Pharmacist-led reviews to proactively manage patients with chronic obstructive pulmonary disease and overcome the backlog of care

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BACKGROUND

Chronic obstructive pulmonary disease (COPD) is a common lung disease causing restricted airflow and breathing problems[1]. In the UK, COPD places a significant burden on healthcare systems and society and is the second largest cause of emergency hospital admissions[2].

In Leicester, Leicestershire and Rutland (LLR) Integrated Care Board (ICB), 1,1164,661 patients were registered with general practice of which 19,431 were coded onto the COPD register representing a prevalence of 1.75%.

In practices where the project was completed, 6000 patients had not received a COPD review in over 12 months.

LLR partnered with Interface Clinical Services, an IQVIA business (IQVIA Interface) to ease some of the pressure caused by the backlog of care.

AIMS

The primary objective was to create a programme that would help reduce the backlog of care, providing efficient care to high-risk COPD patients to help reduce clinical complications or unplanned admissions.

The seven-week support service provided additional clinical resource to assess and proactively manage patients with COPD.

This included:

- Identifying gaps in care to recognise patients at risk of increased exacerbations.
- Providing skilled capacity to deliver best care at scale and help to address healthcare inequalities.
- Providing mentorship opportunities to the multi-disciplinary team to help sustain enhanced care.

METHODOLOGY

STRATIFY PATIENTS WITH A DIAGNOSIS OF COPD	PROVISION OF CLINICAL PHARMACIST-LED CONSULTATIONS	SUPPORT SUSTAINED QUALITY IMPROVEMENT
Provide a baseline of current COPD management and identify cohorts of patients who may benefit from review and optimisation of current COPD management. Cohorts created using IQVIA Interface developed algorithms to interrogate patient medical records alongside clinical guidelines.	• Deploy a national team of Clinical Pharmacists, specialised in management of COPD. • Ensure patients are treated appropriately for their level of symptoms and exacerbations. • Optimisation of pharmacological and non-pharmacological management. • Ensure patients are treated in line with best practice guidelines and practice defined treatment pathways. • Support the practice to overcome the backlog of care caused by the COVID 19 pandemic.	The reviews were delivered in partnership between IQVIA Interface and the practices' multi-disciplinary team. Clinical knowledge and expertise were shared to provide opportunities to upskill. To support ongoing management, of patients with COPD through the provision of a post-service reporting detailing key outputs delivered by the service.

RESULTS

During the review process, 8,692 patients were identified as patients who may benefit from management optimisation.

This equates to 77% of the COPD population of the practices within LLR that participated in the review, 7,420 patients (85%) were invited to clinic.

Of those patients seen in clinic with a pharmacological intervention (figure 1):

- 635 patients received an escalation to their current level of management
- 100 patients received a de-escalation of their current level of management.
- 2132 patients maintained their current level of management

There were also 1,199 non-pharmacological interventions made, including referrals for smoking cessation or pulmonary rehabilitation (Figure 2).

Due to the pandemic and subsequent backlog in care, many of these patients had no recorded care process in the last 12 months (Figure 3).

After the pharmacist clinics there were significant increases to these key markers, including:

- 96% increase in patients who had a COPD review of the practices within LLR that participated in the review.
- 171% increase in patients who had their inhaler technique checked
- 212% increase in patients with a CAT assessment.

FIGURE 1

This is a summary of recommendations and interventions following pharmacist-led clinics. The graph on left hand side shows interventions with respect to GOLD classification.[3] The graph on right hand side shows interventions with respect to current management.

NB "Maintain pharmacological management in line with pathway" would have had a change in type of drug/device however maintained on current pharmacological level. Device/drug change may be due to current inhaler not suited (for example due to inspiratory flow rate, compliance, lack of efficacy etc.) or any other practice direction such as NHS green agenda.

*ICS as a single component inhaler is unlicensed in COPD.

Management interventions following pharmacist-led clinic with respect to GOLD assessment level

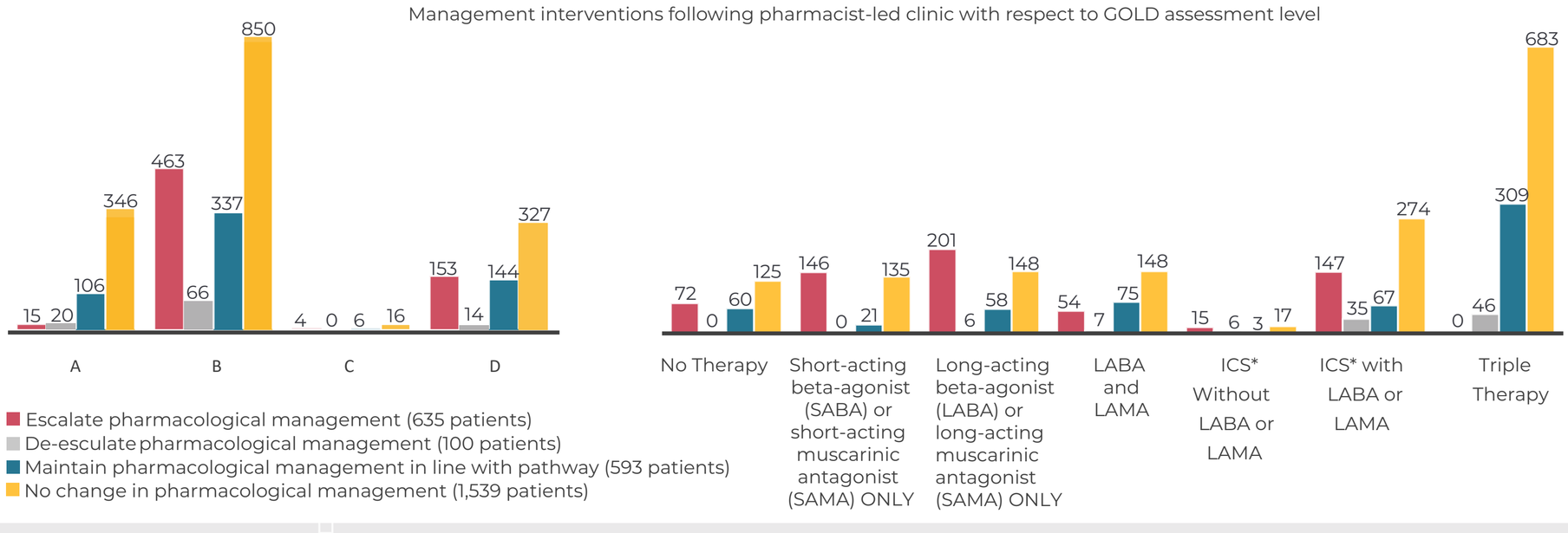


FIGURE 2

Reviews completed between Jan 22 – Mar 2022, hence most patients would have had their flu vaccinations.

Pulmonary rehabilitation referral dependent on other criteria such as symptom score and patient acceptance.

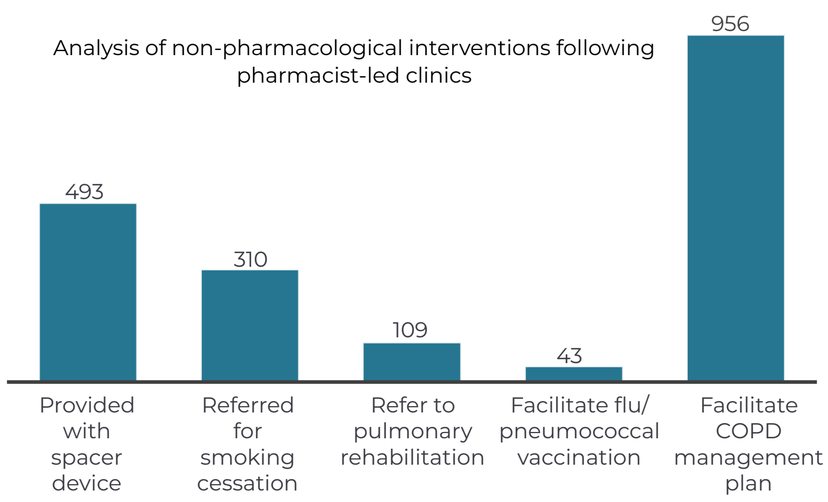
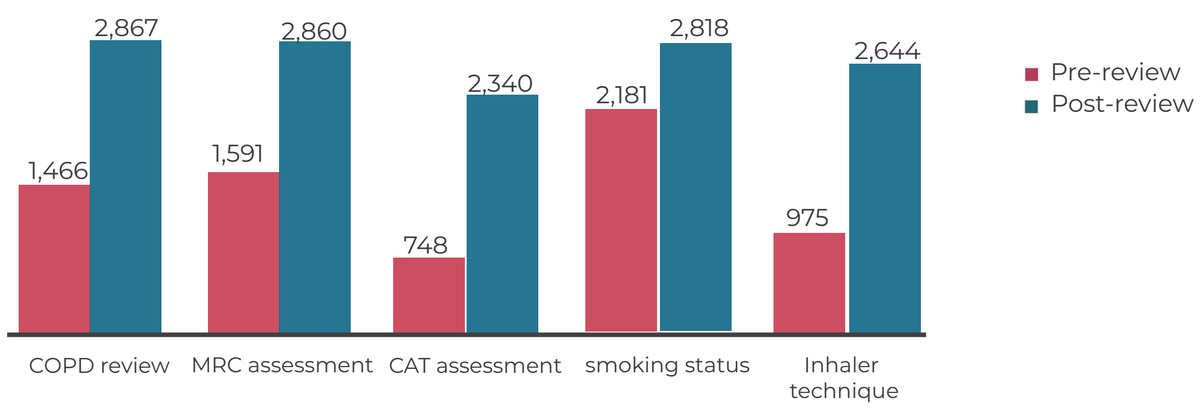


FIGURE 3

COPD care process improvement in patients consulted in pharmacist-led clinic



DISCUSSION

The backlog of care caused by the pandemic has created an unprecedented burden for the NHS, which can have a significant impact on high-risk patients.

A single COPD exacerbation can result in lung damage, have a detrimental impact on quality of life, and increase the risk of death[2].

The seven-week support programme provided LLR GP Practices with the additional clinical resource needed to assess and proactively manage patients with COPD.

The increased capacity benefited the health and well-being of patients whilst the multi-disciplinary team were engaged with the review to provide ongoing, continued care.

By working collaboratively LLR were able to quickly implement a project at scale, utilising pharmacist skills to help reach vulnerable patients, prevent exacerbations and optimise care.

This programme serves as an example as to how care can be delivered at pace and scale to benefit both patients and practice teams, and could be used as a template for delivery in other ICBs across the NHS.

1. https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-(copd)
2. National COPD Action Plan (2021) https://www.pcrs-uk.org/sites/default/files/National-COPD-Policy-Action-Plan.pdf
3. https://goldcopd.org/2022-gold-reports/