

FRONTIER Collaborative Working Output Report

A collaborative working project between Chiesi Ltd and Hull University Teaching Hospitals NHS Trust (now part of NHS Humber Health Partnership)

Frontier (Finding the hidden millions: restoration of early COPD diagnosis for Hull Lung Health Check participants to optimise treatment and improve outcomes).

Since the launch of this project, Lung Health Checks were changed to be called Lung Cancer Screening , this output report will refer to this updated programme name.

The Executive summary for this project can be found:

<https://www.chiesi.uk.com/collaboration/our-projects/frontier-hull>

Background

Diagnosing COPD is a challenge in the UK for various reasons including lack of public awareness about the disease, and difficulty in identifying and confirming COPD. These challenges were further exacerbated during the COVID-19 pandemic when available screening programmes using the current diagnostic standard of care, spirometry (as part Lung Cancer Screening), were stopped. In many areas, they have never recovered.

Project description

FRONTIER Hull was a collaborative working project between Chiesi and Hull University Teaching Hospitals NHS Trust (now part of NHS Humber Health Partnership), to understand the impact of addressing this gap and share learnings with the NHS about potential approaches towards targeted screening.

Project objectives

The intended objectives of this collaborative project are to:

- Identify Hull Lung Cancer Screening (formerly called Lung Health Check) participants at high risk of having COPD based on symptoms, and/or imaging findings.
- To invite Hull Lung Cancer Screening participants at high risk of having COPD to attend a one-stop diagnostic clinic comprising symptom assessment and objective measurement of airflow limitation.
- Initiate evidence-based pharmacological and non-pharmacological interventions for newly diagnosed COPD patients with the goal of improving short, medium and long-term health outcomes.

Project Outcomes

Data routinely collected during the Hull Lung Cancer Screening Programme were used to successfully identify in excess of 4,000 people at high-risk of having undiagnosed COPD. People were considered high-risk based on the presence of consistent symptoms and/or having emphysema on low-dose CT, in the absence of an existing known COPD diagnosis. During the project, over 1,000 people were invited and attended a one-stop, COPD diagnostic clinic. Diagnostic assessment resulted in a high yield, with over 500 people newly diagnosed with COPD. All newly diagnosed patients were offered evidence-based inhaled therapy with eligible participants offered and, where consenting, referred for pulmonary rehabilitation and specialist stop smoking support.

Lessons learned

We demonstrated that it is both feasible and acceptable to identify people at high risk of living with undiagnosed COPD using Lung Cancer Screening Programme data and to invite them to attend a one-stop COPD diagnostic clinic. It was initially noted that there was a high rate of people not attending their appointment. However, this reduced dramatically following introduction of a reminder telephone call the day prior to their appointment date, during which an explanation was provided about the nature of and rationale for their appointment. People identified as having respiratory symptoms and/or emphysema on low dose CT had a high likelihood of having COPD and had a moderate symptom burden. Around 1 in 4 people with undiagnosed COPD had been treated for chest infections in the year before diagnosis. All COPD patients were offered guideline recommended COPD treatment with almost all accepting and remaining on treatment after 1-year.

A detailed summary of project findings and insights will be prepared for scientific publication.