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Prof Shu Hashimoto has no conflicts of interest.

**Introduction**

QVA149 is a novel inhaled once-daily dual bronchodilator containing a fixed-dose combination of the long-acting β₂-agonist (LABA) indacaterol and the long-acting muscarinic antagonist (LAMA) glycopyrronium, in development for the maintenance treatment of COPD. This study evaluated the superiority of QVA149 once daily in terms of efficacy over fluticasone/salmeterol twice daily in patients with COPD.

**Methods**

In this 26 week, multicentre, double-blind, double-dummy, parallel-group study patients aged ≥40 years with moderate-to-severe COPD (post-bronchodilator FEV₁/FVC <0.7 and FEV₁ ≤80% to <80% predicted), no history of exacerbations in the previous year and smoking history ≥10 pack-years, were randomised (1:1) to receive QVA149 110/50 µg (via the Breezhaler® device) or fluticasone/salmeterol 500/50 µg (via the Accuhaler® device). The primary efficacy end point was standardised FEV₁ AUC0–12h at Week 26. The pre-dose trough FEV₁ on Week 12 and 26 and peak FEV₁ on Day 1, Week 12 and Week 26 were also measured.

**Results**

A total of 523 patients (35.1% on inhaled corticosteroids use) were randomised [QVA149, n=259; fluticasone/salmeterol, n=264; male (70.9%); mean age: 63.3 years; mean post-bronchodilator FEV₁ 1200 mL, 140 mL, respectively; all p<0.001]. Pre-dose trough FEV₁ was significantly (p<0.001) higher for QVA149 compared with fluticasone/salmeterol at Week 12 and 26 (LAM treatment difference=90 mL and 100 mL, respectively; p<0.001). The LSM treatment difference for peak FEV₁ was also statistically significant for QVA149 compared with fluticasone/salmeterol on Day 1 (70mL), Week 12 (150mL) and Week 26 (150mL), all p<0.001.

**Conclusion**

QVA149 once daily provided superior bronchodilation at all time-points compared to fluticasone/salmeterol twice daily and showed clinically meaningful improvements in lung function for a sustained period of 26 weeks. In moderate-to-severe COPD patients without a history of exacerbations in the previous year, LABA/LAMA dual bronchodilation with once-daily QVA149 proves a superior alternative to twice-daily fluticasone/salmeterol.

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**Lung cancer investigation, treatment and survival**

**Background**

Surveillance of pulmonary nodules aims to identify early-stage lung cancers where radical therapy can offer cure. Interval CT scans track nodule characteristics with Fleischner criteria commonly used in an attempt to standardise care. There remains debate regarding the applicability of Fleischner guidance in populations of UK patients that can differ substantially from those included in existing studies that define the Fleischner recommendations.

**Objectives**

- Audit compliance of pulmonary nodule follow up with Fleischner Guidelines.
- Compare local outcomes with those used to create Fleischner guidelines.
- Compare local compliance with published compliance.

**Methods**

Patients referred to a specialist respiratory nurse service for pulmonary nodule surveillance since 2008 (including patients already under surveillance) with opportunity for 2 years of completed follow-up were included with retrospective review of the nodule database/electronic records and imaging. Patients were risk stratified according to nodule size and Fleischner risk category (e.g. smoking).

**Results**

111 patients under surveillance were identified of whom 56 were Male and 55 Female with median age 67 (54–91) years. 67 were solitary and 44 were multiple. Patients were stratified to Low- and High-risk groups according to main nodule size: (L1–4 or H1–4 respectively). Each group included; High-risk: H1 (<4mm)10, H2 (>4–6mm) 25, H3 (>6–8mm) 19 and H4 (>8mm) 36 cases and Low-risk: L1 (<4mm) 0, L2 (>4–6mm) 5, L3 (>6–8mm) 4 and L4 (>8mm) 3 cases.

89 patients completed standard follow-up and were discharged. Positive scans included Lung tumours (3) - (two underwent lobectomy), Aspergillosis (1); Rectal carcinoma (1) - discovered by non-Fleischner abdominal CT. Surveillance was discontinued for: Patient choice/co-morbidity (8); Nodule resolution (8); Not documented/lost (6).

**Conclusion**

Fleischner guidelines were well adhered to and were also utilised where their application is less well defined e.g. development of a new nodule during follow-up prompted either re-imitation or more commonly continued/modified trajectory of Fleischner - an area notably not well covered in current guidance. Furthermore principals of Fleischner recommendations were applied to multiple nodules but management of such patients is often not as easily followed as solitary nodules.