

# A toolkit to support the identification and prioritisation of at-risk asthma and COPD patients

Thomas S\* (1), Patel B\* (2), Dhillon J\* (3), Johal J\*, Robinson T (4)

1. Prescribing Decision Support, Keele University. 2. Rushall Medical Centre, Walsall. 3. Umbrella Medical Group, Walsall. 4. Dudley CCG.

\*Committee members of the Midlands Practice Pharmacy Network

## Introduction

The National Review of Asthma Deaths (1) and National COPD Audit Programme (2) identified a series of avoidable risk factors for patients living with asthma and COPD.

Corresponding quality improvement recommendations to reduce the number of preventable attacks and improve disease control have been made with many of these recommendations echoed in both national policy and guidance issued by organisations such as NICE, BTS/SIGN, NHSE, MHRA, GINA and GOLD (3-12).

Nonetheless, the identification of 'high risk' patients for priority review in primary care can often be challenging. The co-ordination of annual reviews for patients with asthma and COPD represents a significant undertaking at a time when resources are under considerable pressure. A proactive and targeted audit can be onerous, and variations in clinical processes and gaps in clinical coding can sometimes result in sub-optimal reporting. Furthermore, limitations and lack of intra-operability associated with GP clinical systems can make the consistent application of best-practice problematic.

## Objective

To develop and test a suite of EMIS Web search reports and alert protocols that will help practitioners to identify and stratify at-risk patients who would most benefit from a review without contributing unduly to practice workload burden.

## Method

Healthcare professional representatives from primary and secondary care reviewed and agreed a shortlist of ten risk factors considered to be clinically important and implementable in primary care, including:

- Patients with no review in the last 12 months
- High use of short-acting reliever inhalers (asthma)
- Exacerbations/emergency admissions and no subsequent review

## Method (contd.)

- High oral corticosteroid/antibiotic use
- COPD patients with an MRC score  $\geq 3$  and no record of pulmonary rehabilitation referral

Each agreed risk factor was translated into a series of aggregated EMIS Web search reports and eight distinct protocol alerts using SNOMED CT coding / search criteria (the 'toolkit').

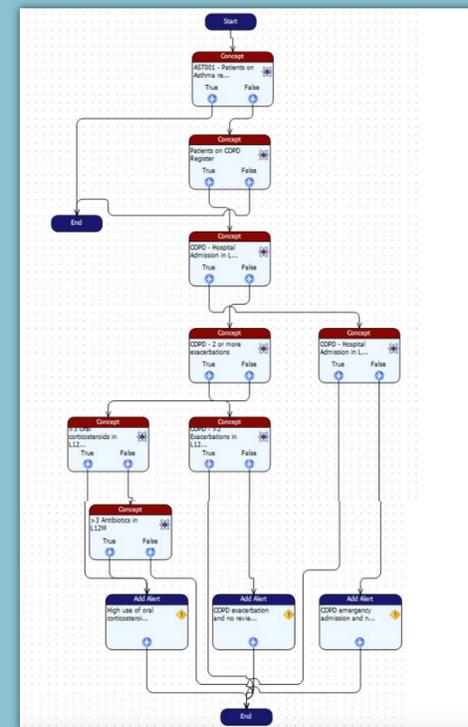
When imported into the EMIS Web clinical system – via a single, consolidated file – the toolkit interrogates the clinical coding in patient records reporting those asthma and COPD patients considered to be at risk of unplanned admissions and/or displaying signs of poor disease control. Patients are 'flagged' either through a proactive audit via the search reports or opportunistically on presentation via the protocol alerts.

## Screenshot example of search report

1a. Asthma patients received more than 12 SABAs in L12M	88
1a. Asthma patients received more than 12 SABAs in L12M Auto Re...	88
1a1. Asthma patients received more than 12 SABAs in L12M	88
1b. All asthma patients currently receiving LABA monotherapy	0
1b. All asthma patients currently receiving LABA monotherapy	0
1c. All asthmatic who were Rx more than 2 courses of oral steroids in th...	954
Oral steroids for Asthma pts	39
1c. All asthmatic Rx more than 2 courses of oral steroids in the L...	39
2a. All COPD patients who are receiving a prescription for ICS Monother...	130
2a. All COPD patients who are receiving a prescription for ICS Monot...	130
All currently registered patients	7608
AST001 - Patients on the asthma register	530
AST003 - Eligible for an assessment of asthma control	525
AST003 - Asthma having review in last 12 months	1
1d. Asthma review in last 12M	1
All Currently Registered Patients	7608
COPD - Patients on COPD Register	164
NOT had COPD review in last 12M	30
2b. NOT had COPD review in last 12M	30
All Currently Registered Patients	7608
COPD - Patients on COPD Register	164
MRC 3 or above	97
Eligible for pulmonary rehabilitation referral	96
2c. Not Offered pulmonary rehabilitation referral	16
Not Offered pulmonary rehabilitation referral	16
All Currently Registered Patients	7608
COPD - Patients on COPD Register	164
2d. more than 2 exacerbations in L12M and/or admission in L12M	28
2d. more than 2 exacerbations in L12M and/or admission in L...	28
All Currently Registered Patients	7608
COPD - Patients on COPD Register	164
2e. COPD pts who have used more than 3 OCS and or more tha...	33
Patients on Asthma register - per QOF	518
1e. All asthma patients had an emergency admission in L12M	11
1e. All asthma patients had an emergency admission in L12M Aut...	11

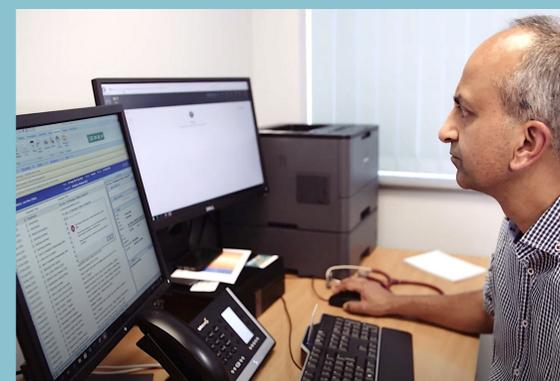
## Method (contd.)

### Screenshot example of a protocol alert



The toolkit was beta-tested and validated by MPPN clinical pharmacists over a period of three months across 10-12 practices (approx. 50-75,000 patients) in the West Midlands to ensure accuracy and utility.

### Beta-testing the toolkit in practice



## Results

Beta-testing concluded the toolkit was easy to install and run and accurately identified 'at risk' patients as defined by the search criteria.

In July 2020, the tested version of the toolkit was made available to all healthcare practitioners in the UK – free to download via <https://asthmacopdtoolkit.org/>. Since launch, the EMIS Web version of the toolkit has been downloaded 250 times and the website visited over 3,400 times. A SystemOne version was launched in October 2020.

## Conclusion

The toolkit offers practitioners a practical and systematic aid in the identification of 'high risk' asthma and COPD patients for priority review in primary care.

Plans are currently underway to audit a number of outcomes associated with improvements in respiratory care in a cohort of patients identified using the toolkit.

## References

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## Acknowledgements

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