Royal College of Physicians | National Respiratory Audit Programme (NRAP)

NRAP Good Practice Repository – COPD

Glenfield Hospital

University Hospitals of Leicester NHS Trust

KPI3:

Spirometry result available.

Glenfield Hospital achieved:

86.5% - 2022-23*

***% of patients submitted to the audit.**

When we commenced the NRAP audit in 2017, only 30% of patients with COPD admitted to our hospital had spirometry supporting their diagnosis. With support from the RCP, we set about devising a quality improvement (QI) project. To keep us focussed we used a driver diagram so that each member of the team was aware of their role in the project.

Our processes to achieve good practice in KPI3:

Access to systems

Within our hospital we have several systems, and this proved to be a barrier to the team finding spirometry reports. We worked with our respiratory physiology department to access their systems whilst they transferred to using a more global one that we could all use.

We worked long and hard to gain access to community records and this has enabled us to find spirometry from GP records outside of the hospital.

Team commitment

The hospital medical team were used to diagnosing COPD from the clinical picture. Sometimes out-patient spirometry was ordered but sometimes the referral was overlooked. The diagnosis was then fixed into the GP record and inhalers prescribed-all difficult to reverse in the light of normal spirometry. Our team committed to ensuring a robust diagnosis and coding of 'likely' or 'possible' in the absence of spirometry. We were able to tell patients it was a provisional diagnosis and this would be discussed after the test result. We would provide inhaler training and advice to patients in the interim but would not include them in the audit until the diagnosis was confirmed.

Supporting evidence

We reviewed 200 patient records that had been referred for spirometry. Of those 110 had attended their appointment. Of the patients tested 60.9% (67 patients) were confirmed to have airflow obstruction; 39% (43 patients) did not have airflow obstruction (Figure 1).

Developing a system-wide pathway (attached)

We have developed a clear pathway (Figure 2) so that patients are diagnosed with COPD or included for spirometry testing if they have none.

We are now consistently achieving 90-95% attainment on KPI3 whilst ensuring patients are consistently referred for follow-up testing and review.

(Figure 1)

Ensuring a robust pathway for COPD diagnosis for people admitted to hospital with suspected COPD - a quality improvement project.

Clinch L, Hawksley Z, Houchen-Wooloff, L, Gardiner N, Evans R, Ward T

The diagnosis of Chronic Obstructive Pulmonary Disease (COPD) requires spirometric evidence of airflow obstruction. Yet, access to spirometry reports during hospital admissions is variable and as a result, patients frequently receive a clinical diagnosis of COPD in hospital without subsequent spirometry confirmation. This may result in inappropriate prescription of inhaled medications and failure to recognise other treatable pathology.

Aims:

- To increase referrals for out-patient diagnostic spirometry for patients admitted with suspected COPD.
- To review the outcome of spirometry testing.
- To investigate the use of inhaled medicines in those without airflow obstruction.

Methods

The COPD Specialist Nurses reviewed patients with a suspected diagnosis of COPD during their admission to hospital.

If spirometry was available, the nurses added this to the patient paper record.

If spirometry could not be located, an outpatient spirometry request was made. The nurses reviewed the outcome of spirometry referrals and scrutinised the inhaled medicines prescriptions of the cohort.

A pathway was created and medical staff were asked to diagnose as 'likely' or 'probable' COPD until the clinical diagnosis could be confirmed with post-bronchodilator spirometry.

Results

Sample size: 549 Period: April 2021 and November 2022.

Random selection: 200

Attended for spirometry: 110

Did not attend: 90

Confirmed airflow obstruction: 67 individuals (60.9%)

Airflow obstruction NOT confirmed: 43 individuals (39%)

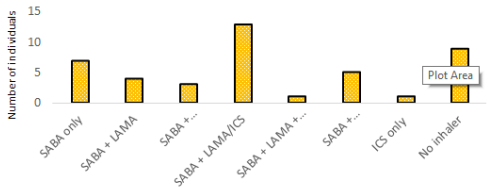


Figure 1: Inhaled medication prescriptions for individuals **without** spirometric evidence of airflow obstruction (n=43). SABA: Short acting beta agonist, LAMA: Long-acting muscarinic antagonist, LABA: Long-acting beta agonist, ICS: Inhaled corticosteroid

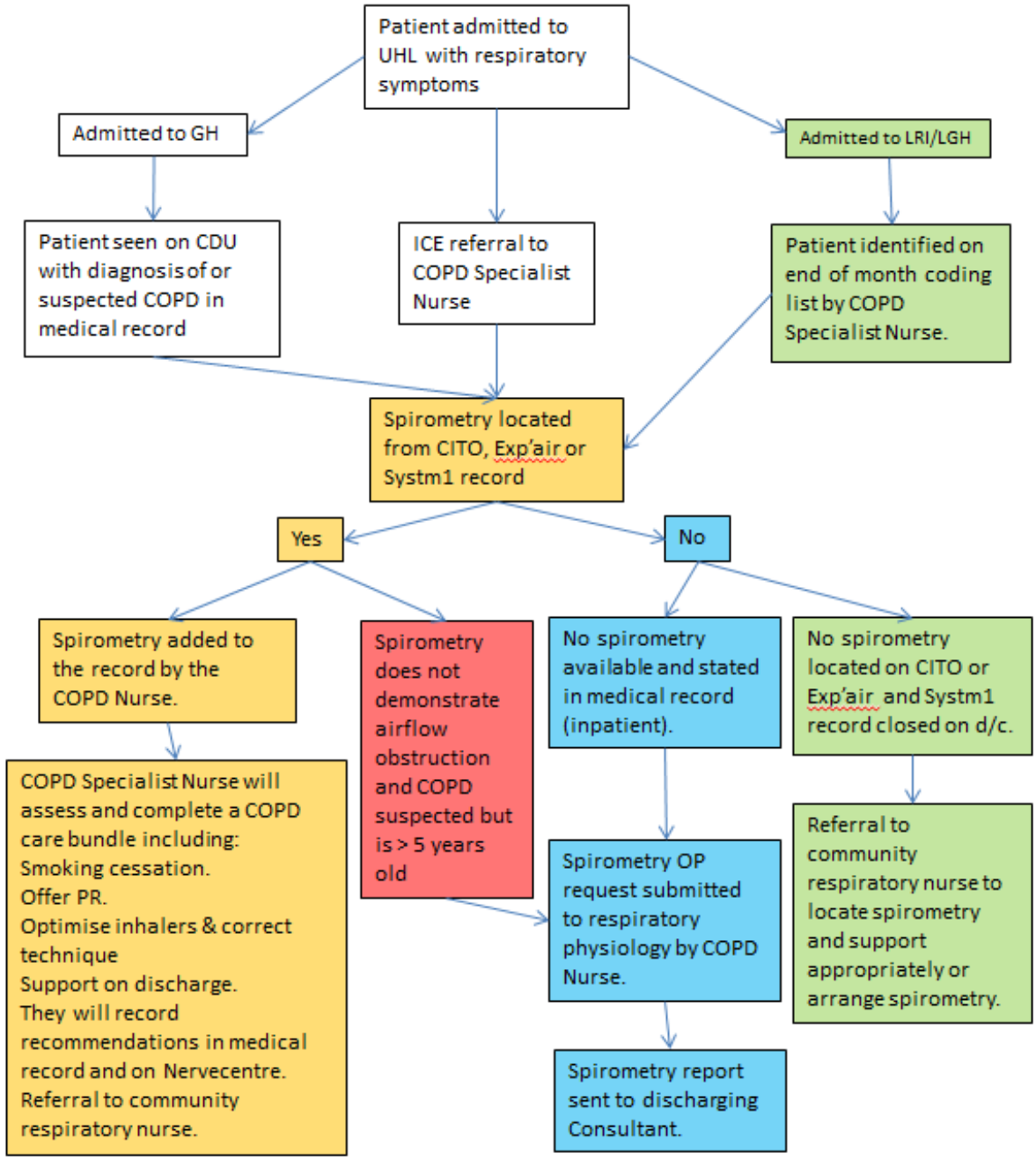
Conclusion

Clinical diagnosis of COPD during hospital admission without spirometric confirmation leads to significant overdiagnosis and inappropriate prescription of inhaled medication. A robust pathway ensures timely test requesting and follow-up to communicate the results to the patient, modify treatment and investigate for other causes of symptoms if necessary.

Pathway for patients admitted to UHL with suspected chronic obstructive pulmonary disease (COPD)

Coding patients with COPD has long-lasting implications for their lifetime.

- Once on the GP record the code is almost impossible to remove.
- Best practice is establishing the diagnosis from the patient history, and confirming the diagnosis with quality assured spirometry. This should not delay the treatment of the patient if the clinical picture suggests COPD. We would recommend a code of **'likely'** or **'probable'** COPD whilst waiting for the diagnosis to be confirmed.



(Figure 2)