Spoken Presentation:

Evaluating NTM Screening Prior to Long-Term Azithromycin in COPD: A Service Evaluation

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The British Thoracic Society recommends avoiding macrolide monotherapy if non-tuberculous mycobacteria (NTM) are identified, due to the risk of resistance complicating future NTM treatment. This service evaluation assessed whether appropriate NTM screening was conducted before initiating long-term azithromycin in COPD clinic.

Records of 220 patients were reviewed; 38 (17.3%) were prescribed azithromycin for frequent exacerbations (18 females, 20 males; mean age 65). Mean FEV_1 was 1.27 L. Most were ex-smokers (n=35); all received optimal therapy.

Only 10 patients (26.4%) underwent complete NTM screening. 12 (31.5%) had one or two TB culture results; 16 (42.1%) had none. Only 8 patients (21%) had TB culture results available when azithromycin was first considered. Treatment was delayed in 8 cases (mean 239 days) to await results; two were hospitalised during this period. 29 patients (76.3%) started azithromycin before sample results were available; 14 (48.3%) never submitted samples. One-third did not tolerate or benefit from treatment. No patients without NTM screening developed NTM lung disease on follow-up.

These findings highlight suboptimal screening and support the need for structured pathways enabling early sputum sampling and timely treatment. Further research should clarify the true risk of macrolide resistant NTM to help balance prompt care against long-term antimicrobial stewardship.

Spoken Presentation:

The Lung Cancer Pathway CNS: Roles and Benefits

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Introduction: In the UK, lung cancer is the third most common cancer and the most common cause of cancer death. (1) The Optimal Lung Cancer Pathway was introduced by NHS England in 2018 with the aim of achieving a streamlined pathway to achieve an earlier diagnosis. (2)

The role of the Lung Cancer Clinical Nurse Specialist (LC-CNS) within this pathway is to risk stratify patients at the front end of the pathway to ensure only those patients who are high risk for lung cancer are referred for a CT scan.

Method: Patients who have smoked or are current smokers with a normal CXR are contacted by the LC-CNS, usually within 1-working day, to complete a risk stratification using either a Q Cancer Score or Liverpool Lung Project (LLP) Risk Model version 3.

Results: 56.12% reduction in CT scans since December 2023, which is 2553 less CT scans. Total saving of £201,687. Time to outpatient appointment improved to 4 days, previously 18 days. Reduction in Respiratory Consultant time by 25 hours per week. Improvement of 28-day faster diagnosis standard to 87.8%. 4549 patients risk stratified between December 2023 and August 2025. No missed lung cancers since the service began.

Spoken Presentation:

Enhancing Asthma Identification: Advocating for an Updated FEV1/FVC Ratio in Secondary Care Setting

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Background: This project evaluates whether baseline spirometry values (FEV1 and FEV1/FVC ratio) could identify patients who might benefit from reversibility testing, potentially reducing the need for airway challenge tests in asthma diagnosis. At University Hospitals of Leicester, a fixed 70% FEV1/FVC ratio and FEV1 <80% predicted are used to diagnose airway disease.

Methods: We retrospectively analyzed data from 243 patients who underwent PC20 airway challenge testing between 2019 and 2024, including age, BMI, gender, spirometry values, bronchodilator response, FeNO levels, and eosinophil counts.

Results: No significant differences in mean FEV1 and FVC were observed between positive and negative PC20 results. However, the FEV1/FVC ratio was lower in positive cases (77.78%) compared to negative ones (81.68%). Positive PC20 patients had higher symptom scores, BMI, and eosinophil counts. Despite higher bronchodilator response completion in positive cases (96%), no significant post-bronchodilator FEV1 change was noted.

Conclusions: Our findings suggest that individualized spirometry interpretation using lower limit of normal (LLN) or Z-scores, which account for age, sex, height, and ethnicity, could improve asthma diagnosis and reduce reliance on invasive tests. Further research is needed to assess the clinical impact of these measures in refining asthma management.

Poster:

Acute asthma management in the era of electronic healthcare: improving the efficiency of clinical audit

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Introduction

The national respiratory audit program (NRAP) provides a framework to assess performance in managing acute asthma and informs payment of best practice tariffs.

Objectives

We aimed to improve the efficiency of the NRAP adult acute asthma (AA) audit by maximising algorithm-based data collection from electronic health records (EHR).

Methods

Clinical audit methodological development study at a single hospital site (Glenfield Hospital, Leicester). Datafields were screened to identify where algorithm-based data extraction was feasible. Custom-coded tools were developed and processed. Data that could not be extracted from EHR were manually collected. Data quality monitoring informed iterative revisions.

Results

Algorithms effectively extracted demographics, arrival/discharge details, physiological parameters (except peak flow) and specialist review data but performed poorly for medication at discharge. Asthma care bundle completion, a key performance indicator (PI), could not be extracted electronically. Duplicate prescriptions and the large number of inhaled steroid devices posed a challenge for algorithms designed to extract prescribing data. Manual data collection was resource-intensive.

Conclusions

Use of algorithms improved the efficiency of data collection for the NRAP AA audit. Planned modifications to standardise data collection for key PIs will further enhance efficiency and performance. Examples of good practice may be helpful for other sites.

Poster:

Feasibility and Safety of Single-Port Thoracoscopic Pleurodesis with Same-Site Indwelling Pleural Catheter Insertion for Management of Malignant and Unexplained Exudative Pleural Effusion

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Kettering General Hospital

Background:
Thoracoscopic talc pleurodesis is widely used for managing malignant pleural effusions (MPE). Combining it with same-site indwelling pleural catheter (IPC) insertion may support early discharge, outpatient care, and improved pleurodesis rates. However, real-world evidence on this single-port approach remains limited.

Methods:
This retrospective single-centre study included all patients undergoing single-port thoracoscopic pleurodesis with same-site IPC insertion from January 2019 to December 2024. Patients were followed for up to six months. Data were collected on demographics, malignancy status, IPC duration, pleurodesis success (defined as IPC removal without effusion recurrence), and complications.

Results:
A total of 194 patients underwent the procedure for malignant or unexplained exudative effusions. The cohort included 130 males (67.0%) and 64 females (33.0%), with a mean age of 69 ± 11.5 years. Known malignancy was present in 37 patients (19.1%). For IPC dwell time ≤182 days, mean duration was 34.4 ± 34.8 days (median 20; IQR: 14–47). IPCs remained >182 days in 11 patients (5.7%), and 18 (9.3%) died with IPCs in situ. Complications were low: one surgical emphysema (0.5%) and 10 IPC-related events (5.2%)—mainly pain and infection (40% each).

Conclusion:
This single-port approach is feasible and safe, with low complication rates and favourable short-term outcomes.

Poster:

Improving NIV door to mask time – benefits of an electronic dashboard in assessing innovation

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Through analysis of our NRAP COPD data, we identified a lack of compliance with the BTS quality standards for non-invasive ventilation (NIV) initiation, which advises the initiation of NIV within 60 minutes of a blood gas result or within 120 minutes of arrival to hospital with an acute presentation.

A quality improvement team was developed including MDT members from both our Respiratory Support Unit (RSU) and ED aiming to improve our 'door to mask' time, however we recognised the need for real-time data to understand if our change ideas result in improvement. With support from our business intelligence unit, we developed an innovative electronic dashboard, populated from the daily audit tool completed on our RSU.

Interventions have included an education programme in ED, the development of a new NIV prescription and initiation pathway including a respiratory nurse bleep to support the ED team with NIV set up.

The dashboard data shows that the median 'door to mask' and 'blood gas to mask' times for patients set up within 24 hours of admission between May and July 2025 are currently 3.8 hours and 2.3 hours, recognising the need for ongoing work to improve our NIV outcomes.

Poster:

The Incidence of Chronic Thromboembolic Pulmonary Disease and Chronic Thromboembolic Pulmonary Hypertension after an Acute Pulmonary Embolism: A 3-Year Experience of an Ambulatory Pulmonary Embolism Service

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Introduction:
Chronic thromboembolic pulmonary disease (CTEPD) is a sequelae of acute pulmonary embolism (PE) which can cause long-term exercise limitation and is potentially curable.

Aims:
To evaluate the incidence of CTEPD and chronic thromboembolic pulmonary hypertension (CTEPH) after an episode of acute PE.

Methods:
Retrospective observational study which included all new patients reviewed in the PE clinic over 3 years (Jan'21–Dec'23), with a minimum 12-month follow-up following the index PE.

Results: 146 patients were included in the study after screening 370 (no PE identified and inadequate data were excluded). Median age was 61 years (IQR 50.7–73.2), 54.8% (80/146) were provoked PE, 66% stayed on long-term anticoagulation (95/146) and, 3.9% (2/51) developed recurrence of PE within one year after stopping anticoagulation. The incidence of CTEPD, CTEPD without CTEPH and CTEPH was 12.3% (18/146), 11.6% (17/146) and 0.7% (1/146) respectively. Out of the 71/146 managed on the ambulatory PE pathway, the incidence of CTEPD without CTEPH was 7%(5/71) and none of them developed CTEPH1. History of previous PE was associated with increased recurrence of PE after stopping anticoagulation (p=0.002). On binary logistic regression, none of the studied independent variables significantly affected the incidence of CTEPD/CTEPH. Conclusion: The incidence of CTEPD after an acute PE remains high, even in ambulatory subgroup. Although CTEPH incidence was low, a review prior to discontinuing anticoagulation should be warranted.

Ref: 1.Howard et al.Thorax:July 2018.doi:10.1136/thoraxjnl-2018-211539

Poster:

Improving the bronchoscopy training experience for East Midland Trainees

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NUH

Flexible bronchoscopy (FB) is a core competency for respiratory trainees, but many struggle to achieve competence due to reduced procedural opportunities, changes in diagnostic pathways, and rota pressures.

To address this, we developed a region-wide half-day FB simulation course in the East Midlands, delivered between 2024 and 2025. All respiratory trainees were invited. Nine sessions were held, with feedback from 23 participants.

Of these, 52% were junior registrars and 22% were ST6 or above. 83% can perform FB under supervision and were predominantly first-year registrars. Only 17% reported being able to perform FB independently.

Feedback was uniformly positive. 95% of trainees found the session extremely useful and would recommend it to others, in particular in the first year of training. Common themes from qualitative feedback included the benefit of a "safe and relaxed environment to practice and learn endobronchial navigation" and an "excellent session to build confidence."

Following the success of these pilot sessions, the deanery will now offer bronchoscopy simulation training to all new respiratory registrars at the start of training. This early exposure aims to build confidence, enhance procedural skills, and improve patient outcomes.

Poster:

Characteristics of patients developing iatrogenic pneumothorax due to CT guided lung biopsy

Syed Hasan Mustafa Rizvi

Ammarah Yasmeen, Syed Kalam, Nadeem Iqbal, Ahmad Ussaid, Mohammad Rahman, Elisa Smith, Jonathan Bennett, Sanjay Agrawal, Muhammad Majid, Syed Mohammad, Rajini Sudhir

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Introduction:
CT-guided lung biopsy(CTGB) is a minimally invasive procedure that helps with histology aiding with treatment. Pneumothorax is the most common complication. We present important characteristics of patients that developed iatrogenic pneumothorax in our center.

Methods:
Retrospective analysis of all requests for CTGB lung from 1/01/2023-31/12/2023 was conducted. Patients undergoing procedure and developing pneumothorax were identified and common characteristics recorded.

Results:
173 patients underwent CTGB, 53(30.63%) developed iatrogenic pneumothorax. Majority(n=34, 64.15%) were managed conservatively. 19 had interventions(35.84%). 44 developed small(83.01%), 5 had large(9.43%) with 4 moderate pneumothoraxes(7.54%).
23 patients with iatrogenic pneumothorax had emphysema(43.39%) whilst 30 did not have emphysema(56.60%). The mean age of patients developing pneumothorax was 71years.
33(62.26%) were male and 20 females(37.73%).
The most common position for nodules in patients developing pneumothorax was RUL(n=18) followed by RLL(n=14), LLL(N=10), LUL(N=9) and RML (N=2). Majority lesions were >3cm(N=39), followed by 1-2cm(N=12). In 5 patients, lesions were crossing fissure whilst it was not crossing in 43 patients. FEV1 was >80% in 24 patients and between 50-80% in 16.

Conclusion: Iatrogenic pneumothorax is a well recognized complication of CTGB which can lead to invasive interventions. We provided an overview of the common risk factors and characteristics of patients that developed iatrogenic pneumothorax from our cohort.

Poster:

Boosting Respiratory Education: A Quality Improvement Project Using Weekly Bitesize Emails for Resident Doctors and Advanced Clinical Practitioners

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Rotational resident doctors (RD) and advanced clinical practitioners (ACPs) are valued members of the respiratory multi-disciplinary ward team. However, educational opportunities are limited due to service demands and short lengths of rotation. This QI project explored whether weekly bitesize email teaching could improve their confidence and knowledge in managing common respiratory conditions. Stakeholder survey in March 2025 (n=10) showed that 77.8% felt teaching was insufficient, and 90% were interested in weekly email-based education. From April 2025, ten weekly bitesize emails were distributed, covering common respiratory conditions, with content, resources, portfolio guidance, and audit suggestions. Feedback in May (n=4) and July 2025 (n=10) evaluated the intervention. In both cycles, 100% of respondents found the emails useful and reported improved knowledge. In Cycle 3, 100% felt it improved their patient care, and 90% found the study cards helpful (added after Cycle 2 feedback). Whilst our QI had self-reported measurements and was small in scale, the project did show good initial feedback from RDs and ACPs. This framework for bite-size learning is suited for busy ward environments and rotational staff. Further work should focus on objective outcome measures and sustainable delivery— there is potential to scale this framework via regional respiratory education networks.

Poster:

Outpatient CT guided lung biopsy service at Glenfield Hospital- A busy tertiary care hospital

Syed Hasan Mustafa Rizvi

Elisa Smith, Ammarah Yasmeen, Syed Kalam, Ahmad Ussaid, Nadeem Iqbal, Mohammad Rahman, Thisarana Wijayaratne,Jonathan Bennett, Sanjay Agrawal, Muhammad Majid, Syed Mohammad and Rajini Sudhir

Glenfield hospital

Introduction:
CT-guided lung biopsy (CTGB) is a vital tool to obtain histological diagnosis. This procedure has its own risks and of those pneumothorax is the most common which can lead to hospital admissions. We present an overview of this service at our hospital.

Method:
Retrospective analysis of all requests for CTGB lung from 1/01/2023 till 31/12/2023 was conducted.
Patients developing pneumothorax were identified with their management.

Results:
282 patients were requested to have CTGB -244 (86.52%) requests were from outpatient settings vs 34 (12.05%) from IP settings. It was no longer required in 22 patient(7.80%). 227 patients attended the procedure but it was not done in 27 patients due to various reasons. 53 patients (30.63%) developed pneumothorax out of 173 patients that underwent CTGB. Out of these 34 patients (64.15%) were managed conservatively and 19 had interventions (35.84%). 14 patients had aspiration and 4 had intercostal chest drain-ICD. 1 patient had ICD after aspiration. 2patients were already inpatients at the time of pneumothorax. 42 patients were managed on ambulatory pathway (82.35%) and 9 admitted (17.64%). Mean length of stay was 3.44 days.

Conclusion:
CTGB a routinely requested diagnostic tool is associated with pneumothorax that can lead to interventions and admissions.

Poster:

Assessing the PET requests for patients presenting to Rapid Access Lung Cancer clinics

Syed Hasan Mustafa Rizvi

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Introduction: PET CT scans are essential for patients considered for curative intent treatment with lung cancer. Inappropriate requests puts financial strain on NHS exposing patients to unnecessary tests. We audited the appropriateness of our PET scan requests.

Methods: Patients from 25-11-24 and 17-1-25 who underwent PET scans from lung cancer pathway were included. Indications for PET-CTscan requests were compared with recommendations of NHS England.

Results: 53 patients had PETscans. In 47 patients it was clinically indicated (88.67%). It was not clinically indicated in 6(11.32%). The majority of patients were in Group 1(n=33, 62.3%) of NHSE SWAG cancer alliance diagnostic algorithm. Group 3 was second largest(n=8, 15.1%) followed by Group 2(n=6. 11.3%).

The most common indication was non-metastatic lung mass(n=22, 46.8%) followed by solid-nodule 8mm or more and Brocks >10%(n=10, 21.2%). Other indications were enlarging lesion(n=7, 14.9%), persistent sub-solid nodule with solid component >5 mm(n=6, 12.7%) and radiologist/MDT recommendation(n=2, 4.2%).

The most common reason for inappropriate PET requests was for patients with radiological evidence of metastatic disease(n=3, 50%), other reasons were 1 each for ground-glass nodule, inflammatory changes and 8mm nodule with low Brocks score (n=1, 16.6%).

Conclusion: PET CT scan is an important investigation that should be reserved for patients with clear clinical indications.

Standalone Presentation:

Impact of early versus delayed intrapleural fibrinolytics on pleural infection outcomes: an observational study

YASMIN RAHIM

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Background:
The MIST2 trial demonstrated that intrapleural fibrinolytics improve outcomes in pleural infection, but the optimal timing of administration remains uncertain. This study compares early (within 24 hours) versus delayed fibrinolytic therapy following chest drain insertion.

Methods:
This retrospective observational study included consecutive patients with pleural infection treated at a single centre between November 2018 and October 2024. Inclusion criteria were clinical signs (fever or raised inflammatory markers) and pleural fluid features (pH <7.2, positive gram stain, or bacterial growth). All patients received intrapleural Alteplase (10 mg) and DNase (5 mg) once daily for up to three days. Patients treated before November 2021 (Group 1) received fibrinolytics after drainage failure, while those treated after (Group 2) received early therapy. Outcomes included mortality, surgical referral, hospital stay, chest tube duration, and lung function at four months.

Results:
Of 95 patients, Group 1 (n=36) and Group 2 (n=59) had similar mortality rates (5.6% vs. 5.1%). Group 2 had shorter hospital stays (7.7 vs. 10.9 days), significantly reduced chest tube duration (4.4 vs. 6.2 days, p=0.015), and better FVC at 4 months (99.4% vs. 90.5%, p=0.031). Surgery within 3 months was less frequent in Group 2 (1.7% vs. 8.3%).

Conclusion:
Early fibrinolytic therapy may improve recovery without increasing surgical risk or mortality.