

Diagnostic Spirometry Hubs

Team Members: Natalie Janes, Lloyd Hambridge, Angela Andrews and Lisa Morgan, Aneurin Bevan University Health Board (ABUHB)
Contact: Natalie.Janes@wales.nhs.uk and lloyd.hambridge@wales.nhs.uk

Project Background:

90% of COPD and Asthma patients are diagnosed within their GP practice. The provision of diagnostic spirometry across Primary and Community Care was severely disrupted by the COVID-19 pandemic. Spirometry was suspended in these settings in line with National Guidance and as a result, alternative methods to perform diagnostic spirometry was required.

This project introduced diagnostic spirometry hubs across ABUHB to undertake spirometry and fractional exhaled nitric oxide (FeNO) testing, interpretation, confirm diagnosis and where necessary determine appropriate treatment and management pathways. Whilst also supporting the educational and training requirements for health care professionals.

Project Aims/Objectives:

The key aim was to address the backlog of patients awaiting diagnostic spirometry testing within Primary and Community Care Services to:

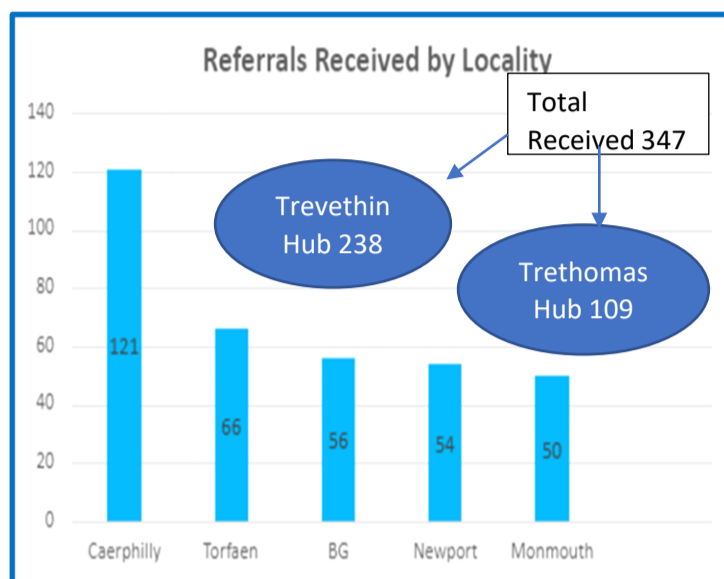
- Reduce waiting list/time to test;
- Improve treatment outcomes, ensuring prudent prescribing/appropriate medicines management;
- Reduce A&E attendance, OOH, GP, and secondary care service contacts;
- Provide services and care closer to home in line with 'a healthier Wales';
- Ensure Primary and Community health care professionals are appropriately trained, certified, and have the required competence to undertake spirometry.

Project Approach:

To ensure appropriate geographical coverage, two diagnostic hubs were set up in the North and South of ABUHB, operating 4 days a week.

The consultations were carried out by ARTP trained RGN/HCSW which allowed for comprehensive assessment, diagnosis, treatment, and management services.

Evaluation of the service was completed by collecting both quantitative and qualitative data. Patient satisfaction surveys allowed patients views of service and quality of care received to be collated, which supports continuous improvement methodology.



Project Impact:

- Provision of a prudent healthcare model has enabled patients to access specialist advice and services within Primary Care and Community settings, providing a more efficient service and shorter patient pathway.
- Detailed assessment and management of respiratory conditions completed targeting those with greatest need and diagnosis within a reduced timeframe compared to traditional models.
- Enhancement of the services that were previously available, providing future sustainability, and increasing capacity.
- Reduction in inappropriate referrals into specialist secondary care and consultant services, reducing costs to the NHS.

Key Conclusions:

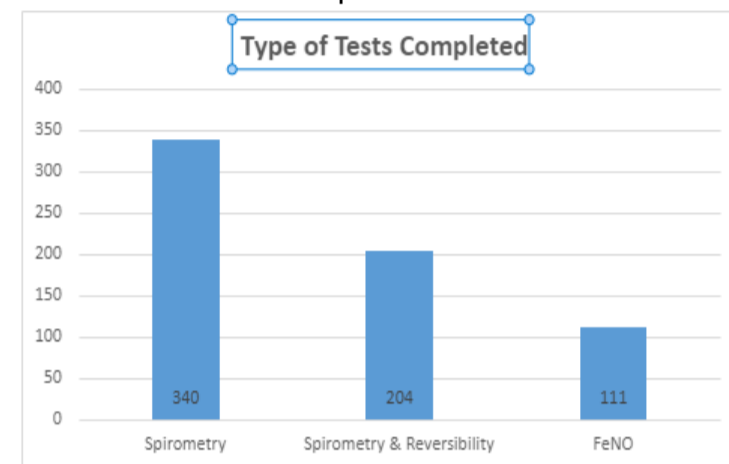
The development of the diagnostic spirometry hubs enabled patients to receive a timely, holistic respiratory assessment with accurate diagnosis and ongoing treatment management.

Patients with respiratory conditions have a significant impact on NHS care particularly during the winter period. Reduced waiting lists and improved access to services therefore reduce impact on hospital admissions by accurate early diagnosis and ongoing self management support.

Implementation of innovative new models of prudent service delivery, allowing easy access to patients for specialist advice whilst empowering them to look after their own health and well being will improve quality of life of patients with respiratory conditions within the community.

Project Outcome(s):

The diagnostic hubs in both the North and South afforded patients the opportunity to receive a diagnostic spirometry test during COVID-19 restrictions, supporting earlier diagnosis and onward care where required.



The developed model enabled improved capacity within secondary care and general practices, improving diagnosis, management, and treatment outcomes, which in addition supported practices to focus efforts on tackling the backlog of annual asthma and COPD reviews built-up during the pandemic.

- 347 risk stratified patients were reviewed of which 136 patients had a change in referral diagnosis. These patients were having significant symptoms affecting QOL.
 - 31 of these patients had an admission to hospital and 7 had admission to ITU in past 12 months
 - 104 patients had 2 more previous exacerbations in past 12 months.

Next Steps:

Due to time-limited funding the spirometry diagnostic hubs stopped at the end of August 2022 with spirometry services resuming within Primary and Community Care settings.

There continues to be insufficient numbers of ARTP trained staff across Primary and Community care, therefore training and mentoring of staff will continue with primary care respiratory nursing team support.

Future work will look at the development of symptom specific hub pathways in line with the "National Clinical Pathways" ambition of Welsh Government i.e. breathlessness hub.

