









# Transformation of diagnostic pathways for COPD in primary care using N-Tidal: introducing the CORMORANT programme

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#### What is the problem?

- COPD needs prompt diagnosis for optimal management and treatment
- Currently spirometry is gold standard for diagnosis, but is unpleasant for patients, time-consuming and needs specialist training to perform and interpret, plus test-retest repeatability is poor and tester-dependent
- Delivery of spirometry in UK primary care is struggling to meet demand, leaving many individuals undiagnosed

Breathing out and trying to empty your chest made you cough, it made you lightheaded, it made you feel like you were going to pass out. And it took about 25-30 minutes.

With this new device, it actually was really pleasant. You just sat there and breathed normally into the machine, so you didn't have to try and push breath out to get the measurements.

Bev, recently diagnosed with COPD after waiting 3 years for spirometry

#### Could there be a solution?

- N-Tidal Diagnose<sup>™</sup> is a device that uses CO<sub>2</sub> waveforms recorded during relaxed tidal breathing with artificial intelligence algorithms to assess the likelihood of COPD
- As a five minute, easy-to-perform test, it could be used to support confirmation of or rule out a diagnosis of COPD and therefore it could offer an alternative to spirometry for primary care COPD diagnosis

But it requires evaluation in the field before rollout into realworld primary care – for patients, clinicians and NHS costs...

## ...introducing the CORMORANT programme

<u>COPD transformation of diagnostic pathways in primary care using N-Tidal</u>

 NIHR-funded Invention for Innovation (i4i) programme grant which started in July 2024







 Collaborative partnership co-led by the NHS, patients, industry, and academia



## Key programme objectives

- 1. Assess the current landscape of COPD diagnosis in UK primary care
- 2. Evaluate the diagnostic accuracy of N-Tidal Diagnose compared to spirometry in patients with clinical suspicion of COPD
- 3. Explore the barriers/facilitators of N-Tidal Diagnose integration in primary care
- 4. Understand the economic implications of introducing N-Tidal Diagnose in primary care

## How can you help?





Diagnostic study in primary care Health economic

analysis

We would **love** to hear from you if you might be interested in:

- Completing our clinician/stakeholder survey (or helping distribute it)
- Taking part in a clinician/stakeholder interview about COPD diagnostic pathways and how N-Tidal could fit
- Being a recruitment site for our diagnostic study if you perform spirometry in primary care

Please contact <u>cormorant@phc.ox.ac.uk</u>

patient survey and interviews

Mapping existing

pathways for COPD

diagnosis and potential

N-Tidal adoption

500 participants who are having spirometry for suspected COPD Assessing resource use and NHS impact to evaluate clinical and cost-effectiveness of N-Tidal

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