha Rupani (Southampton)
3.00pm – 3.30pm	Ethnicity and socio-economic differences Dr Llinos Jones (Dewsbury)
3.30pm – 4.00pm	Inhaled therapies: so much choice! How can we support a net zero NHS? Mrs Gráinne d'Ancona (London)

Learning outcomes

- Understand the relevance of commonly used asthma biomarkers and use them to manage patients with asthma and severe asthma.
- Increase awareness of the impact of ethnicity and socioeconomic differences on asthma risk and also discuss strategies to support our patients and clinical teams.
- Understand the carbon footprint of treatments used in asthma and how to approach trying to reduce the environmental risk of treatments whilst supporting our patients.

Curriculum mapping

Generic capabilities

Category 1.1: Able to function successfully within NHS organisational and management systems.

Category 2.3: Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement.

Clinical capabilities

4) Managing patients in an outpatient clinic, ambulatory or community setting (including management of long-term conditions).

Speciality capabilities

- Demonstrates expertise in the management of airway disease and provides guidance to non-respiratory specialists.
- Works in partnership with the respiratory multi-disciplinary team (e.g. physiotherapists, specialist nurses, palliative care team, pharmacists, physiologists and psychologists).
- Demonstrates ability to consider the diagnosis of pulmonary hypertension, occupational lung disease, allergy, severe asthma, cystic fibrosis, interstitial lung diseases and other orphan lung diseases.
- Presentation of cases at specialist MDT.
- Understands impact of air pollution in lung disease and contributes to measures to improve air quality.

Theatre A (3rd & 4th floors)

MINI SHORT COURSE: PART 1

SUPPORTIVE THERAPIES IN INTERSTITIAL LUNG DISEASE: IT'S NOT JUST ABOUT ANTIFIBROTICS

Chaired by: Dr Rachel Hoyles (Oxford) and Dr Nazia Chaudhuri (Ulster and Manchester)

2.30pm – 3.00pm	Breathlessness management in ILD Dr Sabrina Bajwah (London)
3.00pm – 3.30pm	Cough therapy in ILD Dr James Wingfield Digby (Manchester)
3.30pm – 4.00pm	Managing wellbeing in ILD Dr Anne-Marie Russell (Exeter)

Learning outcomes

- Discuss the role of pulmonary rehabilitations, oxygen and drug therapies for breathlessness management.
- Discuss pharmacological and non-pharmacological management of cough in ILD.
- Understand how we could improve the well-being of patients with ILD.

Curriculum mapping

3.4) Specialty capabilities in practice.

5) Tertiary subspecialties interface: managing patients across the secondary and tertiary interface; in particular patients with lung and heart transplants and pulmonary hypertension.

Descriptors:

- Demonstrates ability to consider the diagnosis of interstitial lung disease and other orphan lung disease.
- Knowledge of diagnostic criteria for rare lung diseases.
- Identification of patients to be considered for lung transplantation and appropriate investigations and treatments before and after transplantation.
- Presentation of cases at specialist MDT.
- Demonstrates good communication skills when dealing with tertiary centres.
- Demonstrates knowledge of these disorders and ability to manage patients locally in a joint care model when appropriate.

6) Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

Classroom 2.219/2.220 (2nd floor)

JOINT BTS/BSTI RADIOLOGY SYMPOSIUM

Chaired by: Dr Annette Johnstone (Leeds) and Dr Seung-Jin Choi (Leeds)

2.30pm – 2.50pm	Beyond the PA CXR Dr Seung-Jin Choi (Leeds)
2.50pm – 3.10pm	Lung cancer staging for the beginner Dr Annette Johnstone (Leeds)
3.10pm – 3.30pm	PET scanning for the respiratory physician: pitfalls and non-cancer Dr Annette Johnstone (Leeds)
3.30pm – 4.00pm	BSTI thoracic imaging quiz Dr Seung-Jin Choi, Dr Annette Johnstone and Dr Boshra Edhayr

Learning outcomes

- Understand the use of lateral CXR and relevant anatomy. Understand the use of dual energy CXR and CXR tomography.
- Understand the importance of staging and how radiologists systematically review a CT to stage lung cancer.
- Understand the limitations of PET-CT. Understand the PET-CT report. Be aware of conditions that can cause false positive and false negative reporting.
- Thoracic imaging interactive quiz with teaching covering thoracic anatomy, normal anatomical variants and a spectrum of pathology seen in respiratory medicine using some case-based examples.

Curriculum mapping

Speciality CiP 1

Managing all aspects of thoracic malignancy and terminal disease including diagnostic pathways and working with the MDT.

Clinical CiPs

Internal medicine 2: Managing the acute care of patients within a medical specialty service.

Internal medicine 3: Providing continuity of care to medical inpatients.

4.00pm – 4.30pm **REFRESHMENTS**

The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

4.30pm – 6.00pm **SIMULTANEOUS SYMPOSIA**

Theatre B (1st & 2nd floors)

JOINT BTS/ARTP SYMPOSIUM
CPEX AND AIR TRAVEL

Chaired by: Dr Ian Cliff (Stoke on Trent) and Dr Heather Green (Manchester)

4.30pm – 5.00pm	CPEX: why, when and how? Dr Gulam Haji (London) and Mr Maximillian Thomas (Birmingham)
5.00pm – 5.30pm	Supporting the complex respiratory patient with air travel (including hypoxic challenge testing) Dr Ian Cliff (Stoke on Trent), Dr Heather Green (Manchester) and Ms Laura Beattie (Manchester)
5.30pm – 6.00pm	Q&A and panel discussion Mrs Alison Armstrong, Ms Laura Beattie, Dr Ian Cliff, Dr Gulam Haji, Dr Heather Green and Mr Max Thomas

Learning outcomes

- To understand the role of CPEX in the investigation of breathlessness and how the test is undertaken.
- To identify when and how to undertake hypoxic challenge testing.
- To understand the complexities of air travel for patients with respiratory conditions.

Curriculum mapping

Clinical CiP 4

Managing patients in an outpatient clinic, ambulatory or community setting (including management of long-term conditions).

Procedures: Lung function testing and cardiopulmonary exercise testing

Presentations: Dyspnoea

Theatre A (3rd & 4th floors)

MINI SHORT COURSE: PART 2
CONTROVERSIES IN INTERSTITIAL LUNG DISEASE

Chaired by: Dr Nazia Chaudhuri (Ulster and Manchester) and Ms Pat Gorman (Antrim)

4.30pm – 5.00pm	Immunosuppressants versus antifibrotics for fibrotic ILDs Dr Peter George (London)
5.00pm – 5.30pm	Should we treat Group 3 PH? Dr Sheila Ramjug (Manchester)
5.30pm – 6.00pm	Systemic sclerosis ILD: treat on diagnosis or when progresses? Dr Rachel Hoyles (Oxford)

Learning outcomes

- To understand the rationale and evidence base of immunosuppressant and anti-fibrotic therapies for ILD.
- Discuss the scientific rationale and clinical trial evidence of targeted therapy for PH-ILD.
- Understand the rationale of starting therapies for ILD at diagnosis for systemic sclerosis related ILD.

Curriculum mapping

3.4) Specialty capabilities in practice.

5) Tertiary subspecialties interface: managing patients across the secondary and tertiary interface; in particular patients with lung and heart transplants and pulmonary hypertension.

Descriptors:

- Demonstrates ability to consider the diagnosis of interstitial lung disease and other orphan lung disease.
- Knowledge of diagnostic criteria for rare lung diseases.
- Identification of patients to be considered for lung transplantation and appropriate investigations and treatments before and after transplantation.
- Presentation of cases at specialist MDT.
- Demonstrates good communication skills when dealing with tertiary centres.
- Demonstrates knowledge of these disorders and ability to manage patients locally in a joint care model when appropriate.

6) Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

Classroom 2.219/2.220 (2nd floor)

THE CLINICAL APPROACH TO SLEEP RELATED BREATHING DISORDERS: RECONCILING GUIDELINES WITH REAL LIFE AND WHAT TO DO WHEN THEY DON'T COVER WHAT IS IN FRONT OF YOU

Chaired by: Ms Sara Parsons (London) and Dr Tim Quinnell (Cambridge)

4.30pm – 5.00pm	OSA: investigation and management – reconciling real-life with the NICE guidelines Dr Tim Quinnell (Cambridge)
5.00pm – 5.30pm	Non-CPAP therapies for OSA Dr Swapna Mandal (London)
5.30pm – 6.00pm	Non-obstructive sleep related breathing disorders: pitfalls and challenges Dr Michael Davies (Cambridge)

Learning outcomes

- Awareness of NICE guidelines for OSA investigation and management; consider the practicalities and challenges of applying these in NHS front line services.
- Awareness of the range of alternatives to CPAP therapy in OSA, in particular the role of those options with more established evidence base.
- Awareness of non-OSA SRBDs including central apnoea and hypoventilation. Understand the diagnostic and management approaches.

Curriculum mapping

Generic Capabilities in Practice

- Able to function successfully within NHS organisational and management systems.
- Able to deal with ethical and legal issues related to clinical practice.

Speciality Capabilities in Practice

- Managing the service and patients with respiratory failure in multiple settings including hospital and in the community.
- Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

Clinical CiPs

- Managing patients in an outpatient clinic, ambulatory or community setting, including management of long-term conditions.

3.5) Presentations and conditions – Sleep related breathing disorders.

4.1) Training programme – 11. Continuous Positive Airway Pressure (CPAP): at ST7 trainees will be independent in the use of CPAP to manage obstructive sleep apnoea.

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

The Drum (ground floor)

All delegates are warmly invited to attend this social occasion, where the awards for the BTS Abstract Prizes and Clinical Grand Round will be presented.

PROGRAMME
FRIDAY 23 JUNE 2023

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

Foyer, The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

8.30am – 10.00am **SIMULTANEOUS SYMPOSIA**

Theatre B (1st & 2nd floors)

SCREENING: BEYOND THE EARLY DETECTION OF LUNG CANCER

Chaired by: Dr Fraser Millar (Edinburgh) and Dr Rajini Sudhir (Leicester)

8.30am – 9.00am	What a coincidence: managing incidental findings in Targeted Lung Health Check programmes Dr Emily Bartlett (London)
9.00am – 9.30am	Nodules beyond BTS: life goes on Professor Matthew Callister (Leeds)
9.30am – 10.00am	Current status of lung cancer screening in the UK Dr Emma O'Dowd (Nottingham)

Learning outcomes

- To understand the prevalence of incidental findings in lung cancer screening and summarise expert consensus/ guidelines for investigation, management and reporting.
- To review current nodule guidelines and look at areas where evidence has emerged since the publication of the BTS Nodule Guideline in 2015.
- To review the current status of lung cancer screening in the UK since the positive recommendation by the UK National Screening Committee in 2022.

Curriculum mapping

Generic CiP 1 – Able to successfully function within NHS organisational and management systems.

Generic CiP 2 – Able to deal with ethical and legal issues related to clinical practice.

Respiratory Specialty CiP 1 – Managing all aspects of thoracic malignancy and advanced or terminal respiratory disease including diagnostic pathways and working with the MDT.

Theatre A (3rd & 4th floors)

'I SPY WITH MY LITTLE EYE…': OCCUPATIONAL LUNG DISEASE FOR RESPIRATORY PHYSICIANS

Chaired by: Dr Johanna Feary (London) and Dr Chris Huntley (Birmingham)

8.30am – 9.00am	How to spy cases of occupational asthma in the airways clinic Dr Huda Badri (Manchester)
9.00am – 9.30am	How to spy cases of occupational lung disease in the ILD clinic Dr Chris Warburton (Liverpool)
9.30am – 10.00am	Doctor doctor, is my job making me ill and should I quit? Dr Gareth Walters (Birmingham)

Learning outcomes

- To be able to identify key clinical features that differentiate between occupational asthma and asthma unrelated to work.
- To be aware of key questions to ask about occupational and environmental exposures to help identify cases of occupational interstitial lung disease in the general ILD clinic.
- To understand why work is important, how a person's job may affect their respiratory health and how best to advise patients on work-related issues.

Curriculum mapping

3.2) Generic capabilities in practice (CiPs)

- Able to deal with ethical and legal issues related to clinical practice.
- Communicates effectively and is able to share decision making, while maintaining appropriate situational awareness, professional behaviour and professional judgement.
- Is focussed on patient safety and delivers effective quality improvement in patient care.

3.3) Clinical capabilities in practice

- Managing patients in an outpatient clinic, ambulatory or community setting (including management of long-term conditions).

3.4) Specialty capabilities in practice

- Tertiary subspecialties interface: managing patients across the secondary and tertiary interface; in particular patients with lung and heart transplants and pulmonary hypertension. Demonstrates ability to consider the diagnosis of occupational lung disease and knowledge of diagnostic criteria for rare lung diseases.

3.5) Presentations and conditions

Presentations: symptoms relating to occupation.

Conditions/issues: occupational and environmental lung disease.

Classroom 2.219/2.220 (2nd floor)

INEQUALITIES IN PULMONARY REHABILITATION

Chaired by: Professor Rachel Jordan (Birmingham) and Dr Nicola Roberts (Edinburgh)

8.30am – 9.00am	Inequalities in pulmonary rehabilitation Ms Lucy Gardiner (Leicester)
9.00am – 9.30am	Digital habits of pulmonary rehabilitation service users: challenges and opportunities Dr Claire Nolan (London)
9.30am – 10.00am	Tackling inequalities in pulmonary rehabilitation in low- and middle-income countries Dr Mark Orme (Leicester)

Learning outcomes

- To develop an understanding of inequalities associated with pulmonary rehabilitation and limitations of existing data.
- To develop an awareness of approaches used to reduce inequalities in pulmonary rehabilitation in low- and middle-income countries.
- To consider the future direction of approaches to reduce inequalities in pulmonary rehabilitation in the UK.

Curriculum mapping

B.1.4: COPD.

E.1.14: Pulmonary rehabilitation.

F.3: Research.

1.7: Public health issues.

10.00am – 10.30am **REFRESHMENTS**

The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

10.30am – 12.00pm **SIMULTANEOUS SESSIONS**

10.30am – 12.00pm **SYMPOSIUM**

Theatre B (1st & 2nd floors)

BOOSTING THE BREATH IN COPD

Chaired by: Ms Catrin Emery (London) and Dr Nicholas Lane (Newcastle upon Tyne)

10.30am – 11.00am	Optimising NIV delivery across the MDT team and best patient care for COPD when it doesn't work Ms Clare Rossall (Leicester)
11.00am – 11.30am	Domiciliary NIV for COPD – implementing HOT-HMV into practice Dr Patrick Murphy (London) and Miss Emily Ballard (London)
11.30am – 12.00pm	Beyond NIV: LVR and other therapies Dr James Allinson (London)

Learning outcomes

- Implementing domiciliary non-invasive care following a COPD exacerbation, sharing best practice.
- Highlighting the important contributions of the MDT and ensuring that best patient care is delivered alongside/when NIV is not appropriate or is withdrawn.
- Understanding the role of other therapies for COPD beyond NIV and the importance of holistic care.

Curriculum mapping

Learning and Teaching, page 35: Point 10) Non-invasive ventilation (NIV): At ST7 trainees will be independent in the delivery and management of NIV in the acute setting. A typical trainee will have managed in excess of 50 episodes of acute NIV by this stage. Trainees will have experience of long-term domiciliary NIV but need not be independent practitioners.

10.30am – 11.00am **ABSTRACT PRIZES SPOKEN SESSION**

Classroom 2.219/2.220 (2nd floor)

CATEGORY – IMPROVEMENTS IN RESPIRATORY EDUCATION AND TRAINING

Submissions reviewed in advance and shortlisted abstracts judged on the day by: Mrs Alison Armstrong (Newcastle upon Tyne), Mr Liam Campbell (Liverpool), Dr Alanna Hare (London) and Dr Sheila Ramjug (Manchester)

The six shortlisted abstracts will be presented during this session, with the associated digital posters on display in the exhibition hall and on the conference App.

1) Improving indwelling pleural catheter (IPC) management – excellent results from the development of a short course for hospital and community staff

   E Harvey, I Johnson, R Mercer, L Bishop, R Asciak. Queen Alexandra Hospital, Portsmouth, UK

2) New BTS Framework for face-to-face Thoracic Ultrasound Training – Deliverable with a regional approach

   [1]M Bhatnagar, [2]K Conroy, [2]B Prudon, [1]L Tanner, [1]I Forrest, [1]AE Stanton. [1]Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, UK; [2]North Tees and Hartlepool Hospitals NHS Foundation Trust, North Tees, UK

3) The Introduction of a Novel Pulmonary Nodule Pathway Service and Pulmonary Nodule Navigators

   MZ Khan, A Talwar, R Benamore, M Tsakok, A Campbell, J Park, A Moore, J Yates, A Falolu, C Ridgeon, Y Duong, A O'Mahony, G Ghidoni, F Gleeson. Oxford University Hospitals NHS Foundation Trust, Oxford, UK

4) "The Inhaler Games" – a novel way to take your breath away

   AY Yip, AS Sundaram, JG Gates. Kingston Hospital, London, UK

5) The evolution of "NIVSIM": a simulation-based education (SBE) intervention to improve the quality of care delivered for patients receiving acute non-invasive ventilation (NIV)

   [1]SK Mansell, [2]AJ Thomas, [2]L Walters, [3]R Page, [1]R Parry, [1]P Naran, [1]N Devani. [1]Royal Free London NHS Foundation Trust, London, UK; [2]Barts Health NHS Foundation Trust, London, UK; [3]Homerton Healthcare NHS Foundation Trust, London, UK

6) Ward-based simulation training: an effective way to increase clinician confidence in managing respiratory emergencies

   JA Mitchell, L Allan. NHS Highland, Inverness, UK

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

Theatre A (3rd & 4th floors)

Chaired by: Natalie Wilson (Nottingham)

Cases presented by: Mark Unstead (Reading)

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

Join this session where colleagues will discuss the Physiology Quiz cases and answer questions from delegates and take part in live voting.

Delegates will be able to access the Physiology Quiz cases on the conference App throughout both days of the Meeting, with answers available during this live session and online after the event.

12.05pm – 1.00pm **GUEST LECTURE**

Theatre B (1st & 2nd floors)

HUMAN HEALTHCARE AND THE OCEAN

Guest lecturer: Dr Richard Hixson (County Durham and Darlington NHS Foundation Trust and co-Founder, Healthcare Ocean)

Introduced by: Dr Paul Walker (Chair, British Thoracic Society)

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

1.00pm – 2.00pm **LUNCH**

The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

1.10pm – 1.55pm **OPEN SESSION**

Classroom 4.205/4.206 (4th floor)

A+LUK RESPIRATORY INNOVATION AND COLLABORATION EVENT

Come and enjoy a networking lunch, hosted by Asthma + Lung UK (A+LUK) and Respiratory Futures, supporting the next generation of respiratory innovators and research collaborations. A+LUK want to see two million people with lung disease have access to high quality tools by 2027. Their innovators' network is a community open to everyone interested in respiratory innovation and how it can be used to drive improvements in respiratory outcomes.

This lunch session will allow delegates to meet some of the most exciting new innovators working in respiratory – developing diagnosis, monitoring, and digital self-management technologies that have the potential to transform outcomes for your patients. Special guest, Professor William Man, will open with his experience of pioneering new technologies. Hear about opportunities to gain funding, how to get your hands on new products and how you can get involved in testing the next generation of healthcare technologies. A light lunch will be provided.

2.00pm – 3.30pm **SIMULTANEOUS SYMPOSIA**

Theatre B (1st & 2nd floors)

DIFFICULT CHOICES IN COUGH: PRO-CON DEBATES

Chaired by: Ms Siobhan Ludlow (Manchester) and Dr Sean Parker (Northumbria)

2.00pm – 2.45pm	Debate 1 – Reflux is an important mechanism in chronic cough Pro: Professor Alyn Morice (Hull) Con: Professor Jacky Smith (Manchester)
2.45pm – 3.30pm	Debate 2 – You don't need drugs to treat chronic cough Pro: Ms Claire Slinger (Preston) Con: Dr Huda Badri (Manchester)

Learning outcomes

- Update on current treatment guidelines for cough.
- Overview of the evidence base behind the reflux theory of cough and current state of play regarding therapy in this area (referencing current guidelines).
- Overview of evidence and practice behind non-pharmacological treatment. Emphasise role of wider MDT.
- Overview of cough reflex (and dysfunction), chemically sensitive sites and evidence for current and future drug treatments for cough.

Curriculum mapping

Speciality Capabilities in Practice 2 – Managing integrated respiratory medicine across the primary and secondary care interface including management of long-term disease.

Speciality Capabilities in Practice 6 – Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

Theatre A (3rd & 4th floors)

MINI SHORT COURSE: PART 1

UPDATES IN PULMONARY VASCULAR MEDICINE: GUIDELINES BASED ON EVIDENCE!

Chaired by: Dr Neil Hamilton (Sheffield) and Dr Iain Armstrong (Sheffield)

2.00pm – 2.30pm	What is the new definition and classification of pulmonary hypertension now? Professor David Kiely (Sheffield)
2.30pm – 3.00pm	Update in chronic thromboembolic disease: how should I investigate my post PE patients? Dr Joanna Pepke Zaba (Cambridge)
3.00pm – 3.30pm	Evolving management: overview of treatment in PH Professor John Wort (London)

Learning outcomes

- To understand the new definitions and classification of pulmonary hypertension. As well as an overview of at-risk populations, clinical signs, symptoms, and diagnostic tests.
- To recognise how to approach patients with ongoing dyspnoea with a history of pulmonary embolism. To better interpret the appearances of acute PE on CTPA and the features of co-existent chronic thromboembolic pulmonary disease. As well as when to refer to specialist PH centres.
- To recognise the indications for the newer therapies available for patients with PAH and ILD associated severe PH based on new trial evidence, so that the audience will be familiar with these medications when such patients are admitted acutely to hospital.

Curriculum mapping

3.4) Specialty capabilities in practice.

5) Tertiary subspecialties interface: managing patients across the secondary and tertiary interface; in particular patients with lung and heart transplants and pulmonary hypertension.

Descriptors:

- Demonstrates ability to consider the diagnosis of pulmonary hypertension.
- Knowledge of diagnostic criteria for rare lung diseases.
- Identification of patients to be considered for lung transplantation and appropriate investigations and treatments before and after transplantation.
- Presentation of cases at specialist MDT.
- Demonstrates good communication skills when dealing with tertiary centres.
- Demonstrates knowledge of these disorders and ability to manage patients locally in a joint care model when appropriate.

6) Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

Classroom 2.219/2.220 (2nd floor)

WORKFORCE, TRAINING AND RESEARCH IN RESPIRATORY CRITICAL CARE

Chaired by: Dr Charlotte Addy (Cardiff) and Dr Katie Burke (Sunderland)

2.00pm – 2.30pm	Update on the new curriculum for triple accreditation and implications for consultant job plans Dr Mark Wilkinson (Morecambe)
2.30pm – 3.00pm	The development of the consultant physiotherapist role – my journey Verity Ford (Preston)
3.00pm – 3.30pm	Should research be integral to training in respiratory and critical care medicine? Dr Dhruv Parekh (Birmingham) and Ema Swingwood (Bristol)

Learning outcomes

- To understand the key features of the new curriculum for training in respiratory and critical care medicine.
- To understand the role of the consultant physiotherapist in the respiratory and critical care MDT.
- To discuss the role of research in training in respiratory medicine and critical care.

Curriculum mapping

Generic Capabilities in Practice 1 – Able to function successfully within NHS organisational and management systems.

Generic Capabilities in Practice 5 – Carrying out research and managing data appropriately.

3.30pm – 3.45pm **REFRESHMENTS**

The Drum & The Market (ground floor)

Visit the exhibition stands and view the Abstract Prize posters and Physiology Quiz on the conference App.

3.45pm – 5.15pm **SIMULTANEOUS SYMPOSIA**

Theatre B (1st & 2nd floors)

PALLIATIVE CARE AND RESPIRATORY DISEASE

Chaired by: Dr Alice Gray (West Midlands) and Dr Shaun Thein (Birmingham)

3.45pm – 4.15pm	Integrated palliative care: combining hospital and primary care Dr Davinder Dosanjh (Cambridge) and Dr Jon Tomas (Coventry)
4.15pm – 5.15pm	MDT panel case discussion Dr Davinder Dosanjh (Cambridge), Dr Karen Heslop-Marshall (Newcastle upon Tyne) and Dr Jon Tomas (Coventry)

Learning outcomes

- Managing patients with poor long-term prognosis; expectations at diagnosis and throughout treatment.
- How palliative care can integrate with secondary care and primary care – prevention of inappropriate hospital admissions, patient orientated symptom control/ treatment.
- Managing patients who are deteriorating but may also receive a lung transplant – balancing palliative care and active treatment.

Curriculum mapping

C6: Working within teams.

C8: Managing resources.

E10: Interstitial lung disease.

E20: Lung transplantation.

E26: Palliative care.

Theatre A (3rd & 4th floors)

MINI SHORT COURSE: PART 2
HOW SHOULD I MANAGE THE SICK PAH PATIENT?

Chaired by: Dr Sheila Ramjug (Manchester)

3.45pm – 4.00pm	What complications can patients with pulmonary hypertension get? Exploration of pathophysiology Dr Laura Price (London)
4.00pm – 4.15pm	Sort the RV out: management of RV failure in ICU Dr Ben Garfield (London)
4.15pm – 4.30pm	What to do when your patient is not improving: lung transplant and mechanical support Dr Jim Lordan (Newcastle upon Tyne)
4.30pm – 5.15pm	MDT panel case discussion Dr Ben Garfield (London), Dr Neil Hamilton (Sheffield), Dr Jim Lordan (Newcastle upon Tyne), Dr Laura Price (London), Anna Tarrant (Birmingham) and Professor David Kiely (Sheffield)

Learning outcomes

- To appreciate the common reasons which cause PH patients to present acutely, as well as proposed management strategies.
- To understand the causative factors and principals of managing RV failure.
- To be aware of the advanced management techniques utilised in sick PH patients.

Curriculum mapping

3.4) Specialty capabilities in practice.

5) Tertiary subspecialties interface: managing patients across the secondary and tertiary interface; in particular patients with lung and heart transplants and pulmonary hypertension.

Descriptors

- Knowledge of diagnostic criteria for rare lung diseases.
- Identification of patients to be considered for lung transplantation and appropriate investigations and treatments before and after transplantation.
- Presentation of cases at specialist MDT.
- Demonstrates good communication skills when dealing with tertiary centres.
- Demonstrates knowledge of these disorders and ability to manage patients locally in a joint care model when appropriate.

6) Managing the use of drugs and therapeutic modalities specific to the practice of respiratory medicine.

Classroom 2.219/2.220 (2nd floor)

WE KNOW WHO YOU MIGHT HAVE MET LAST SUMMER: TUBERCULOSIS CONTACT TRACING IN THE MOLECULAR ERA

Chaired by: Dr Suzi Coles (UK HSA) and Dr Suman Paul (Liverpool)

3.45pm – 4.15pm	The spectrum of TB: how to diagnose TB disease Dr Anne Dunleavy (London)
4.15pm – 4.45pm	The ongoing development of whole genome sequencing: what's coming down the pipeline? Dr Louise Seagar (Edinburgh)
4.45pm – 5.15pm	What happens in practice? Examples of contact tracing incidents: the role of the TB nursing team, Health Protection team and Local Authority Ms Hanna Kaur (Birmingham)

Learning outcomes

- Better understanding of current tuberculosis epidemiology in the UK.
- Better understanding of the role and capabilities of the public health TB Microbiology and Whole Genome Sequencing services.
- Understanding the practical steps taken in traditional contact tracing and how to use the new information provided by Whole Genome Sequencing to enhance this.

Curriculum mapping

Specialty Capabilities in Practice (CiPs)

2) Managing integrated respiratory medicine across the primary and secondary care interface including management of long-term disease.

3) Managing complex and unusual respiratory infection including contact tracing and public health (in particular atypical pneumonia).

Generic CiPs

1) Able to function successfully within NHS organisational and management systems.

2) Able to deal with ethical and legal issues related to clinical practice.

Tuberculosis / microbiology / epidemiology / public health / ethics / legal issues

SPEAKERS' DETAILS AND PRESENTATION SUMMARIES

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

Jennifer Abrahamsen qualified as a registered general nurse (RGN) in 2005 at King's College University, London. After qualifying she worked for a number of years at King's College Hospital Liver Unit. In 2008 she joined the infection and immunity team at the Royal Free Hospital, London.

Currently she is managing and leading the Infectious Diseases Unit, which includes infectious and rare diseases, HIV, immunology and rheumatology.

In 2014/15 she played a key role in the management and care of returning British healthcare workers with Ebola.

Jennifer was instrumental in looking after the some of the first COVID-19 patients. In 2022, she provided nursing leadership for the care of MPOX patients especially in developing infection control pathways.

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, she has keen interests in service development, education, training and workforce planning. She is the current Chair of the BTS Workforce and Service Development Committee, sits on the BTS Board, Respiratory SAC and is Training Programme Director for South Wales. Charlotte also chairs the Taskforce for Lung Health Workforce Group, focused on creating future multi-professional teams delivering a shared vision of respiratory care.

Easing the pain: developing a workforce for the future

Workforce is the most important determinant of successful respiratory care. This talk will review the challenges facing the current and future respiratory workforce. It will discuss how we can tackle these issues to create a sustainable highly skilled workforce to deliver holistic patient centred respiratory care. It will explore:

- How BTS and other national bodies are addressing the challenges facing the multi-professional respiratory workforce across all 4 UK nations.
- How individuals and teams working in respiratory can help address their own and wider workforce challenges.
- How a collaborative approach to workforce planning can help build the future respiratory workforce.
- How the respiratory workforce is changing, what the future workforce may look like and consider how we create a sustainable model to support this future workforce.

Curriculum mapping

Generic CiP 1:

- Demonstrates engagement in career planning
- Demonstrates capabilities in dealing with complexity and uncertainty
- Aware of the role of and processes for operational structures within the NHS
- Aware of the need to use resources wisely

Clinical CiP 6: Managing a multi-disciplinary team including effective discharge planning

All Respiratory speciality CiPs!

Dr Ireti Adejumo is an NIHR Academic Clinical Lecturer at the University of Nottingham. Her PhD was on the role of digital technology in asthma. Her current interests are in the relationship between social factors and asthma given their role in morbidity and mortality.

Dr Amit Adlakha is a Consultant Intensivist at the Royal Free Hospital in London and Lung Transplant Physician at University Hospitals Birmingham, having completed postgraduate training in Glasgow, Oxford and London. His PhD research was a genomic analysis of innate immune cell responses to Aspergillus infection in lung transplant recipients. He has an interest in infections in immunocompromised hosts and in lung donor management.

Pulmonary infections in the critically ill: from VAP to IAPA to CAPA

This lecture will cover the changing epidemiological trends in VAP, along with updates in diagnostics, prevention and treatment. It will outline the diagnostic and management strategies in invasive aspergillosis in the context of severe respiratory viral disease.

Professor Sanjay Agrawal is a Consultant in Respiratory and Intensive Care Medicine at the University Hospitals of Leicester NHS Trust, National Speciality Advisor for Tobacco Dependency to NHS England and Chairs the Royal College of Physicians Tobacco Advisory Group. More recently, Professor Agrawal was part of a BTS Clinical Statement group that produced the 'Medical management of tobacco dependency' clinical statement and a BTS Quality Improvement programme to improve the effectiveness of hospital tobacco dependency treatment services.

Update on BTS Clinical Statement on "The medical management of tobacco dependency"

The medical management of tobacco dependency is a fast-moving field with new drugs and approaches that have proven highly effective in treating the deadly condition of tobacco addiction. In this session Professor Agrawal will provide a summary of the new BTS Clinical Statement for the medical management of tobacco dependency including the initial discussion with patients, pharmacotherapies used to treat tobacco dependency, the role of e-cigarettes and key elements of service implementation.

Dr Martin Allen is a Respiratory Physician at University Hospital of North Staffordshire. In the past, he has had interests in a variety of respiratory diseases including TB, COPD, ventilatory support/ weaning and sleep medicine, originating from his research into sleep and physiological changes.

Dr Allen has fulfilled a variety of management and transformational roles within the hospital, including CD and Medicine Divisional Head. He holds a variety of national roles including: chairing the expert working group on coding for NHSD; sitting on the Respiratory CRG; contributing to the Respiratory Long-Term Plan, where he leads on pneumonia; working with the West Midlands AHSN in a variety of roles; and he is the GIRFT National Clinical Lead for Respiratory Medicine and the NSA for Physiological Science.

Sharing the pain: transitioning services

In this presentation, we will look at the role of ICS in developing and commissioning services; the shift from central to ICB of specialised commissioning; and shift of care from acute providers into the community, especially around CDCs.

Alison Armstrong is the Nurse Consultant (Long Term Ventilation) within the regional North-East Assisted Ventilation Service, where she has worked for over 20 years.

Alison represents nursing on a number of groups nationally. Until recently, she was co-Chair of the British Thoracic Society Nurse Specialist Advisory Group and is currently Chair of the BTS Education and Training Committee. She has been the host of the Specialists in Long-term Ventilation at Home (SiLVaH) National Network for the last 15 years.

Alison has an MSc in Practice Development and is an Independent Prescriber. One of her main interests lies in education. She is passionate about promoting independence and ensuring an enhanced quality of life for her complex patient group.

Emily Ballard, BSc MSc IP, is a Clinical Specialist Physiotherapist and Transitional Care Co-ordinator for Progressive Neuromuscular Disease and has worked at Guy's and St Thomas' since 2003 and for the Lane Fox Respiratory unit (LFRU) for the last 16 years, qualifying as an Independent Prescriber in 2022. She co-ordinates the transition between the Evelina Children's Hospital and the LFRU for patients with progressive neuromuscular disease and respiratory failure as part of the tertiary neuromuscular service. She also co-ordinates the LFRU out-patient set up service providing rapid access ventilation set up clinics.

Emily's particular interests are non-invasive ventilation, tracheostomy weaning and cough augmentation, where she has extensive experience, in paediatric and adult critical care. She has worked within the LFRU home outreach service for many years and now runs autonomous ventilation and airway clearance clinics at the LFRU and the LFRU satellite unit at East Surrey Hospital. She also provides regional community education to support patients requiring home mechanical ventilation and cough augmentation and is actively involved with peer education.

Domiciliary NIV for COPD – implementing HOT-HMV into practice
(Joint presentation with Dr Patrick Murphy)

The session will cover the evidence base for home NIV in patients with chronic hypercapnic respiratory failure and the pathway to deliver this in clinical services. The session will involve use several case studies to highlight different pathways for patients passing from acute admission through to long term care.

Dr Emily Bartlett is a Consultant Radiologist at the Royal Brompton Hospital in London. She trained in radiology at King's College Hospital and undertook a three-year fellowship in thoracic imaging at the Royal Brompton. During her fellowship she obtained a PhD focusing on lung cancer screening implementation and lung nodule management. She has a particular interest in oncological imaging, thoracic oncological intervention and lung cancer screening.

What a coincidence: managing incidental findings in Targeted Lung Health Check programmes

This presentation will aim to:

1) Describe the principles of lung cancer screening reporting (vs general thoracic CT reporting).
2) Describe the prevalence of incidental findings detected in previous lung cancer screening trials.
3) Explain the controversies surrounding the reporting of incidental findings in lung cancer screening.
4) Explain the rationale and evidence base for reporting common incidental findings – which incidental findings, when and why?
5) Describe the downstream consequences and implications of reporting incidental findings in lung cancer screening.

Laura Beattie is a disability and inclusive fashion advocate, with cystic fibrosis. She is the co-founder of Careaux, a luxury clothing brand and also co-founded The Inclusive Viewpoint, sharing best practices for an accessible fashion industry. She's an ambassador for the Prince's Trust, Women of the Future, and the NHS Organ Donation campaign.

Katie Burke is a dual Respiratory and Intensive Care Medicine Registrar (ST7/8) training in the North East of England. She is a member of the British Thoracic Society's Critical Care, Respiratory Failure and Mechanical Ventilation Specialist Advisory Group and has contributed to the writing of joint British Thoracic Society and Intensive Care Society guidelines on specialist weaning units.

Jennifer Butler is the Clinical Lead Respiratory Speech and Language Therapist (SLT) in Northumbria and has worked with laryngeal disorders for over 12 years. She works in outpatient SLT clinics and multidisciplinary respiratory clinics including severe asthma, chronic cough, and continuous laryngeal examination during exercise clinics.

Jen is also a Clinical Lecturer at Newcastle University and in 2020, completed a Master's degree in public health research. She co-authored the Royal College of Speech and Language Therapists' position paper on upper airway disorders and strives to raise awareness about upper airway disorders to encourage earlier access to specialist services.

Professor Mat Callister is a Consultant Respiratory Physician at Leeds Teaching Hospitals and Honorary Professor of Respiratory Medicine at the University of Leeds. His research interest is in the early diagnosis of lung cancer both through low-dose CT screening and symptomatic presentation. He is a member of the UK National Screening Committee Lung Task Group, the Targeted Lung Health Check Expert Advisory Group, and is co-chairing the current update of the BTS Pulmonary Nodule Guideline.

Nodules beyond BTS: life goes on

This session will review the existing recommendations for the investigation and management of pulmonary nodules, and highlight key publications and developments since the 2015 BTS guidelines were published. The clinical questions for the current update (due 2024) will be reviewed and areas of controversy discussed.

Dr Nazia Chaudhuri is a respiratory physician with a specialist interest in interstitial lung disease (ILD) service. She is Senior Clinical Lecturer at the University of Ulster and is lead of the Northern Ireland ILD Network. She is Chair of the British Thoracic Society (BTS) Interstitial and Rare Lung Disease Specialist Advisory Group and a member of the European Respiratory Society ILD Long Range Planning Committee.

Nazia is the principal investigator on a number of clinical research trials (>20 over 5 years) in idiopathic pulmonary fibrosis (IPF) and is the UK Chief Investigator of two clinical trials on progressive ILDs and a trial in IPF. She is collaborator on a number of grants and has co-authored over 50 peer reviewed articles. You can view Dr Chaudhuri's full biography on https://pure.ulster.ac.uk/en/persons/nazia-chaudhuri.

Dr Ian Cliff is a Consultant Clinical Scientist (Head of Respiratory and Sleep Physiology) based at the University Hospitals of North Midlands where he oversees diagnostic, assessment and therapeutic management.

He completed an undergraduate degree in Clinical Sciences in 2004. Following that, he advanced from Middlesex University with a MSc in Clinical Service Delivery. In 2014 he commenced a professional doctorate (DClinSci) at the University of Manchester, which formed part of the Higher Specialist Scientific Training (HSST) programme, and graduated in summer 2022. He is also past Chair of Standards within the Association for Respiratory Technology and Physiology (ARTP).

Ian has expertise and publications in exercise physiology, peri-operative assessment and environmental effects of commercial airline travel.

Supporting the complex respiratory patient with air travel, including hypoxic challenge testing
(Joint presentation with Dr Heather Green and Laura Beattie)

- Understanding the relevance of a Hypoxic Challenge Test (HCT) and how it is used in the assessment of patients planning commercial flight.
- Increase awareness of the different HCT methodologies and also discuss the results to support our patients and clinical teams.

Dr Suzi (Suzanne) Coles is a Consultant in Public Health Medicine working for the UKHSA National TB Unit. She been working as a consultant focusing on communicable disease control since 2014 and has detailed experience in outbreak and incident management across a range of settings. As part of the TB unit, she works to support the Latent TB Screening Programme and has co-authored the Whole Genome Sequencing Handbook. Suzi also contributes to the BTS MDR Forum providing Public Health advice on cases.

Gráinne d'Ancona, MSc MClinRes IPrescr FRPharmS, is the Consultant Pharmacist for Respiratory and Sleep Medicine at Guy's and St Thomas' NHS Foundation Trust and Senior Lecturer at King's College London. She has contributed to national guidelines and training programmes, is a clinical champion for the NHSE Accelerated Access Collaborative and holds several committee seats, most notably on the NHSE Inhaler Sustainability Delivery Board, the RCP NACAP, the BTS Pharmacist SAG and chairs the NHS London Region Respiratory Medicines Optimisation Group. Her clinical expertise involves optimising care for patients with respiratory disease and particular academic interest is in medicines adherence.

Dr Michael Davies is a Consultant Physician who specialises in sleep medicine and home ventilation at Royal Papworth Hospital, Cambridge. He is Clinical Lead for the BTS Respiratory Support Unit Audit and co-Lead for the BTS acute and home ventilation short course programme. He is currently the national representative for Complex Home Ventilation and Weaning services within NHS England's Specialised Respiratory Clinical Reference Group.

Non-obstructive sleep related breathing disorders: pitfalls and challenges

The presentation will explore the complexities associated with diagnosing and treating non-obstructive sleep-related breathing disorders.

Educational aims include:

- Raising awareness of non-obstructive sleep-related breathing disorders.
- Reviewing diagnostic challenges and determining who needs treatment.
- Proving insights into current treatment options, reviewing current research and future directions.

Dr Davinder Dosanjh undertook his undergraduate training at the University of Oxford, where he also completed a DPhil investigating the use of T cell responses in M. tuberculosis infection diagnosis. He undertook his foundation training in London and then moved to Birmingham for his core medical training. He then gained a respiratory training number in the West Midlands Deanery and subsequently became a Clinical Lecturer at the University of Birmingham. He was appointed as a substantive ILD Consultant at University Hospitals Birmingham in 2018, and since May 2023 has worked as an Honorary Consultant Physician at the Royal Papworth Hospital as well as Senior Medical Director, Early Respiratory and Immunology Clinical Development at AstraZeneca.

Dr Anne Dunleavy is a Respiratory Consultant in St George's Hospital in London and is the tuberculosis, non-tuberculous mycobacterial and bronchiectasis lead within the trust leading a service for a large diverse group of patients. She has research interest in TB, NTMs and bronchiectasis. She graduated from University College Dublin and trained in Dublin and then London including The Royal Brompton, The Royal Free, Northwick Park and St George's. She continues to enjoy the challenges that lung infections present every day.

The spectrum of TB: how to diagnose TB disease

The aim of the presentation is to discuss how to make a diagnosis of TB disease using e.g., symptoms, imaging and blood/tissue tests (including supportive ones e.g., from blood tests and diagnostic ones e.g., by microbiology). This should enable the audience to get an idea of the clinical spectrum of TB, plus what sort of things can be done to improve certainty when either tissue sampling is impossible/too risky or the culture results are negative; including the use of GeneXpert.

Catrin Emery is a Specialist Respiratory Physiotherapist working in the Sleep and Ventilation Outreach Team at the Royal Brompton Hospital, London. The team provides community-based input to those who have complex chronic respiratory conditions and need for mechanical ventilation through a tracheostomy tube or mask ventilation. Catrin enjoys the extended scope of outreach working, and values the opportunity to spend time with patients, deliver personalised care and work collaboratively to support quality of life at home.

Dr 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).

Dr Imogen Felton qualified at Guy's, King's and St Thomas' School of Medicine, London in 2005, having also completed an intercalated BSc in Psychology. In 2012, she was awarded NIHR funding for a PhD in respiratory and genomic medicine at Royal Brompton Hospital and Imperial College London, studying the fungal airways microbiome in adult cystic fibrosis (CF) and non-CF bronchiectasis. Dr Felton completed her post-graduate respiratory specialist training in 2018 with the CF Trust Fellowship award, working in CF centres in the UK (Kings College Hospital, Royal Brompton Hospital and Manchester Adult CF Centre) and in the USA at the Cystic Fibrosis Foundation (CFF) Therapeutics Development Network Centre, University of Washington. Since 2019, she has been a Consultant in Respiratory Medicine and Adult CF at Royal Brompton Hospital with particular expertise in adults with CF and CFTR-related disorders, including reproductive and maternal medicine and CF-diabetes. In 2021, Dr Felton established a unique multi-disciplinary clinical and academic service in CF-Reproductive and Maternal Health reflecting her particular interest in the impact on patient experiences and clinical outcomes following CFTR-mutation specific modulator therapy during CF-pregnancy and parenthood.

CF and pregnancy and decision aids for pregnancy
(Joint presentation with Dr Rhiannon Phillips)

Since the introduction of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) modulator therapies, more individuals with CF are considering having families of their own and an increase in pregnancy rates amongst women with CF has been observed. Educational aims of this presentation are to:

1) Acquire knowledge of key clinical considerations for pregnancy in women with CF, including incidence, impact on maternal and neonatal health outcomes, and recognising the importance of embedding conversations about reproductive health in routine CF care across the full life-course.
2) Learn how women and their healthcare teams can be supported with shared-decision making in relation to reproductive health and the management of CF.

Verity Ford is a Consultant Physiotherapist in the Lancashire and South Cumbria Ventilation Service. She has worked in respiratory medicine for 19 years and specialised in ventilation for 15 years. She has worked across the Northwest in specialised ventilation services including a dedicated weaning unit and has a specialist interest in delivery of acute NIV, weaning from invasive ventilation, long term ventilation and complex airway clearance management.

Verity works in a role across acute care, clinic setting and, in the community, delivering care and management of people requiring long term invasive and non-invasive ventilation. She facilitates and delivers education within the trust across professions, at external events and conferences and in the community to carers, families, and patients. She has a Master's in Advanced Respiratory Physiotherapy and is undertaking her non-medical prescribing qualification.

The development of the consultant physiotherapist role: my journey

- To discuss the role and value of consultant physiotherapists within respiratory within the MDT for respiratory, critical care and MDT.
- To understand the role and value of the consultant physiotherapist in the respiratory and critical care MDT.
- Development of consultant physiotherapy roles across the UK and beyond.
- My journey.
- Planning for your career – pathways for development.
- Developing the role and future aspirations.

Lucy Gardiner is currently a Wellcome Trust PhD Fellow on the Leicestershire Health Inequalities Improvement Programme (University of Leicester). Her PhD focuses on the impact of long COVID in the multimorbid individual. Lucy is an Assistant Professor in Physiotherapy in her substantive post at the University of Birmingham. Having completed the University College London Cardiorespiratory Physiotherapy MSc programme in 2019, Lucy has continued to pursue her research interests in pulmonary rehabilitation, multimorbidity, and health inequalities. She was a member of ACPRC committee and the BTS Pulmonary Rehabilitation Specialist Advisory Group 2018-22.

Inequalities in pulmonary rehabilitation

This presentation will summarise evidence of existing inequalities associated with chronic obstructive pulmonary disease and pulmonary rehabilitation and highlight the limitations of existing data. Factors influencing fair access and personal agency to engage will be considered alongside principles of health equity in the context of pulmonary rehabilitation.

Aims:

- To develop an understanding of inequalities associated with pulmonary rehabilitation and limitations of existing data.
- To consider a principle-informed approach toward progressively achieving health equity in pulmonary rehabilitation.

Dr Benjamin Garfield is a Consultant in Critical Care and Respiratory Medicine at the Royal Brompton Hospital and an Honorary Senior Clinical Lecturer in the Division of Cancer and Surgery at Imperial College. Clinically his interests are in extra-corporeal membrane oxygenation (ECMO), right ventricular failure and pulmonary hypertension. His research has focussed on pulmonary hypertension, skeletal muscle weakness, critical care follow-up and ECMO.

Sort the RV out: management of RV failure in ICU

Right ventricular failure is a common but often unrecognised cause of death on the intensive care unit. There are patient, disease and treatment factors that may contribute to a deterioration in RV function, particularly in patients with cardiorespiratory disease. Through case presentations and exploration of the up-to-date evidence, we will focus on the identification of patients who are at risk of RV failure, the medical management of these patients and the devices we have at our disposal to support the RV whilst the patient recovers.

Dr Peter George MBBS BSc PhD FRCP, is a Consultant Respiratory Physician and the Clinical Lead of the Interstitial Lung Disease Unit at Royal Brompton Hospital.

Dr George was awarded an NIHR Academic Clinical Fellowship in Respiratory Medicine in 2009 and with funding from the Medical Research Council completed his PhD at Imperial College London. He subsequently received specialist training in interstitial lung disease at both Hammersmith and Royal Brompton Hospitals in London as well as National Jewish Health Hospital in Denver, Colorado. He has an Honorary position at the National Heart and Lung Institute, Imperial College London where he currently supervises BSc and PhD students.

Immunosuppressants versus antifibrotics for fibrotic ILDs

In this talk, attendees will receive a cutting-edge update in the rapidly developing field of interstitial lung disease.

This will be a clinically focussed session reviewing the key clinical studies which underpin the basis for both immunomodulatory and antifibrotic therapeutic approaches.

We will debate some of the controversies and explore the future research directions which are likely to influence how this disease area will evolve in the coming years.

Aims:

- To gain and improve knowledge in the diagnostic and treatment approaches for the management of interstitial lung disease.
- To explore the rationale for different therapeutic approaches.
- To review the controversies in the field.
- To understand potential future directions and research opportunities.

Pat Gorman is an ILD Specialist Nurse who is currently working in Antrim Hospital within The Northern Trust in Northern Ireland. Pat's love of respiratory medicine began when she joined the Respiratory Unit in Belfast City Hospital within The Belfast Trust, where she worked for 17 years developing a wealth of skills, and obtained post-graduate diplomas in asthma and COPD.

In August 2006 Pat was appointed Respiratory Nurse Specialist within The Northern Trust. During her time there she has completed post-graduate diplomas in NIV, pulmonary rehabilitation, and an MSc module in ILD. Pat has championed collaborative working within the Trust ILD team which was established in May 2013. Pat co-founded the Northern Trust Pulmonary Fibrosis Support Group in 2014, this is now the Regional Pulmonary Fibrosis NI and has earned its charity status. Pat continues to raise awareness through educational activities both with staff and patients across Northern Ireland.

Stephanie Graham is a Paediatric Cystic Fibrosis (CF) and Respiratory Physiotherapist working at the Great North Children's Hospital in Newcastle upon Tyne. She is fortunate enough to have undertaken a secondment as a clinical specialist in adult CF care in Newcastle providing her with a wealth of CF experience. This has empowered her to meet the needs of all service users from cradle to grave whilst remaining knowledgeable and dynamic to meet the emerging challenges in CF care. Stephanie also represents physiotherapy on the BTS Specialist Advisory Group for CF.

Re-designing CF clinics: fit for a new era

Key objectives for this presentation will be to briefly explore the emerging challenges faced in cystic fibrosis care (CF) and discuss how we may continue to meet the needs of the patients when guiding them through these challenges. The presentation will take into account clinician and patient perspectives to inform how we may develop clinics fit for a new era whilst maintaining high standards of care and adhering to current guidelines.

Educational aims include developing an appreciation for the emerging challenges in CF and identifying the importance of shared decision making to ensure patient centred care and clinics fit for purpose. Delegates will also refresh their knowledge on current guidelines driving practice in CF outpatient clinics.

Dr Alice Gray is a Palliative Medicine Registrar, also dual accrediting in General Medicine. She is based in the West Midlands.

Dr Heather Green undertook specialist training in respiratory and general internal medicine in Manchester, UK graduating in 2005. She gained early clinical experience in cystic fibrosis at the Manchester Adult Cystic Fibrosis Centre and subsequently undertook a research MD in the role of emerging gram-negative pathogens in CF. Following completion of training, she joined Wythenshawe Hospital and is now a Consultant Respiratory Physician in the Manchester Adult Cystic Fibrosis Centre.

Dr Green continues to be involved with research in managing respiratory infections in CF. She also has an interest in developing homecare services for people with CF and leads Manchester's cystic fibrosis home IV antibiotic service and an intensive homecare support service for disengaged adults with CF with complex physical and mental health and social problems.

Interestingly she has a fear of flying.

Supporting the complex respiratory patient with air travel, including hypoxic challenge testing
(Joint presentation with Dr Ian Cliff and Laura Beattie)

This presentation will focus around a clinical case of an individual with cystic fibrosis and severe lung disease who wished to fly on a transatlantic flight. We will discuss important issues to consider for air travel for those with severe lung disease including baseline clinical status and risk factors, stability, provision of oxygen, transport of medications and equipment, provision of supporting documents for travel, insurance and destination considerations.

Dr Frances Grudzinska is a Respiratory Specialist Trainee in the West Midlands. Frances is completing a PhD at the University of Birmingham examining factors influencing outcomes for patients with community acquired pneumonia. Her research centres around improving outcomes for people with pneumonia, with work spanning from innate immune cell function to prediction of adverse outcomes in CAP. Frances is a founding member of RespTRACT – a research collaborative for trainees in the West Midlands.

Dr Gulam Haji was appointed to the post of Consultant Pulmonologist in 2017 within the National Pulmonary Hypertension Service at Hammersmith Hospital, London where he is Co-lead for the Cardio-Pulmonary Exercise Testing service as well as trust joint lead for Venous Thromboembolism. He completed his PhD looking at exercise intolerance and mitochondrial function in obstructive airways disease.

CPEX – why, when, how
(Joint presentation with Max Thomas)

This presentation aims to educate attendees on the importance of cardiopulmonary exercise testing in evaluating breathlessness cases with normal spirometry and echo. The case presentation and discussion of CPET findings will demonstrate how this test can inform clinical decision-making and improve patient outcomes. The presentation will also cover the necessary equipment, patient preparation, and how a test is conducted. Attendees will gain a better understanding of CPET procedure and interpretation of results, and its integration with other clinical and diagnostic data. The ultimate goal is to enhance attendees' knowledge of CPET and its role in the management of breathlessness.

Dr Neil Hamilton is a Consultant Pharmacist and Clinical Pharmacy Research Lead at Sheffield Teaching Hospitals. Neil has publications in the field of both PH and pharmacy practice and has presented research at international conferences. In addition to his local role, Neil is Chairman of PH Professionals; the UK group of allied healthcare professionals involved in the care of patients with PH. He is also the PH Pharmacist on NHS England's Specialist Respiratory Clinical Reference Group.

Outside of work, despite having "two left feet", Neil has two prolific footballing sons and loves weekends on the touchline supporting the boys' teams.

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 immediate past-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 2018.

Natalie Harper, BSc, MSc, RN, QN, currently works as a Respiratory Consultant Nurse in Dorset running nurse led respiratory clinics in three community hospitals and an acute hospital covering a range of respiratory conditions.

Natalie completed her BSc Hons in Respiratory Care in 2012. She continued along the education path completing her MSc in advanced practice in 2016 and is currently undertaking a Doctorate of Professional Practice.

In 2019 Natalie was awarded the title of Queen's Nurse in recognition of her commitment to high standards of patient care and continually improving practice. At present she works with National organisations such as, UKIG, NICE, BTS SAG for Asthma and the RCP on the National Asthma Audit and QI projects.

Dr Richard Hixson FRCA FFICM is a Consultant in Critical Care Medicine, Honorary Senior Clinical Lecturer at the University of Exeter; NHS England Clinical Entrepreneur; Waste and Pollution Lead for the Intensive Care Society Sustainability Working Group; member of NHS England's Sustainable Procurement Forum, the UK Ocean Decade Committee and the Minderoo–Monaco Commission on Plastics and Human Health. Richard co-founded Healthcare Ocean as his main interest is Global Goal 14, Life Below Water and how anthropogenic activities including healthcare procurement, container shipping and molecular pollution adversely affected the marine environment.

Human healthcare and the ocean

Richard will be talking about how humans are damaging our oceans, how changes are occurring at an unprecedented rate and why, without including nature in our sustainability strategies, we will fail to reach 'net zero' and survive the climate emergency. Richard will also talk about how human healthcare has a unique opportunity to reduce this harm, improve the health of the ecosystem and increase carbon sequestration from the atmosphere.

Learning outcomes:

1) To increase understanding of why ocean health is declining and why this is important.
2) To explain how human health and healthcare is linked to nature/ocean health and why without good oceanic health, we will likely fail to ever reach net zero.
3) To provide actions which individuals and organisations can take to reduce their negative impact and improve the health of natural systems.

Dr Rachel Hoyles leads the Oxford Specialist ILD Service. She has a clinical and academic interest in connective tissue disease-associated ILD, having completed a PhD investigating the role of alveolar epithelial cell injury in scleroderma-associated lung fibrosis, both in clinical cohort and in animal models with genetic perturbations of the TGFβ axis. She has published one of few multi-centre RCTs in scleroderma-associated pulmonary fibrosis, and is local PI for multinational IPF, CTD and PF-ILD clinical trials.

Systemic sclerosis ILD – treat on diagnosis or when progresses?

- To review the entity of Scleroderma-ILD, and risk factors for progression.
- To understand the trial evidence for treatment and indications for immunosuppression and anti-fibrotic agents.

Dr Chris Huntley is a Specialist Registrar in Respiratory Medicine at Birmingham Heartlands Hospital and Birmingham Chest Clinic. He has an interest in interstitial and occupational lung disease, and is currently in his final year of his PhD at the University of Birmingham, studying the relationship occupational exposures in pulmonary sarcoidosis.

Dr Catherine Hyams completed the UCL MBPhD programme in 2011, examining the interaction of pneumococcal capsule with complement-dependent immunity. Her Academic Clinical Fellowship at the University of Bristol established the AvonCAP surveillance study. As a Clinical Research Fellow, she now leads this research project, providing key analyses on COVID-19 vaccine effectiveness, disease severity and incidence. Her ongoing work looks to ascertain total and vaccine-preventable community-acquired acute respiratory disease incidence (including RSV, pneumococcus, influenza and SARS-CoV-2) and evaluate the impact of current and future vaccines against respiratory infection. Dr Hyams is a member of the UK COVID-19 Vaccine Effectiveness and Expert Panel Working Groups, as well as trainee member of the BTS Pulmonary Infection SAG.

Dr Llinos Jones is a Consultant Respiratory Physician with a specialist interest in asthma at the Mid-Yorkshire NHS Trust, where she is also the Clinical Lead for Physician Associates. Since joining the multidisciplinary Difficult Asthma service, she has become keen to help address health inequalities, and over the last few years has worked to create a variety of multilingual and multimedia resources for asthma patients. She has founded a national repository with the BTS Respiratory Futures team for these and continues to work towards improving inclusivity and our understanding of the cultural aspects of asthma care.

Ethnicity and socio-economic differences

This session aims to give a brief overview of inequalities affecting patients with asthma in the UK. The session will focus in particular on the barriers patients can face in accessing asthma treatments and information. These include language, health literacy, and cultural misconceptions, and will discuss some strategies to overcome these barriers including the use of co-produced multilingual resources and community champions.

Steve Jones lived with idiopathic pulmonary fibrosis (IPF) before receiving a lung transplant. He is Chair of Trustees at Action for Pulmonary Fibrosis and President of the European Pulmonary Fibrosis Federation. He is also a member of OneVoiceILD and a patient representative on the NHS Clinical Reference Group – Specialised Respiratory.

Self-management: what it means for patients

Steve will moderate a discussion on self-management with two patients (one living with ILD and the other asthma) and a carer. The discussion will focus on their views on self-management and how health care professionals and health care systems can support patients and their families in self-management of chronic lung diseases.

Rachel Jordan is a Professor of Epidemiology and Primary Care at the University of Birmingham. Her research focuses mainly on the diagnosis, management and prognosis of COPD in primary care where she has held a number of large UK-based grants, and includes published work on the effectiveness of self-management support for COPD and improving referral for pulmonary rehabilitation. Her international interests include membership of the research leadership committee of the International Primary Care Respiratory Group, and a Global COPD Group grant from the NIHR to build research capacity among respiratory-interested GPs and their teams in Brazil, China, North Macedonia and Georgia.

Dr 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) where he is the Medical Director and the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) where he is the Lead Clinical Co-ordinator.

Hanna Kaur is Lead TB Nurse Specialist for Birmingham and Solihull, University Hospitals Birmingham. Hanna runs the TB Nursing Service for Birmingham and Solihull, and is also the RCN Public Health Chair. She has worked in TB since 2008, in Birmingham and London. Hanna's background is in intensive care nursing and occupational health.

Professor David Kiely is a Consultant Respiratory Physician and Professor of Pulmonary Vascular Medicine at the University of Sheffield and was a member of the 2022 ESC/ERS Pulmonary Hypertension Guidelines Task Force. His research interests include the diagnosis and classification of pulmonary hypertension with a focus on imaging. He has participated in multiple randomised controlled trials of pulmonary arterial hypertension therapies and in research funded by the National Institute for Health Research, the British Heart Foundation, Wellcome Trust and the Medical Research Council.

What is the new definition and classification or pulmonary hypertension now?

The presentation will provide an update on the new definition of pulmonary hypertension, provide an overview of the importance of classification of and outline an approach to the diagnosis of pulmonary hypertension. Screening high risk groups and an approach to the systematic evaluation of the breathless patient to highlight features suggestive of pulmonary hypertension will also be highlighted. The aim of the presentation is to equip the respiratory physician with the tools to identify patients with pulmonary hypertension and facilitate the referral of patients most likely to benefit from treatment.

Marc Lipman is Professor of Medicine at University College London, and Consultant in Respiratory and HIV Medicine at the Royal Free London NHS Foundation Trust. He is Lead for Mycobacterial Services at the Royal Free and Director of UCL-TB, UCL's cross-disciplinary TB research group. He chairs the UK Joint Tuberculosis Committee, and NTM Network UK. He sits on international and national guideline groups for TB and HIV-related respiratory infection.

Pulmonary infections in HIV-infected individuals: past, present and future

Since the earliest reports of fungal Pneumocystis pneumonia affecting people with advanced HIV disease, pulmonary infection has been recognised as common, often severe and with the potential to arise from a wide variety of pathogenic and opportunistic organisms. Antiretroviral therapy taken consistently and for life will significantly reduce the risk of respiratory infections of all types. However, other measures such as vaccination, preventive therapy for specific conditions such as TB in endemic areas, and smoking cessation are additionally required if the benefit of immune reconstitution is to be fully-realised. This presentation will use case-histories to illustrate what respiratory clinicians need to know about HIV-related pulmonary infections in 2023.

Jim Lordan, MB, FRCP (London), MRCP(Ireland), BSc, PhD, DME, DCH, Dobs, was appointed in 2002 as a Consultant Physician in Respiratory Disease with a specialist clinical interest in pulmonary vascular disease, lung transplantation, lung vasculitides, and difficult asthma. He is Director of the Northern Pulmonary Vascular Unit at the Freeman Hospital, Newcastle upon Tyne. His clinical research activities are in lung transplantation, pulmonary hypertension, severe asthma, and lung vasculitis.

Jim is a graduate of University College Cork (National University of Ireland), has an intercalated Honours Batchelor of Science degree in Physiology at UCC, and subsequent PhD Thesis assessing the role of Th2 cytokines and allergens in airway inflammation of atopic asthma at the University of Southampton. Earlier research interests at the University of Newcastle upon Tyne included inflammatory and airway remodelling, primary epithelial cell culture systems, epithelial mesenchymal mechanisms in airway remodelling of chronic airways disease including post-transplant bronchiolitis obliterans syndrome (Chronic Lung Allograft Dysfunction), asthma, and cystic fibrosis. He is Chair of the National Pulmonary Hypertension Physicians Group.

What do you do when your patient is not improving? Lung transplant and mechanical support

- To understand the acute management of an acutely declining PAH patient.
- To appreciate the advanced ITU support measures available for the support of a declining PAH patient including veno-arterial extra-corporeal membrane oxygenation (VA-ECMO), PA to LA Novalung shunt device.
- To understand the criteria for referral and listing for lung transplantation.

Siobhan Ludlow is the Consultant SLT and Service Lead for the Manchester Airways Service which is a tertiary referral centre for patients with complex breathlessness. She treats patients with a variety of conditions including; upper airway dysfunction, chronic cough and difficult to control asthma. Siobhan has a specialist interest in Inducible Laryngeal Obstruction (ILO), Exercise Induced Laryngeal Obstruction (EILO) and cough hypersensitivity syndrome and has written several papers in these areas.

Siobhan is currently Membership Secretary of the Respiratory SLT Clinical Excellence Network and was involved in writing the Royal College of Speech and Language Therapist's position paper, 'Speech and language therapy in adult respiratory care (2015)'.

Siobhan is very committed to clinical research; she has attended numerous national and international conferences presenting her work and is due to start her PhD in developing a Patient Reported Outcome Measure (PROM) for upper airway conditions.

Dr Alisdair MacConnachie completed consultant training in January 2007 and is currently a Consultant Physician in Infectious Diseases and General Medicine at the Queen Elizabeth University Hospital in Glasgow. He leads the Travel Medicine Service, looking after returning travellers and giving pre travel advice.

Qualifications include CCT Infectious Diseases and General Internal Medicine (31 January 2007), Member of the Faculty of Travel Medicine RCPSG (Glasg) (July 2006), DTMH (April 2006), MRCP UK (October 2001), MBChB University of Aberdeen (July 1998), PhD Department of Medicine and Therapeutics, University of Aberdeen (August 1996) and BSc (Med Sci), Department of Medicine and Therapeutics, University of Aberdeen (August 1993).

There and back again: pulmonary infections in the returning traveller

Respiratory infection is often described as the second most common syndromic illness in returning travellers. A history of travel often introduces a level of diagnostic uncertainty as there is often a limited experience of infection in the countries visited. In this presentation we will look at assessment and possible diagnoses in ill returning travellers.

Dr Swapna Mandal qualified in medicine at Guy's, King's and St Thomas' medical school and subsequently received a PhD from King's College London, for her work in the investigation and management of ventilatory failure. She is the lead Consultant Physician in Sleep and Ventilation at the Royal Free London NHS Foundation Trust, focusing on the management of sleep disordered breathing. The service covers a large geographical area treating a range of patients with often complex needs including those with progressive neurological disorders and ventilatory failure. She is also the clinical lead for lung function services across the trust and has introduced innovative diagnostic pathways. She currently sits on the BTS Sleep SAG. She continues her pursuit of academic interests in sleep and ventilation medicine and is supervising several PhD students as well as actively improving patient care through quality improvement projects.

Non-CPAP therapies in OSA

This talk will summarise the current recommendations for non-CPAP therapies for OSA and will discuss the evidence base in alternative treatments including: mandibular advancement splints, positional therapy, surgery and neuromuscular stimulation.

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.

Dr Fraser Millar is a Respiratory Registrar and Academic Clinical Lecturer at the University of Edinburgh. He completed his early training in London before moving to Edinburgh to continue his research and clinical speciality training. He has a clinical and research interest in early-stage lung cancer, interventional pulmonology and novel early detection approaches.

Alyn Hugh Morice MD, FRCP, FBPhS, was appointed Foundation Chair and Professor and Head of the Respiratory Research Group, Hull York Medical School, University of Hull in 1998. Cough has been described as the Cinderella symptom of respiratory disease and has been his main research interest. He has pioneered investigation into the epidemiology, diagnosis and therapeutics of cough culminating in the production of national and ERS cough guidelines (ERJ 2020). His research on the neuronal mechanisms has radically altered our understanding leading to the concept of cough hypersensitivity. This has been translated by RCTs into therapeutic advances (opiates and P2X3 antagonists). Whilst overlapping with other respiratory disease, it is now recognised as a distinct condition (the cough hypersensitivity syndrome).

Debate: "Reflux is an important mechanism in chronic cough" – Pro

The Oxford English dictionary defines reflux as "the flow of a fluid through a vessel or valve in the body in a direction opposite to normal." And gives the example "the majority of leg ulcer patients are elderly with simple superficial vein reflux". It is NOT GERD. Peptic symptoms are caused by acid reflux whereas airway reflux is frequently non-acid and gaseous. Deposition of this aerosol damages the epithelium, alarmins are released which cause hypersensitivity of the vagus nerve and its central projections. The clinical history of airway reflux events is formalised in the HARQ questionnaire. 95% of over 2000 patients in the Gefapixant studies scored above the upper limit of normal on the HARQ.

Dr Patrick Murphy is Consultant Respiratory Physician and Clinical Lead of the Lane Fox Unit at Guy's and St Thomas' Hospital, one of largest home ventilation centres in Europe. He is Reader in Respiratory Medicine at King's College London with an interest in respiratory physiology and optimisation of sleep disordered breathing in patients with chronic respiratory failure.

Domiciliary NIV for COPD – implementing HOT-HMV into practice
(Joint presentation with Emily Ballard)

The session will cover the evidence base for home NIV in patients with chronic hypercapnic respiratory failure and the pathway to deliver this in clinical services. The session will involve use several case studies to highlight different pathways for patients passing from acute admission through to long term care.

Dr James Newham joined Northumbria University in December 2019 and is currently a Senior Lecturer. Prior to this, he completed his PhD at the University of Manchester and his MPhil Neuroscience at Newcastle University. He subsequently held a joint appointment at King's College London as both Lecturer in Child Public Health and as Trial Coordinator. His research focuses on the implementation of population-level preventative health intervention to address biopsychosocial needs in vulnerable groups, and focuses on identifying wat are the active behaviour change components behind effective health interventions.

Features of self-management in COPD. Results of a systematic review and meta-analysis

Self-management interventions (SMIs) are recommended for individuals with COPD to help monitor symptoms and optimize health-related quality of life (HRQOL). However, SMIs vary widely in content, delivery, and intensity, making it unclear which methods and techniques are associated with improved outcomes. This systematic review aims to summarise the current evidence base surrounding the effectiveness of SMIs for improving HRQOL in people with COPD. Studies show that SMIs can be effective at improving HRQOL and reducing ED visits, with those targeting mental health being significantly more effective than those targeting symptom management alone.

Dr Claire Nolan is a Lecturer in Physiotherapy at Brunel University London. Her research interests include clinical trials, pulmonary rehabilitation, alternative rehabilitation strategies, physical activity, outcome measure validation in people with chronic respiratory disease, particularly chronic obstructive disease and idiopathic pulmonary fibrosis. Claire is also an Honorary Senior Research Physiotherapist in the Harefield Respiratory Research Group, Royal Brompton and Harefield Clinical Group.

She is a member of the British Thoracic Society Pulmonary Rehabilitation Specialist Advisory Group and NHSE National Pulmonary Rehabilitation Programme.

Digital habits of pulmonary rehabilitation service users: challenges and opportunities

This talk will provide a brief overview of national policies and international initiatives on digitisation of healthcare. The opportunities to use digital technology as part of pulmonary rehabilitation, as well as challenges, including access to digital technology, ethical issues, patient centred-care and privacy, will be discussed.

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 and her research interests are lung cancer screening, early diagnosis and epidemiology of lung cancer. She is Chair of the British Thoracic Society Lung Cancer and Mesothelioma Specialist Advisory Group and a member of the UK Lung Cancer Clinical Expert Group.

Current status of lung cancer screening in the UK

This talk will give an overview of the current status of screening for lung cancer in the UK since the positive recommendation by the UK National Screening Committee in 2022, and highlight the next steps towards a full national programme.

Dr Mark Orme is a Lecturer in the Department of Respiratory Science, University of Leicester, UK. He is also Early Career Researcher Lead for the department and a member of the American Thoracic Society Pulmonary Rehabilitation Web Committee.

Mark completed his PhD on the topic of physical activity and COPD at Loughborough University in 2017. Since 2019, he has been co-investigator on a National Institute for Health and Care Research Global Health project on pulmonary rehabilitation in low- and middle-income countries (LMICs), supervising several PhD students and leading on research capacity building activities for early career researchers based in LMICs.

Tackling inequalities in pulmonary rehabilitation in low- and middle-income countries

This talk will set the scene for existing health inequalities in pulmonary rehabilitation availability in low- and middle-income countries (LMICs). Specifically, the talk will:

1) Describe the landscape of pulmonary rehabilitation in the context of global burden of chronic respiratory diseases in LMICs.
2) Explore challenges to developing and accessing pulmonary rehabilitation in LMICs and potential solutions.
3) Consider appropriate adaptations to pulmonary rehabilitation to improve uptake, completion and effectiveness.

Dr Sean Parker trained in Oxford and Newcastle and completed an MD looking at airway epithelial senescence. He has worked as a consultant for Northumbria Healthcare since 2008, and alongside general respiratory practice, has developed a cough service with a particular emphasis on providing patients access to non-pharmacological treatments and clinical trials of novel antitussives. He is the current Chair of the BTS Cough Specialist Advisory Group and co-chairs the group currently producing the BTS Clinical Statement on Cough.

Sara Parsons graduated her second degree in 2008 in Clinical Physiology. She worked in the Sleep and Ventilation Unit at the Bristol Royal Infirmary for five years dealing with highly complex patients on ventilation. In 2012 she became the Chief Physiologist for Respiratory Physiology at St George's University Hospitals NHS Foundation Trust, becoming a Consultant Clinical Scientist in early 2017. She has just completed her six-year tenure as Chair of the ARTP Sleep Committee as of March 2023, she is a member of the Regional ARTP committee and Healthcare Science Course Committee. She also teaches on the Physiology degree programme.

Sara's clinical and research interests and expertise include ventilation and complex sleep disorders. She is currently undertaking a doctorate with her thesis looking into the sleep architecture, sleep-wake patterns, plasma biomarkers and MRI comparisons in OSA and amnestic mild cognitive impairment.

Miss Padmavathi Parthasarathy, MSc Advanced Clinical Practice, PG Diploma in Critical Care, PG Diploma in Respiratory Medicine, BSc Nursing, is an Advanced Clinical Practitioner in Respiratory Medicine currently working in University Hospital Leicester. She is co-Chair of the BTS Nurse Specialist Advisory Group, Vice Chair of the Respiratory ACP Network, a member of the BTS SOCC Committee and of the BTS Education and Training Committee, and a member of the Respiratory ACP Curriculum Development Committee (HEE/RCP).

Padmavathi has completed her BSc Nursing in India and has worked in various roles, both overseas and in the UK. She has worked as a clinical instructor, staff nurse, ward sister, nurse practitioner in critical care outreach and out of hours service before moving into her current role as respiratory advanced clinical practitioner.

Dr Suman Paul is a Specialist Registrar in Respiratory and General Medicine currently working at Aintree University Hospital, Liverpool. He is also a member of the BTS Specialist Advisory Group on Tuberculosis.

Dr Joanna Pepke-Zaba, PhD, FRCP, graduated from Warsaw University School of Medicine in Poland, followed by fellowship in respiratory physiology at Papworth and Addenbrooke's Hospitals, University of Cambridge, which resulted in a PhD. She was the lead physician and Director of the National Pulmonary Vascular Diseases Unit at Royal Papworth Hospital from 2003 to September 2019. She was instrumental in the organisation of pulmonary hypertension services in the UK, and specifically the National Chronic Thromboembolic Pulmonary Hypertension programmes with PEA and BPA services.

Joanna has been the Honorary Senior Visiting Fellow, University of Cambridge and School of Clinical Medicine since 2011. Her main research has concentrated on translational programmes in the field of pulmonary hypertension with specific interest into CTEPH and PAH. She serves on various scientific and educational international committees. She is a member of numerous professional organisations, including the BTS, ERS, ESC, ISHLT, PVRI and ICA. She is section editor of JHLT and has published over 200 papers in peer reviewed journals.

Update in chronic thromboembolic disease: how should I investigate my post PE patients?

Educational aims:

1) Incidence of CTEPH after acute PE.
2) State of the art: diagnosis and management of Chronic Thromboembolic Pulmonary Disease (CTEPD) with and without pulmonary hypertension.
    a. Diagnostic and management algorithm update from 2022 ESC/ERS guidelines on PH;
    b. Overlap between pulmonary endarterectomy (PEA) and balloon pulmonary angioplasty (BPA);
    c. Is there a role for multimodality approach in CTEPH?
    d. CTEPD /exercise induced PH;
    e. Identifying patients with post PEA persistent PH;
    f. Survival of CTEPH patients: can we cure CTEPH?

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

She 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 thank you, I can do it on my own": motivating patients to accept referral to tobacco dependency services.

Have you ever had a conversation with a patient who has a tobacco dependency who was reluctant to accept any help? You may be left wondering if, or how, you could have handled it differently.

This session will aim to equip you with ways to effectively engage, discuss and motivate your patient by using realistic and practical tips to ensure a positive outcome.

This session is relevant to all members of the multi-professional team with an interest and passion for treating tobacco dependence.

Dr Rhiannon Phillips is a Reader in Health Psychology at Cardiff Metropolitan University and is currently the National Research Lead for the British Psychological Society Division of Health Psychology. The focus of her research is on understanding risk perception and decision making in relation to common infections and reproductive health. Rhiannon is interested in facilitating shared decision-making in healthcare settings and communication of health-related risk. She has been using a mixed-methods approach with women with cystic fibrosis to understand how they make decisions about starting a family and to design interventions to support them with these complex and emotional decisions.

CF and pregnancy and decision aids for pregnancy
(Joint presentation with Dr Imogen Felton)

Since the introduction of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) modulator therapies, more individuals with CF are considering having families of their own and an increase in pregnancy rates amongst women with CF has been observed. Educational aims of this presentation are to:

1) Acquire knowledge of key clinical considerations for pregnancy in women with CF, including incidence, impact on maternal and neonatal health outcomes, and recognising the importance of embedding conversations about reproductive health in routine CF care across the full life-course.
2) Learn how women and their healthcare teams can be supported with shared-decision making in relation to reproductive health and the management of CF.

Jemma Price is a Senior Specialist Physiotherapist within the North West Ventilation Service, a regional long term ventilation service in the North West. She is the AHP lead for the NWVS transition service, and has a specialist interest in paediatric transition for young people with complex needs requiring ventilation. Nationally, through the SiLVaH network, Jemma has established a working group to develop practice and standards of care for paediatric transition across LTV centres. She is extremely passionate to continue to improve transitional care for young people requiring long term ventilation.

Growing pains: transition to adulthood

This talk aims to explore the complexities of paediatric transition and transfer into adult services for young people with complex needs. A key focus of this talk will be the importance of the voice of the young person and their support network to individualise the transition process. The need for coordinated MDT working across paediatric and adult services will be explored. The key challenges during transition will be identified and the solutions utilised within an LTV service will be discussed. Developments in transition guidance and ongoing projects within LTV services to develop transition for this complex patient group will be reviewed.

Dr Laura Price is a Consultant Respiratory Physician at Royal Brompton Hospital. She studied medicine at the University of Bristol and trained in respiratory and general medicine in North-West London; in Paris at the largest PH centre in Europe and completed a PhD in pulmonary hypertension.

She is an integral member of the National Pulmonary Hypertension Service at Royal Brompton Hospital, and during inpatient work, manages emergencies relating to pulmonary hypertension or co-existing medical conditions.

Dr Price's areas of research include pulmonary hypertension related to lung diseases, notably interstitial interstitial lung diseases. She has written over 100 peer-reviewed articles.

Dr Tim Quinnell has worked at Royal Papworth Hospital, Cambridge since 2004 and now leads one of the UK's largest sleep and ventilation centres. He specialises in respiratory and non-respiratory sleep disorders, domiciliary non-invasive ventilation and weaning from invasive ventilation. His MD was on genetic and electrophysiological aspects of narcolepsy. He was Chief Investigator for the NIHR Trial of Mandibular Advancement Devices in OSA and now leads an NIHR trial of combination therapy in OSA. He is current Chair of the BTS Sleep Specialist Advisory Group. Tim is actively engaged in providing and developing multidisciplinary sleep medicine education.

OSA: investigation and management – reconciling real-life with the NICE guidelines

NICE published new OSA guidance in 2021. This included an update to the 2008 CPAP technology appraisal and extended into diagnostics, non-CPAP therapies and obesity hypoventilation syndrome (OHS). The guidance makes recommendations on choice of sleep study in suspected OSA, the use of CPAP and covers alternatives to CPAP. The same is done for OHS and COPD-OHS overlap syndrome. As always, the process of guideline development identified areas of controversy and uncertainty. The basis for some of the key recommendations will be explored and their real-life application discussed.

Dr Sheila Ramjug is a Consultant Pulmonologist with a specialist interest in pulmonary vascular and interstitial lung disease working at Salford Hospital (part of the Northern Care Alliance NHS Foundation Trust). She holds an MD in pulmonary vascular disease attained with the Sheffield PVDU research team. She is part of the BTS Pulmonary Vascular Disease Specialist Advisory Group, and prior to this was a member of the British Thoracic Society Education and Training Committee. Previously Sheila was also a member of the ERS monograph editorial board as well as the early career member representative of Assembly 13, pulmonary vascular disease.

Dr Louise Restrick works as a respiratory physician at Whittington Health, London. She has a long-standing commitment to value-based respiratory care including the delivery of evidence-based treatment for tobacco dependence by clinical teams. She co-led the team that created the 'COPD Value Pyramid' and the London Senate's 'Helping Smokers Quit' Programme. She was a member of the most recent NICE COPD Guidelines Committee and is a member of the BTS 'Medical Management of Tobacco Dependency' Group.

Dr Nicola Roberts is an Associate Professor within the School of Nursing and Social Care at Edinburgh Napier University. She is a health services researcher with an interest in the delivery of respiratory care and a Visiting Senior Lecturer at King's College.

Her current focus is on two main areas. Firstly, upskilling healthcare staff and students to deliver respiratory care. Recent work has focussed on how respiratory care is taught to pre-registration nursing students and how confident graduating students are about their respiratory clinical skills.

The second area of focus is on improving delivery of respiratory care within pulmonary rehabilitation; recent work looks at how the educational component of pulmonary rehabilitation is delivered.

She is a member of the Pulmonary Rehabilitation Clinical Statement Group at the British Thoracic Society. She is also a member of the American Thoracic Society (ATS) conference organising committee for the pulmonary rehabilitation assembly.

Jane Rodger works as a Senior Nurse Specialist with the North East Assisted Ventilation Service based at the Royal Victoria Infirmary, Newcastle Upon Tyne. With 23 years' experience as a nurse specialist both in respiratory and home ventilation, she has a special interest in COPD, neuromuscular disease and exploring patient and carer experience within home ventilation.

More recently Jane has developed a high flow therapy service for patients with interstitial lung disease, integrating this within the home ventilation team and is looking forward to developing this further.

Clare Rossall is an Advanced Practice Physiotherapist based at Glenfield Hospital, University Hospitals of Leicester. Clare graduated from the University of Northumbria in 2022 and has specialised in non-invasive ventilation for approximately the past 15 years. She has extensive experience weaning complex patients from ventilation in intensive care and managing long term ventilation in the community. She currently leads the Respiratory Support Team specialising in delivery of acute non-invasive ventilation services. Clare has a passion for embedding evidenced based guidelines into clinical practice, improving standards of care, patients experience and outcomes.

Optimising NIV delivery across the MDT team and best patient care for COPD when it doesn't work

There are clear, evidenced based guidelines, recommendations and quality standards on the optimal delivery of acute non-invasive ventilation services, however there are still concerns regarding poor patient outcomes and high mortality rates. Progress with service improvement can often appear slow and there are wide variation of models of service delivery across the country.

1) Optimising the delivery of acute NIV services and enhancing patient outcomes using a multi-disciplinary approach.
2) Supporting patients with COPD when they find NIV difficult to tolerate.
3) Withdrawing NIV, when appropriate, in an acute environment.

Dr Hitasha Rupani is a Consultant Respiratory Physician in University Hospital Southampton NHS Foundation Trust and leads the Southampton Severe Asthma Centre. She chairs the British Thoracic Society Specialist Advisory Group for Asthma and is a member of the Specialised Respiratory Clinical Reference Group. She is an Associate Editor for ERJ Open Research. She has a PhD from the University of Southampton and continues to actively engage in asthma research.

Biologics and biomarkers: what to choose and when to refer

This presentation will aim to:

- Highlight the role of biomarkers in managing asthma (stable disease, uncontrolled asthma, exacerbations).
- Discuss clinical cases to understand factors involved in biologic choice in severe asthma.

Dr Louise Seagar started her career as a Clinical Scientist in NHS Lothian performing HPV research while working towards her PhD at the University of Edinburgh, which was awarded in 2002. She has been a Clinical Scientist at the Scottish Mycobacteria Reference Laboratory for over 20 years where she has been responsible for the investigation and development of novel technologies for mycobacteria detection, particularly M. tuberculosis complex identification and typing. Most recently this has included introduction of a new whole genome sequencing service for mycobacteria in February 2022.

The ongoing development of whole genome sequencing: what's coming down the pipeline?

Whole genome sequencing (WGS) has significantly improved laboratory diagnostics in many developed countries, particularly for diagnosis and management of TB disease. In January 2022, the Scottish Mycobacteria Reference Laboratory (SMRL) introduced a new WGS service for species identification, MTBC resistance prediction and relatedness assessment. This presentation will summarise SMRL's current routine diagnostic workflow as well as discuss result interpretation and quality assessment using the UK Health Security Agency (UKHSA) bioinformatics pipeline (Compass). The benefits and challenges of WGS will be highlighted. The development of culture-independent sequencing and metagenomics-based sequencing will also be discussed.

Claire Slinger is a Consultant Speech and Language Therapist, Lancashire Teaching Hospitals NHS Trust and Professional Advisor to the Royal College of Speech and Language Therapists (Field of Adult Respiratory care). She is co-author of the RCSLT Position Paper Upper Airway disorders, lead author of a Cochrane (Airways) review into speech therapy for chronic cough, and current panel member of the BTS Cough Specialist Advisory Group.

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 tolerating mechanical insufflation-exsufflation and/or non-invasive ventilation. She is currently investigating the utility of non-invasive tools to assess laryngeal dysfunction.

Claire is currently working as Consultant SLT and Service Lead for Preston Complex Breathlessness (Airways) Multi-Disciplinary Team, Lancashire Chest Centre, Royal Preston Hospital, Lancashire Teaching Hospitals Trust.

Debate: "You don't need drugs to treat chronic cough" – Pro

- Overview of evidence and current clinical practice behind non-pharmacological treatment of chronic cough.
- Emphasise the role of wider MDT in the assessment and management of chronic cough.
- Highlight the advantages of non-pharmacological management of chronic cough, and to provide the patient's perspective and case examples.
- To address the non-pharmacological management of chronic cough from tertiary to secondary care.

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 area of clinical expertise and interest is 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 NHSE/PHE Independent High-Risk Aerosol Generating Procedures Panel, Intensive Care Society Physiotherapy Professional Advisory Group and the Equity, Diversity and Belonging Committee of the Chartered Society of Physiotherapy.

Max Thomas is a Clinical Scientist and leads a CPET service in Birmingham. The service sees approximately 450 patients per year for pre-operative assessment, dyspnoea assessment, and suspected exercise-induced laryngeal obstruction. Max is passionate about CPET and CPET education, and gets involved with training of physiology, medical and surgical colleagues in all things CPET. He is currently undertaking a doctoral level programme, the HSST, and his thesis is focused on advanced utilisation of CPET for preoperative assessment.

CPEX – why, when, how
(Joint presentation with Gulam Haji)

This presentation aims to educate attendees on the importance of cardiopulmonary exercise testing in evaluating breathlessness cases with normal spirometry and echo. The case presentation and discussion of CPET findings will demonstrate how this test can inform clinical decision-making and improve patient outcomes. The presentation will also cover the necessary equipment, patient preparation, and how a test is conducted. Attendees will gain a better understanding of CPET procedure and interpretation of results, and its integration with other clinical and diagnostic data. The ultimate goal is to enhance attendees' knowledge of CPET and its role in the management of breathlessness.

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.

Physiology Quiz Live Q&A Session

During this session the Physiology Quiz cases will be presented and the answers revealed, with opportunities for delegates to ask questions and take part in live voting.

The Physiology Quiz cases will be available on the conference App throughout both days of the Meeting.

Dr Paul Walker is a Consultant Respiratory Physician in Liverpool University Hospitals Foundation NHS Trust and Sefton Community Respiratory Team and Honorary Senior Lecturer at University of Liverpool. He is current Chair of the British Thoracic Society, having previously been Honorary Treasurer and Chair of the Education and Training Committee for BTS.

His clinical interests are COPD, bronchiectasis, pulmonary physiology and pulmonary rehabilitation and he has published research in all these areas. He has a long-standing interest in health inequality and the impact of social deprivation on health access and outcomes. He has led work looking at the presence of COPD and asthma in heroin smokers and examining access to and engagement with healthcare in these populations. Part of his work time is spent working in an integrated community respiratory service and he is Diagnostics Lead for Merseyside and Cheshire ICB.

Dr Gareth Walters is an NHS Consultant in Occupational Respiratory Medicine in Birmingham, and Honorary Senior Research Fellow at the University of Birmingham. He leads the Birmingham Regional NHS Occupational Lung Disease Service and is a member of the Group of Occupational Respiratory Disease Specialists (GORDS-UK) and the Industrial Injuries Advisory Council. Gareth's research interests are in the occupational aspects of airways diseases and interstitial lung disease, as well as early case finding in work-related disease.

Doctor, doctor, is my job making me ill and should I quit?

Using clinical cases, this presentation will examine the management of occupational lung diseases with respect to employment, management of risk and workplace control, occupational health provision and general medical advice. This will focus on short latency work-related disease such as asthma and hypersensitivity pneumonitis. The broad aim of this presentation is to understand from the perspectives of healthcare professional and patient, how respiratory care interacts with health and safety and occupational health provision in occupational lung disease.

Dr Chris Warburton a Consultant Respiratory Physician at Liverpool University Hospitals NHS Foundation Trust and is Medical Director of the Cheshire and Merseyside Cancer Alliance.

He was the inaugural Chair of the BTS Occupational and Environmental Specialist Advisory Group and is a member of GORDS (the Group of Occupational Lung Disease Specialists), contributing to guidelines in this field. Chris has provided an occupational lung disease service for Cheshire and Merseyside for more than 20 years.

How to spy cases of occupational lung disease in the ILD clinic

There is a described and recognised occupational exposure which can cause lung disease with an identical or similar clinical and radiological pattern to nearly all idiopathic interstitial lung diseases. The talk being given is designed to raise awareness of those occupationally related diseases and their cause. The case for accurate diagnosis will be made, and the consequences of missing them will also be discussed.

Dr Martin Wildman is a Consultant in Respiratory Medicine and Adult CF at Sheffield Teaching Hospitals NHS Foundation Trust. He has training in public health (training at the London School of Hygiene and Tropical Medicine) and an interest in the development, evaluation and implementation of complex interventions in long term conditions.

CF Health Hub: learning health system and habit lab

The presentation will explore how system optimisation can be supported by a learning health system underpinned by a behavioural coherent conceptual framework.

Natalie Wilson completed the Scientist Training Programme (STP) in 2021 and is a Specialised Respiratory Physiologist at Nottingham University Hospitals Trust. She is currently developing her skills in cardiopulmonary exercise testing and non-invasive ventilation.

Arran Woodhouse is the Senior Tobacco Programme Manager for North Central London and has been working in the field of tobacco dependence for over 20 years, working in both acute and community settings. Previously he was the Clinical Lead for Tobacco Dependence at King's College Hospital, with responsibility for implementing a version of the Ottawa Model for Smoking Cessation as an NHSE Early Implementer Site. He has a background in health psychology and worked with NICE on the recent Tobacco Guideline (NG209) as a topic expert, and is a past member of the British Thoracic Society Tobacco Specialist Advisory Group.

Cases from the tobacco dependency clinic: from the routine to the complex

This presentation will look at clinical cases from the perspective of the Tobacco Dependence Specialist working in an acute setting. Drawing on routine and complex cases, a specialist's perspective of understanding a patient's tobacco dependence, and the skills and interventions used to support the patient, will be presented. Attention will be given to the challenges of working with complex issues and the sometimes-multifactorial nature of addressing tobacco dependence. Practical solutions to aid patient consultations, including developing rapport, eliciting barriers and working with resistance, will be offered.

Professor S John Wort is a Consultant in Pulmonary Hypertension at the Royal Brompton Hospital and Professor of Practice at Imperial College, London. Following completion of a chemistry degree at the University of Oxford, he studied medicine in London and completed a PhD at Imperial College, London in 2002 investigating the role of endothelin-1 in autocrine regulation of vascular smooth muscle proliferation. Research interests include the role of inflammation in pathogenesis of pulmonary vascular remodelling, congenital heart disease PAH and PH associated with chronic lung disease. He has recently completed his term as Chair of the National Pulmonary Hypertension Physicians' Committee in the UK.

ABSTRACT PRIZES
IMPROVING QUALITY AND EXCELLENCE IN PATIENT CARE

1) Clinical nurse specialist (CNS)-led optimisation of the asthma biologic service in a severe asthma centre

[1]C Whitfield, [1]S Kerley, 1C Eames, [1]E Rayala-Montaniel, [1]J McCreery, [1]P Cook, [1]H M Haitchi, [1]R J Kurukulaaratchy, [1]P Dennison, [1]H Rupani. [1]University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom.

Background

Asthma biologics are effective at reducing exacerbations, hospitalisations and oral steroid use. Over the last few years an increasing number of biologics have become available for use and widened the patient population eligible for them.

Most biologics are administered 4-8 weekly, indefinitely. In our centre patients would continue to attend for all their doses. Therefore, very quickly our clinic capacity was reached, both in terms of nursing time as well as clinic rooms, resulting in long waits to start treatment.

Aim

Optimise the biologics pathway in order to reduce the time taken to start biologics.

Methods

Phase 1:

1) Patients were moved to 'homecare' (biologic is delivered to the patient's home and they self-administer treatment) after having received the first 2 doses of their biologic injection on-site.
2) During the first 2 visits they received education about the biologic and instruction on self-administration.
3) We set up a telephone clinic to contact patients after their third dose to review their progress and answer any questions.
4) Almost 50% of patients with severe asthma are on maintenance steroids (mOCS) when started on biologics. We created a structured steroid weaning protocol and a virtual CNS-led steroid weaning clinic. Steroid weaning was started when patients attended for their second dose and then progressed through this clinic.

Phase 2:

1) We allocated 4 sessions for biologic injections, allowing the CNS to focus on biologics and not be distracted by other clinical activity, thereby increasing capacity.
2) A pharmacy technician supported the CNS deliver the clinics (patient questionnaires, adherence discussions, optimising inhaler technique).

Consecutive patients approved for a biologic in 2018-2019 (pre-homecare set up, n=65), 2021-2022 (Phase 1, n=54) and 2023 (Phase 2, n=20) were compared.

Results

Presented in Figure 1.

Discussion

A CNS-led biologics pathway has reduced the waiting time to start biologics in our centre, allowing timely initiation of biologics and earlier clinical benefit. Not needing to travel to our centre for each dose has reduced disruptions to our patient's lives and travel related carbon footprint. Moving forward, we have identified the need for additional administrative support to help book patients in.

Figure 1: Impact of optimising the biologics service. Overall, significant reduction in time taken to start a biologic (p<0.001) and reduction in exacerbations experienced while waiting (p<0.001)

2) The introduction of a clinical nurse specialist (CNS) steroid weaning clinic for patients with severe asthma on maintenance oral corticosteroids

[1]E Graham, [1]C Eames, [1]W Soe, [1]L Fox, [1]O Corn, [1]C Whitfield, [1]S Kerley, [1]E Rayala-Montaniel, [1]P Cook, [1]R Kurukulaaratchy, [1]HM Haitchi, [1]P Dennison, [1]H Rupani. [1]University Hospital Southampton, Southampton, United Kingdom.

Introduction

National registry data shows that 50% of patients with severe asthma are on maintenance oral corticosteroids (mOCS). The systemic side effects of corticosteroids start developing with as little as 1g of lifetime prednisolone exposure and result in both morbidity and mortality. Our severe asthma centre covers a large area and patients travel long distances to attend. Our aim was to optimise steroid weaning in this patient group.

Methods

We developed a structured steroid weaning protocol delivered through a virtual CNS clinic (2-4 weekly reviews). When required patients attended for biomarker assessment. Retrospective data was reviewed for 60 patients to compare steroid exposure for 12 months pre and post clinic set-up. Results are presented as median (IQR) unless otherwise specified.

Results

The mean(±SD) age was 52(±12) years and 42/60(70%) were female. In the 12 months pre clinic referral, median cumulative prednisolone dose was 4.6g per patient. The mOCS dose at first clinic review was 11(10-20)mg reducing to 5(3-9.5)mg after 12 months (p<0.0001).

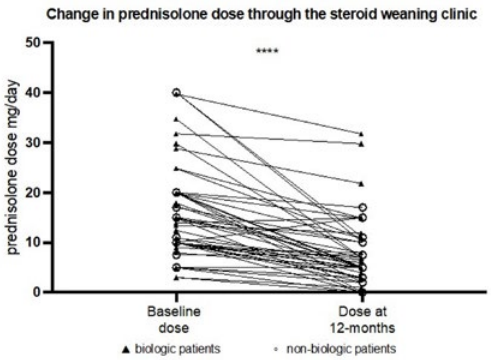
For the 22 non-biologic patients (37%): baseline maintenance dose was 10(10-20)mg reducing to 5(2-10)mg after 12 months (p<0.0001). ACQ was 2.66(2.50-3.30) at baseline and 2.50(1.16-3.29) at 12 months. At 12 months, 15/22(68%) either weaned off mOCS completely or weaned to adrenal dose/awaiting cortisol (n=10, dose≤5mg). 4/22(18%) are continuing steroid weaning, 1/22(5%) started a biologic and 2/22(9%) were discharged due to lack of patient engagement.

For the 38 biologic patients (63%): baseline mOCS was 14(10-20) mg reducing to 5(5-9)mg after 12 months (p<0.001). ACQ was 3.33(1.83-4.33) at baseline and 2.50(1.50-3.50) at 12 months (p<0.05). 21/38(55%) either weaned off mOCS completely or weaned to adrenal dose/awaiting cortisol (n=18, dose≤5mg). 14/38(37%) are continuing weaning and 3/38(8%) unable to wean further due to patient engagement or symptom burden.

Overall, 32/60(53%) have missed at least one telephone appointment. 7/60(12%) had delays in weaning whilst awaiting local cortisol results.

Conclusion

Our CNS steroid weaning clinic has successfully reduced steroid exposure in both the biologic and non-biologic cohort. Whilst biologics are effective steroid-sparing agents, patients require multi-disciplinary input and structured support to enable steroid weaning. Further improvements will focus on reducing missed appointments and delays in cortisol testing.



3) Developing a regional hub-and-spoke model for volumetric assessment of indeterminate pulmonary nodules supports efficient and effective management of pulmonary nodule pathways

[1]P Ratnakumar, [1]K Sabarwal, [2]C Stephenson, [2]A Rhodes, [3]J Derbyshire, [3]K Morris, [3]J Burchill, [2]O Orhan, [4]A Devaraj, [5]R Lee, [1]E Mayer, [4]JK Quint, [1]S Sheard, [1]S Bloch. [1]Imperial College Healthcare NHS Trust, London, United Kingdom; [2]Kingston Hospitals NHS Foundation Trust, Kingston, United Kingdom; [3]Royal Marsden Partners; West London Cancer Alliance, London, United Kingdom; [4]Royal Brompton & Harefield Hospitals, London, United Kingdom; [5]The Royal Marsden Hospital NHS Foundation Trust, London, United Kingdom.

Background

Indeterminate pulmonary nodules (IPNs) are a growing cohort, with a reported prevalence of up to 53% within screening cohorts, or 13% in non-screening populations(1).Effective management is key for efficient discharge, reduction of anxiety for patients, and early detection and treatment of cancerous nodules.

Whilst the British Thoracic Society (BTS) guidelines recommend volume measurements for more efficient management, technical and resource constraints mean that this is not always available. Within the West London Cancer Alliance (WLCA) group, a 2019 survey demonstrated that only 2 of 10 NHS Trusts regularly had access to volumetry software.

A regional pilot was set up to:

- develop a protocol for a hub-and-spoke
- evaluate usage (patient numbers, outcomes, qualitative feedback)
- measure pathway costs

Two 'hub-and-spoke' models were set up, with 5 participating hospitals. The pilot ran for 12 months, with a cap of two referrals per week per hub. Modelling was used to evaluate cost and capacity impact.

Results

In total,47 patients were referred (55 nodules evaluated). Mean nodule diameter was 8.1mm (IQR 6-9.75, range 5-14mm). Mean volume was 300mm3.

Table 1 summarises overall outcomes.

Cost data was derived from National Tariff documents (2021/22 financial year). Where surveillance was shortened to 1 year through volumetry, total cost per patient was £581: a cost saving of £316 compared to a two-year pathway. This results in actual savings of £11,481 per 50 patients, and yearly savings of £31,200-£43,200, to a maximum of £82,000 in full service. A return capacity of 195-270 additional clinic and scan slots (up to 810 if discharged at baseline) could be generated.

Discussion

Our pilot demonstrates viability and acceptability of a hub-and-spoke model for volumetry. Feedback highlighted benefits of widening access and earlier discharge, with key limitations being administrative capacity to ensure streamlining. Overall, this proof-of-concept study improves early discharge of patients with IPNs regionally, with associated cost and capacity benefits to Respiratory services.

References

1. Larici AR, Farchione A, Franchi P, Ciliberto M, Cicchetti G, Calandriello L, et al. Lung nodules: size still matters. EurRespirRev.2017 Dec31;26(146):170025.

Table 1: Overall referral question and outcomes for referrals for volumetry via the hub-and-spoke pathways.

Referral question	Outcome	Number of patients	Number of nodules
Need for upgrade	Upgrade advised	4	4
Request for discharge	Discharge advised	32	38
Request for discharge	Ongoing surveillance recommended	4	5
Request for discharge	Volumetry not possible (segmentation failed)	4	5
Request for discharge	Other*	3	3
Totals		**47**	**55**

4) Improving oxygen prescribing compliance – a Trust wide approach

[1]D Peat, [1]K Prior. [1]Lancashire Teaching Hospitals NHS Trust, Preston, Lancashire.

Background

Oxygen is the most commonly used drug within acute medical care worldwide. There is evidence to suggest that its use can be attributed to harm and even death if not delivered in line with appropriate prescription guidance[1]. This is more likely in those with underlying respiratory disease. In May 2022 at Lancashire Teaching Hospitals NHS Trust (LTHTr) 59% of patients on oxygen had a valid oxygen prescription in place. The aim of this project was to increase oxygen prescription compliance to over 80%, with documentation of safe oxygen saturation target range for all patients on admission to hospital.

Method

A field was placed on all clerking proformas asking clinicians to indicate a target oxygen saturation range. Once this was completed an automatic prescription for oxygen was generated in the Trusts Electronic Prescribing and Medicines Administration function (ePMA). The prescription allows variable device and flow rate depending on patient requirement. This covers all areas of the hospital including ITU and non-invasive ventilation. A multidisciplinary approach including pharmacist, nursing and medical staff was adopted, using continuous improvement methodology supported by the trust's quality improvement team. The auto prescribing function went live in July 2022.

Results

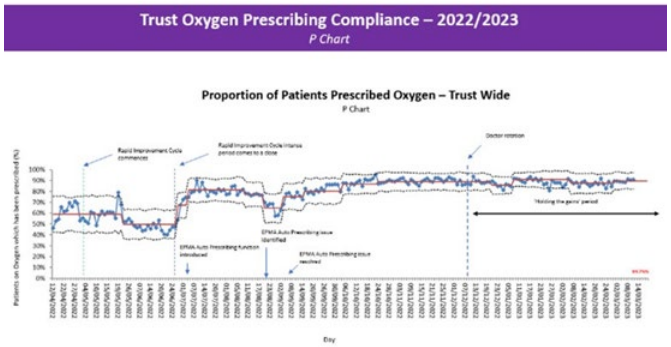
Prior to initiation in July 2022, 49.7% of patients had defined oxygen target saturations with a valid oxygen prescription trust wide. This increased over a period of 10 days to 81.7%, overall increase of 31.5%. Since implementation this has remained stable with current compliance showing that 89.7% of patients have oxygen prescribed with documented target saturations.

Conclusion

Adding an additional mandatory field to the electronic medical clerking proforma, for target oxygen saturations, with subsequent auto prescribing of oxygen on admission has contributed to a significant increase in oxygen prescribing compliance trust wide, with clear documentation of target oxygen saturations. We continue to assess the safety and outcomes of this.

Reference:

Institute of Health Economics (2016) *Oxygen Therapy in Acute Care Settings Retrieved* from **evidence.nhs.uk**



5) Respiratory-run lymph node biopsy service

[1]R Nixon, [1]M Khan, [1]H Emms. [1]Royal Devon University Healthcare, Exeter, UK.

Introduction

Respiratory medicine has a large interventional skill component. One of the curriculum items during training is lymph node biopsies. The provision of this service by respiratory departments varies between hospitals and radiology are frequently performing this diagnostic service for our patients. We set out to develop a lymph node biopsy service for our 2-week wait (2ww) referral service at the Royal Devon and Exeter Hospital and compared this to the previous set-up, where lymph node biopsies were done by radiology.

Methods

We reviewed a 5-month period (Period 1: June 2022-October 2022) before the respiratory lymph node biopsy service was set-up with a 5-month period (Period 2: November 2022-March 2023) post its setup. We identified patients who were seen in 2ww clinic and reviewed the diagnostic yield, time to procedure from referral, time to diagnosis from first appointment and time to treatment initiation from first appointment for those who were deemed to have required a lymph node biopsy for cancer diagnosis.

Results

A total of 14 patients were identified, 7 for Period 1 and 7 for Period 2. All samples taken by both radiology and respiratory teams revealed lymph node tissue, 3 were benign in the radiology and all were malignant in the respiratory group. Time to test was 19.1 (13.8-24.4) days in the radiology group and 1.7 (1.0-2.4) days in the respiratory group, $p<0.001$. Time to diagnosis was 25 (19-31) days in the radiology group and 9.3 (6.2-12.4) days in the respiratory group, $p=0.002$. Time to treatment was 47.5 (35.3-59.7) days in the radiology group vs. 23 (15.3-30.7) days in the respiratory group, $p<0.05$.

Conclusion

With interventional radiology offering an ever more complex array of procedures, the service can clearly become overwhelmed. Providing a respiratory-run lymph node biopsy service expedites diagnosis and treatment for lung oncology patients. This project highlights the benefits of developing such a service. As is the case for any new service, there are challenges to consider. However, improving patient care requires innovation and trainees should aim to acquire these skills to continue to improve and transform their departments as they become senior clinicians.

6) "This hospital is near my house": successfully establishing a local paediatric long-term ventilation service to improve families' quality of care

[1]PFM Robinson, [1]A Collins, [1]N Hirst, [1]H Sivachandra, [1]A Moran, [1]J Thomas. [1]Queen Elizabeth Hospital, Lewisham and Greenwich NHS Trust, London, United Kingdom.

Introduction

The paediatric population requiring long-term ventilation [LTV] doubled last decade to 2382 (2019) [Barker, ArchDisChild, 2023]. The majority are treated in local hospitals, without formally funded care. Balancing the Pressures' top three recommendations were to commission and standardise local LTV care, create local patient databases, and establish a multidisciplinary team (MDT) providing integrated care [CEPOD, London, 2020]. At Queen Elizabeth Hospital (QEH) we implemented these recommendations aiming to improve our LTV patients' care.

Methods

From 2019 paediatric ward staff were trained and cared for tracheostomy or non-invasively ventilated (NIV) patients. Local LTV patients were identified and added to a database. An MDT of named consultants, ward, A&E and community link-nurses plus physiotherapist was created. Patients attended monthly LTV clinics meeting the team and touring the facilities. Joint clinics and MDT meetings with tertiary LTV centres were established. Standardised proformas were created.

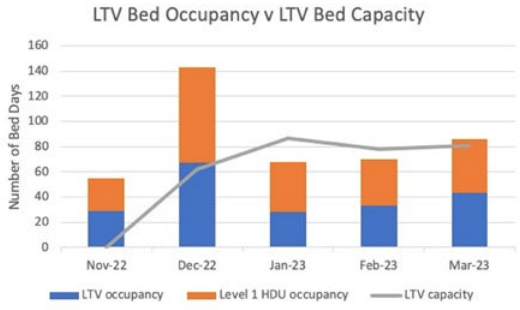
In November 2022 NHSE winter-pressure funded a three-bedded paediatric level 2 high dependency unit (HDU) and MDT recruitment: practice-development/specialist nurse, physiotherapist, speech and language therapist, occupational therapist, and dietician. Admission criteria prioritised local LTV patients stepping-down from tertiary centres for weaning, discharge-planning or caregiver training. Beds were reserved for local LTV patients presenting acutely unwell to the paediatric emergency department requiring admission but not intensive care. Excess capacity was used for patients requiring acute NIV or level 1 HDU care. Metrics from November22-March23 were compared to the previous 12 months' baseline.

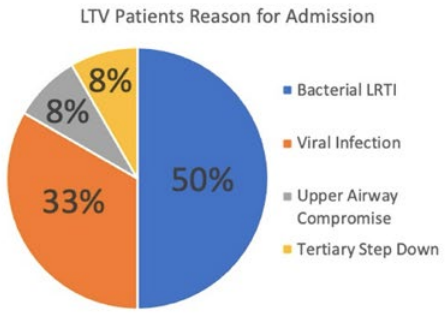
Results

In November2022-March2023 15 LTV patients were admitted (three-quarters with acute respiratory tract-infections) totalling 200 LTV inpatient days (350% increase). Funded LTV bed capacity increased from zero to matching demand. A&E waits decreased from 11.3 to 5 hours, and LTV transfers out due to capacity from 5 to 0. Families fed-back that the proximity facilitated family life and respite, the continuity provided by the local team built their confidence and they appreciated the integrated MDT approach. All 15 would bring their child to QEH if acutely unwell and feel confident to leave them on the ward rating their child's care as 8.1/10.

Conclusion

We created a funded local paediatric LTV service that matched demand and improved care.





LTV Admitted Patient Demographics

	n (%)
LTV Patients	15
Tracheostomy	4 (27)
CPAP	7 (47)
BiPAP	8 (53)
ALOS (A&E) (hours)	4.8
LTV ALOS (days)	12
Transfers Out	0

LTV Young Person and Carers' Feedback

Proximity facilitates family life
"It's better here because my sister can visit and it's easier for my parents to swap"
"Closer to our house – I can nip home for a shower, I can see my other kids"
[At the tertiary centre] "he couldn't see his dad or brothers and sisters for 3 weeks and he cried for them every day"

Continuity builds confidence
"I always see the same doctors and nurses here and they are funny"
" I like the smaller team because I've got to know everyone here – sometimes so many different consultants and doctors is more overwhelming. I really trust the team here"

Respite
"My daughter was able to have home leave (her birthday and Christmas) after spending so long in hospital which wasn't possible in [tertiary centre] ... meant so much to our family"
"His carers that know him are allowed to come in -that gives me break at night"

Integrated Multidisciplinary Team
"Helpful to come to the clinic so we met everyone and saw the place before he needed admission"
"Since new physiotherapists have started they get more physiotherapy here" [than at tertiary centre]

Figure 1. Long-term Ventilation Patients: Bed Occupancy v Capacity, Reason for Admission, Demographics and Feedback. (November 2022-March 2023).

ABSTRACT PRIZES
IMPROVEMENTS IN RESPIRATORY EDUCATION AND TRAINING CATEGORY

1) Improving indwelling pleural catheter (IPC) management - excellent results from the development of a short course for hospital and community staff

[1]E Harvey, [1]I Johnson, [1]R Mercer, [1]L Bishop, [1]R Asciak.
[1]Queen Alexandra Hospital, Portsmouth, United Kingdom.

Introduction

IPCs are a mainstay in malignant pleural effusion management. Whilst inserted in hospital, ongoing care is led by district nurses (DN). There is increased pressure to shift focus of patient care to the community. Lack of communication between community and hospital teams leads to disjointed care. Local DN training on IPC management is variable, early specialist input can reduce rates of complications and improve patient care. Therefore, an IPC management course was developed aiming to optimise communication and support between the hospital and community, improve training, whilst giving confidence with ongoing IPC management and ultimately improving patient care and quality of life.

Methods

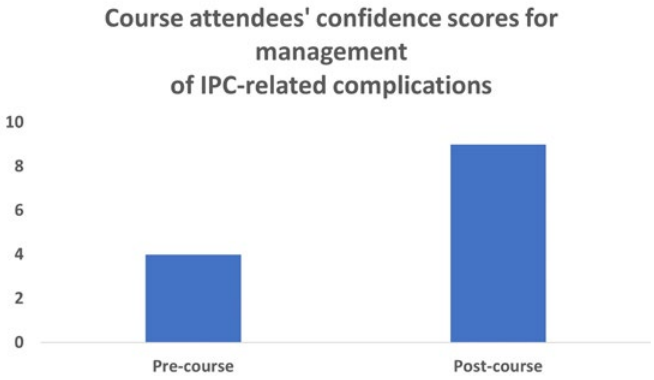
A course was developed targeting DNs, hospital-based nurses and health-care assistants who manage IPCs. The course was led by the hospital pleural team. It included information on IPCs such as indications, complications, case discussions and practical guides to troubleshooting IPCs, as well as a hands-on practical session with equipment demonstration and drainage of a real patient's IPC. Attendees were provided details on who to contact for equipment issues as well as how to contact the hospital team with IPC-related issues.

Results

Attendees had a wide variety of experience with IPCs. Feedback demonstrated significant improvement in attendees' confidence with IPC complications management (mean pre-score 4/10, post-course 9/10, 125% increase see Figure 1). Feedback was positive related to the course quality and learning gained. Instructors on the course also learnt from the discussions and interactions throughout the course, with better understanding of the challenges of managing IPCs in the community, and it was felt that the course helped to build a professional relationship with colleagues in the community.

Discussion

The IPC management course demonstrated a clear increase in attendees' confidence with managing IPC complications. A closer working relationship between hospital and community teams was a positive secondary outcome. There is already quicker and easier communication between teams after the course, allowing earlier review of patients with IPC-related issues, aiming to improve patient care and experience. This short course model can be applied to other areas creating further opportunities to improve patient care by working together to develop services.



2) New BTS framework for face-to-face thoracic ultrasound training – deliverable with a regional approach

[1]M Bhatnagar, [2]K Conroy, [2]B Prudon, [1]L Tanner, [1]I Forrest, [1]AE Stanton. [1]Newcastle upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, United Kingdom; [2]North Tees and Hartlepool Hospitals NHS Foundation Trust, North Tees, United Kingdom.

Introduction

The British Thoracic Society (BTS) has recently produced a framework that sets out minimum standards for locally delivered face-to-face Thoracic Ultrasound (TUS) training to help learners achieve Primary TUS Operator Status. We present evaluation data from piloting of courses aligned to this framework in the North-East of England.

Methods

Half-day "sister" courses advertised jointly and regionally were conducted in Newcastle and North Tees. Each course had 18 delegates comprising StRs, IMTs, physician associates and specialist nurses. Delegates were divided into groups of 3 and rotated around a 6-station carousel every 25 minutes, each facilitated by one of a multidisciplinary faculty. 5 stations had patients demonstrating pleural pathology as outlined in the learning outcomes of the Primary TUS Operator pathway (1). A sixth used a simulation mannequin with a bland effusion and a selection of images. Feedback was collected from the delegates at the end of the course.

Results

34/36 delegates completed feedback. 28/34 (82%) delegates felt that the course was excellent. Majority of the delegates had previously used TUS (97%), although most had done this under direct supervision (20/34, 59%). Most delegates (29/34, 85%) did not have an agreed CiP level for TUS training. The majority of delegates felt that the courses allowed them to have met each of the 5 objectives fully (Table 1). The time spent at each station was felt almost uniformly to be "about right" (33/34, 97%). The overarching theme for suggestions for improvement was provision of pre-course reading material.

Conclusions

Face-to-face TUS courses, aligned to the BTS framework, can be delivered successfully using a collaborative approach in a regional setting. We would anticipate the recent availability of BTS on-line learning material to enhance benefit to learners from future courses. We hope the BTS framework will facilitate successful face-to-face TUS training throughout the UK.

References

1 AE Stanton, A Edey, M Evison et al. British Thoracic Society training standards for thoracic ultrasound (TUS). BMJ Open Resp Res 2020; doi:10.1136/bmjresp-2019-000552

Table 1: Frequency of feedback responses detailing how well courses allowed delegates to meet learning objectives.

Learning Objective	Responses for how well course allowed delegates to meet objective (n / 34, %)			
	Fully	Reasonably but not fully	A little bit	Not at all
Differentiate between a simple and complex effusion.	23 (68%)	10 (29%)	1 (3%)	**
Differentiate pleural fluid from "solid" pathology such as pleural thickening.	21 (62%)	13 (38%)	**	**
Classify more complex effusions, including identifying features suggestive of an exudate.	18 (53%)	12 (35%)	4 (12%)	**
Characterise septations and loculations.	21 (62%)	11 (32%)	1 (3%)	1 (3%)
Recommend an appropriate site for aspiration or drainage in both simple and complex effusions, including effusions less than 5cm depth.	21 (62%)	13 (38%)	**	**

3) The introduction of a novel pulmonary nodule pathway service and pulmonary nodule navigators

[1]MZ Khan, [1]A Talwar, [1]R Benamore, [1]M Tsakok, [1]A Campbell, [1]J Park, [1]A Moore, [1]J Yates, [1]A Falolu, [1]C Ridgeon, [1]Y Duong, [1]A O'Mahony, [1]G Ghidoni, [1]F Gleeson. [1]Oxford University Hospitals NHS Foundation Trust, Oxford, United Kingdom.

Background

In November 2022 we established a Pulmonary Nodule Service (PNS) managed by a team of nodule navigators (nurses) collaborating with radiologists, respiratory physicians, and the Nodule MDT.

To ensure this was a safe and reliable service, we designed a novel educational package for the navigators to learn triaging the referrals, using a clinical simulation platform1 that allows users to review diagnostic quality CT scans via a web browser and assessed on their interpretation accuracy.

The package comprises three parts to be performed sequentially:

A teaching module which provides users a step-by-step framework when reviewing CT scans, to assess nodules by considering the type, size, stability or growth, risk of malignancy and how frequently to undertake surveillance.

A training module, requiring review of seventy-five CT scans to evaluate along with relevant clinical information.

An assessment module, requiring review of seventy-five cases where answers are not provided to the navigators to simulate clinical practice, on deciding without knowing the immediate result. At the end of the assessment module the navigators are provided with their score of the total numbers of nodules correctly managed. To be allowed to practice unsupervised, all seventy-five assessment cases must be answered correctly, and the module performed annually.

Aims

Navigators to do triage read, saving chest physician and radiologist time, and enabling more timely decision making about ongoing management of nodules referred to the PNS.

Key performance indicators are:

3) A comparison of the accuracy in diagnosis of the nodule navigators compared to the decision made on review at the nodule MDT.
4) Number of benign nodules that are discharged at the point of referral based on morphology and or volumetry measurements.
5) The time from CT scan date to making decision about nodule management.
6) The cost savings associated with above points.

Future directions and conclusions

The use of formally trained and assessed navigators (nurses) to manage patients/nodules referred to clinical nodule service has not to our knowledge been used previously, despite non-medical first scan readers having been shown to be of value in Lung Cancer Screening. We believe that using web based formal teaching, training and assessment will enable upskilling of the nursing workforce, will improve the patient experience by reducing unnecessary scans, speed up their care and reduce costs.

References:

1. https://www.raiqc.com

4) The Inhaler Games – a novel way to take your breath away

[1]AY Yip, [1]AS Sundaram, [1]JG Gates. [1]Kingston Hospital, London, United Kingdom.

Introduction

The importance of inhaler therapy in the management of chronic respiratory conditions is undeniable. Yet knowledge around and engagement with the subject of inhalers (including clinical indications, prescribing and efficacy factors) amongst junior doctors remains extremely poor; highlighting the wider issue of poor engagement in this subject area. In view of this, we developed the novel and innovative ward-based Inhaler Games, with the main objective of delivering critical and relevant information to participants in a fun, rewarding and safe environment; aiming to increase engagement with inhaler prescribing and confidence. The games involved the distribution of Inhaler Collectors cards detailing key information such as the mechanism of action, indications, technique and doses, with QR codes linked to additional audio-visual resources. Points were awarded, with prizes distributed across the rotation in response to engagement actions ranging from identifying inhalers on ward rounds to teaching patients effective inhaler technique.

Methods

Anonymous survey-based study (pre and postintervention surveys using scaled questions) to evaluate the impact of this gamification technique on confidence and knowledge levels amongst junior doctors with regards to recognising, prescribing, and educating patients around inhaler therapy.

Results

Amongst the cohort sampled, 3.26/10 (n=19) (1=Unconfident, 10=Very confident) was the average 'confident with inhalers' score before the introduction of the inhaler games, with a 9.16/10 (n=6) average 'confident with inhalers' score after the games. Of those sampled, only 53.33% identified that they had previous teaching around the subject of inhalers prior to commencing their respiratory rotation, despite an average score of 8.93/10 (n=15) (1=Unimportant, 10=Very Important) in response to our question on perception of the importance of inhaler knowledge.

Conclusion

The Inhaler Games significantly improved the confidence of junior doctors with regards to recognising, prescribing, and educating patients on inhaler therapy, with survey responses supporting the value of this knowledge with regards to patient outcomes and care. Despite responses indicating inhaler knowledge to be of high importance, baseline knowledge and confidence levels remain poor. Therefore, engagement in inhaler education with initiatives like this are fundamental in improving educational and clinical outcomes.

5) The evolution of "NIVSIM": a simulation-based education (SBE) intervention to improve the quality of care delivered for patients receiving acute non-invasive ventilation (NIV)

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Introduction

Simulation Based Education (SBE) achieves set learning objectives through replication of, and immersion in, real world experiences. NIVSIM is a SBE course exploring technical skills and human factors aspects of NIV care. NIVSIM highlights current NIV recommendations and participants experience common scenarios. NIVSIM has been delivered in partnership across North Central London since 2019 and has evolved to meet changing educational demands. Iterations included embedding Quality Improvement (QI) approaches (2020/1).

Methods

Prospective data collected before and after NIVSM between 2019-2022 were evaluated using the Human Factors Skills for Healthcare Instrument (HuFSHI) and an author developed self-assessment of NIV skills, knowledge and confidence (NIVSIM Self-Assessment Tool). During 2020/1 prospective data were collected on: treatment escalation plan, NIV prescription completion rates and door to mask time, as key indicators of QI.

Results

87 participants attended: 58%(n=37) nursing, 25%(n=16) Allied Health Professionals, 15%(n=10) Medics and 2 (n=1) other. 85%(n=55) of participants were female. There was an overall improvement in HuFSHI score (median diff 5, 95%CI 2 to 7.5, p=0.001) and NIV Self-Assessment Tool score (median diff 3, 95%CI 2 to 4.5, p <0.001).

Data from the QI project included in 2020/1 is displayed in Table 1.

Discussion

NIVSIM is an interprofessional learning (IPL) event, demonstrating modest improvements in HuFSHI and NIV Self-assessment Tool scores. Since 2020, allocation of places aimed to be even across the multi-disciplinary team, which we postulate further enhances learning with increased changes in HuFSHI and NIV Self-assessment Tool scores reported here compared to previous results. Embedding QI approaches during latter courses was logistically challenging, but highlighted need for improvement in acute NIV care. Data generated useful benchmarking metrics and has shaped further QI cycles. Delivering NIVSIM across a local geographical footprint allowed sharing of best practice and increased collaboration for improving patient care, which we consider to be essential based upon both BTS NIV audit results and NCEPOD report.

NIVSIM encourages life-long learning and improves knowledge, skills and confidence in managing acute NIV thereby advancing quality of care.

Future plans

360degree videos are currently in development to increase access to NIVSIM with alternative models of delivery being designed.

	Local QI project data 2020/1 %	National average from BTS NIV audit 2019 %
Treatment escalation plan completed prior to NIV commencement	79.5	83
NIV prescription completed prior to NIV commencement	55	Not reported
Door to mask time		
0-2	20.5	36
0-4	22.3	57
0-6	36.6	70
0-12	60.6	87
0-24	73.7	100
>24	100	N/A

6) Ward-based simulation training: an effective way to increase clinician confidence in managing respiratory emergencies

[1]JA Mitchell, [1]L Allan. [1]NHS Highland, Inverness, United Kingdom.

Introduction

Clinical simulation provides a valued approach to clinical education within respiratory practice globally.(1) Increasing workload risks creating a detrimental effect on teaching and training within the NHS.(2) The Respiratory Inter-professional Skills and Knowledge through Simulation (RISKS) project aims to improve participant confidence with emergency respiratory presentations through brief ward based simulation sessions with minimal disruption to clinical commitments whilst promoting personal reflection on clinical and non-technical skills.

Methods

Junior clinicians in the respiratory unit (n=18) were invited to simulation sessions ran by a respiratory registrar and physician associate. Following a short handover, participants were asked to assess a simulated patient during a rapidly evolving respiratory scenario followed by a dedicated period of debrief. Simulation and debrief were designed to take no more than 15 minutes. Participants provided anonymous written feedback and undertake reflective self-assessment. Quantitative and qualitative data was analysed by the faculty.

Results/Discussion

A 59% increase in participant confidence was demonstrated following completion of the practical session and reflection; with 100% of attendees agreeing that both clinical scenario and debrief were useful.

It is clear RISKS is an effective method of session delivery with scope for upscaling. Further sessions will be delivered, with involvement of multi-disciplinary team colleagues, targeted to areas where clinicians feel less confident, improving skills and promoting effective teamwork. It is important that this project remains flexible in nature, allowing for congruency between participant requirements and stakeholder set training outcomes.

Conclusion

RISKS has proved to be an effective and appreciated method of session delivery, appropriate to meeting the needs of participants. Sessions will continue on a regular basis as part of induction for rotating team members and aim to involve a variety of members from the multidisciplinary team, with focus on scenarios which relate to individualised areas of uncertainty within clinical practice. This method of delivery has the potential to deliver quality training in an effective and efficient manner.

References

West, A, and Parchoma, G. (2017) 'The practice of simulation-based assessment in respiratory therapy education', Canadian Journal of Respiratory Therapy, 53(1), pp.13-16.

General Medical Council. (2022) 'National Training Survey Results 2022'

EXHIBITORS' INFORMATION

ACTION FOR PULMONARY FIBROSIS

Stand number: 22

We are Action for Pulmonary Fibrosis, a patient-led charity working to stop pulmonary fibrosis (PF). Our growing community of patients, families, carers, researchers and healthcare professionals is striving to ensure everyone affected by PF has a better future.

What we do:

- Directly fund research to develop new treatments and stop PF.
- Support people who are living with or affected by PF.
- Raise awareness of PF and improve access to the highest quality care through campaigning and education.
- Fundraise to fuel our mission.

Email: **info@actionpf.org**
Website: **https://www.actionpf.org/**

THE ASSOCIATION FOR RESPIRATORY TECHNOLOGY AND PHYSIOLOGY (ARTP)

Stand number: 16

The Association for Respiratory Technology and Physiology (ARTP) are the professional society focused on physiological measurement and interpretation within the field of respiratory medicine for the UK. We work alongside partner organisations and societies to produce position papers, national guidelines and standards for good practice. Our primary focus is the performance of respiratory/sleep physiological measurement, and the delivery of lung function and sleep services.

The ARTP links with the BTS and other organisations around the world to deliver global standards in respiratory healthcare involving respiratory technology and physiology (such as Assembly 9 of the European Respiratory Society).

Email: **admin@artp.org.uk**
Website: **https://www.artp.org.uk/**

THE ASSOCIATION OF CHARTERED PHYSIOTHERAPISTS IN RESPIRATORY CARE (ACPRC)

Stand number: 18

The Association of Chartered Physiotherapists in Respiratory Care promotes health and best practice in respiratory physiotherapy for the benefit of all. With over 1800 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 2 journals a year which is delivered electronically to every one of our 1800+ members.

Email: **secretary@acprc.org.uk**
Website: **www.acprc.org.uk**

THE ASSOCIATION OF RESPIRATORY NURSES (ARNS)

Stand number: 15

The Association of Respiratory Nurses (ARNS) was established in 1997 as a nursing forum to champion the specialty respiratory nursing community, promote excellence in practice, and influence respiratory health policy. ARNS also works to influence the direction of respiratory nursing care.

Email: **info@arns.co.uk**
Website: **https://arns.co.uk/**

ASTRAZENECA

Stand number: 19

Astrazeneca is a global, science-led biopharmaceutical company that focuses on the discovery, development and commercialisation of prescription medicines, primarily for the treatment of diseases in three therapy areas- Oncology, Cardiovascular, Renal & Metabolism and Respiratory. For more information, please visit www.astrazeneca.co.uk.

Email: **Info@Astrazeneca.com**
Website: **www.astrazeneca.co.uk**

BD

Stand number: 4

BD is one of the largest global medical technology companies in the world and is advancing the world of health by improving medical discovery, diagnostics and the delivery of care. The company develops innovative technology, services and solutions that help advance both clinical therapy for patients and clinical process for health care providers. BD has 70,000 employees and a presence in virtually every country around the world to address some of the most challenging global health issues. BD helps customers enhance outcomes, lower costs, increase efficiencies, improve safety and expand access to health care.

Website: **www.bd.com**

BRONCUS MEDICAL INC / UPTAKE MEDICAL

Stand number: 11

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.

Email: **sales@broncus.com**
Website: **www.broncus.com**

CHIESI

Stand numbers: 13 & 14

Based in Parma, Italy, Chiesi Farmaceutici is an international research-focused biopharmaceuticals group with over 85 years' experience in the pharmaceutical sector operating in 30 countries, employing around 6,000 people. Chiesi develops and markets innovative therapeutic solutions in respiratory health, rare diseases, and specialty care. The company's mission is to improve people's quality of life and act responsibly towards both the community and the environment. As a certified B Corp since 2019, Chiesi is part of a global community of businesses that meet high standards of social and environmental impact. Chiesi Limited is headquartered in Manchester employing over 400 people.

Contact: **contact.uk@chiesi.com**
Website: **https://www.chiesi.uk.com/**

THE GREATER MANCHESTER ASBESTOS VICTIMS SUPPORT GROUP (GMAVSG)

Stand number: 21

The Greater Manchester Asbestos Victims Support Group (GMAVSG) was established as a charity in 2006. Our three staff provide free face-to-face advice on benefits and compensation to people with asbestos diseases in the Greater Manchester area. We are experts in the niche industrial injuries schemes. We also run a support group for people who have lost a loved on to asbestos disease, and another group for patients with mesothelioma. We are members of the Asbestos Victims Support Groups Forum UK, and through the Forum we campaign on issues such as sustainable funding for mesothelioma research.

Email: **info@gmavsg.org**
Website: **www.gmavsg.org**

GSK

Stand numbers: 1 & 2

GSK has been a leader in respiratory for more than 50 years, helping patients with respiratory disease better manage their condition. Working in collaboration with the scientific community, GSK remains at the cutting edge of scientific research into innovative medicines with the aim of helping patients' symptoms and reduce the risk of their disease.

For further information for UK HCPs, please visit
https://gskpro.com/en-gb/
NP-GB-RS-WCNT-220003, September 2022

Website: **https://gskpro.com/en-gb/**

INSMED

Stand number: 17

We are on a mission to transform the lives of patients living with serious and rare diseases.

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.

Website: **https://insmed.com**

INSPIRE, THE INTEGRATED RESPIRATORY RESEARCH COLLABORATIVE

Stand number: 9

INSPIRE is the UK's research network for trainees and early career researchers including AHPs in respiratory medicine. INSPIRE encourages and supports engagement in clinical research by early career clinicians in respiratory medicine. We aid the development of high quality research and facilitate delivery at national scale. Our first two studies are nearing completion, with the second round currently being developed. To get involved with INSPIRE please see the website below or contact us for more information.

Twitter: **@INSPIREresp_uk**
Email: **info@inspirerespiratory.co.uk**
Website: **www.inspirerespiratory.co.uk**

IT'S INTERVENTIONAL

Stand number: 20

It's Interventional 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 continue our support of the BTS Summer Meeting. Formally UK Medical, we introduced the concept of IPC into the UK in 2006, our focus for this event will be The Aspira™ Drainage System. Aspira™ is the natural evolution of IPC and provides new methods of catheter implant, as well as innovative home drainage options designed to improve patient comfort and quality of life. The It's Interventional 'In-Home' service, serves to facilitate a seamless transition into the community and ensure continuity of care for all patients. Product innovation and the highest levels of service and support are central in ensuring your Aspira patients receive the best possible healthcare, why not put us to the test.

Please visit us at stand no: 20 or visit **www.itsinterventional.com** for more information on Aspira™.

Tel: **0114 268 8880**
Email: **hello@itsinterventional.com**
Website: **www.itsinterventional.com**

THE PULMONARY REHABILITATION SERVICES ACCREDITATION SCHEME (PRSAS)

Stand number: 5

The Pulmonary Rehabilitation Services Accreditation Scheme (PRSAS) was launched in April 2018. The aim of the programme is to improve the quality of pulmonary rehabilitation services throughout the UK.

The Pulmonary Rehabilitation Services Accreditation Scheme (PRSAS) is run by the Royal College of Physicians (RCP). The Pulmonary Rehabilitation audit, also managed and delivered by the RCP, is part of the National Asthma and COPD Audit Programme (NACAP) and is commissioned by the Healthcare Quality Improvement Partnership (HQIP).

The two programmes are designed to align with each other to support pulmonary rehabilitation services to measure and improve the quality, and outcomes, of the care they provide to patients.

Email: **pulmrehab@rcp.ac.uk**

Website: **www.prsas.org**

STIRLING ANGLIAN PHARMACEUTICALS

Stand number: 3

Based in the UK, Stirling Anglian is committed to medicines optimisation. It has sourced and developed a portfolio of medicines to help the NHS curb waste – across a range of conditions that currently place unnecessary and avoidable pressure on NHS resources. At a time when there is such pressure on the NHS to reduce costs, we believe we offer a real and practical solution.

We work closely with stakeholders across the NHS to identify real-world problems and develop value-based solutions that support the delivery of efficient and cost-effective healthcare.

Website: **www.stirlinganglianpharmaceuticals.com**

THE SURVEILLANCE OF WORK-RELATED AND OCCUPATIONAL RESPIRATORY DISEASE (SWORD)

Stand number: 10

The Surveillance of Work-related and Occupational Respiratory Disease (SWORD) is the longest running constituent scheme of The Health and Occupation Research (THOR) network. THOR is the main source of data and evidence used by HSE to develop and evaluate the policy around respiratory disease caused by work.

Since 1989 SWORD has collected over 29,000 cases of work-related respiratory disease from respiratory consultants across the UK. Participating consultants report to SWORD on a monthly basis or for one randomly allocated month per year and are offered opportunities to collaborate with THOR on research projects as well as receiving quarterly newsletters and annual reports on THOR data.

For more information please visit our website www.coeh.man.ac.uk/u/sword or contact Laura Byrne (Research Administrator for SWORD) via email laura.byrne@manchester.ac.uk.

Email: **laura.byrne@manchester.ac.uk**
Website: **www.coeh.man.ac.uk/u/sword**

Join BTS Now!

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 Thoracic Ultrasound Online Learning Resources
- 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 maternity/paternity 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 further information, membership categories, rates, or to join online, 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.

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