BREATHE
Best Respiratory Evaluations And Treatments in Healthcare Efficiency

Chiesi

Helping patient BREATHE – implementation of a clinical diagnostic spirometry pathway in primary care

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BREATHE is a collaborative working project between Fuller and Forbes Healthcare Group and Chiesi Ltd with services provided by National Services for Health Improvement.

INTRODUCTION

One in four people with COPD wait more than five years for a diagnosis and one in eight wait more than 10 years[1].

The delays have further been exacerbated post-pandemic due to reduced diagnostic ability, resulting in significant waiting lists with potential for decreased quality of life, increased morbidity, and increased healthcare utilisation[1].

TargetCOPD showed a case-finding approach yielded increased COPD diagnosis, when compared to routine practice (4% vs 1%), showing a targeted approach can benefit an increased number of patients[2].

BREATHE is a collaborative working project involving Chiesi Ltd and 17 Practices within the Fuller and Forbes Healthcare Group across England.

The first phase of the BREATHE project aimed to implement a clinical pathway in primary care for patients waiting on COPD diagnostic spirometry.

METHODS

- Phase 1 of the collaboration was undertaken from November 2024 to December 2024.
- Patients identified were those who were either currently on a list awaiting COPD diagnostic spirometry, or via 'case finder' searches described in figure 1.

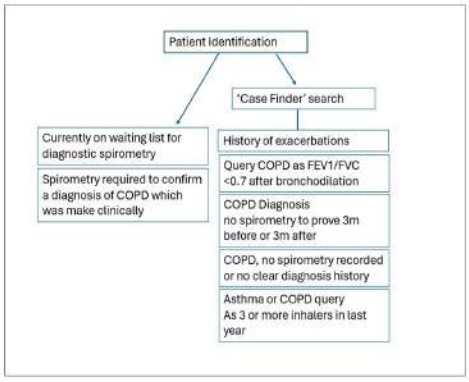

Figure 1

Identified patients were invited to attend a diagnostic clinic comprising of:

- Clinical assessment using LungHealth® Diagnostic spirometry and
- Spirometry (FEV_6; ArtiQ© AI spirometry) with post bronchodilator reversibility.

Patients were also offered a holistic review which provided referral for smoking cessation and pulmonary rehabilitation, if the patient wished to take up the offer.

RESULTS

- 103 patients (mean age 60 (SD 15) years; 41% male) were reviewed, with a COPD diagnosis rate of 39.8% (41/103).
- Those diagnosed with COPD were statistically significantly more likely to be older (mean age 68 (SD 10) v 55 (SD 16) years; $p<0.05$), male (54 v 30%; $p<0.05$) and have a greater degree of breathlessness (mMRC score>=2: 27% v 10%; $p<0.05$) compared with those not diagnosed with COPD (n=62).

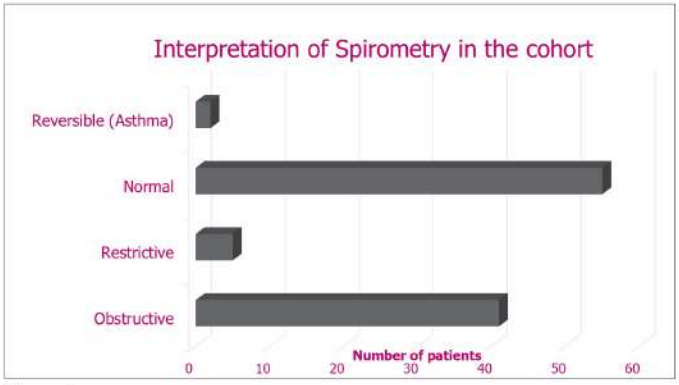

Figure 2

- Of those patients diagnosed with COPD, 56% were in GOLD Stage 1, 32% in GOLD Stage 2 and 12% were in GOLD Stage 3.

CONCLUSION

- Phase 1 of the BREATHE collaboration has demonstrated the feasibility of utilising a bespoke case finding pathway in primary care to enhance diagnosis rate of COPD.
  - We demonstrated a diagnosis rate of 39.8% compared to 4% in the TargetCOPD study.
- With the new published 10-year health plan for England[3] states we can continue down our current path, making tweaks to an increasingly unsustainable model - or we can take a new course and reimagine the NHS through transformational change that will guarantee its sustainability for generations to come. This collaboration allows visualisation of those aspirations within the 10-year plan.
- This model also utilised AI spirometry, which could potentially allow different levels of healthcare staff e.g. healthcare assistants, to complete spirometry as part of a COPD diagnostic clinic. This ensures the correct skill mix of staff, allowing to utilise the staff available in the current NHS climate. This could offer a scalable solution to help tackle the spirometry backlog and find the missing millions.

REFERENCES

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NSHI National Services for Health Improvement
LungHealth
Fuller and Forbes Healthcare Group