Evaluation of the Asthma & COPD Audit & Review Toolkit

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Introduction

Asthma and COPD are severely debilitating respiratory diseases (Asthma UK, 2021); however, deaths and exacerbations are avoidable due to management options available (Torjesen, 2014). Risk factors, such as over-prescribing of reliever inhalers, can be detected by automatic searches and therefore flagging of at-risk patients using the Toolkit.

The use of automatic algorithms to identify patients have been explored in other countries but were often found to be time-consuming (Xi et al, 2015; Pacheco et al., 2009). This research was crucial to evaluate a clinical aid provided for respiratory monitoring within primary care in the UK.

Aim

To evaluate the effectiveness, useability and accessibility of the Asthma & COPD Audit & Review Toolkit.

Methods

A mixed method approach was used. A retrospective chart review of patients identified through use of the toolkit was conducted, alongside a brief survey issued to healthcare professionals providing initial feedback.

Practices were recruited through gatekeepers; visits were arranged, data were collected following the creation and piloting of a data collection tool with measured outcomes shown in *Table 1*. All data collected were anonymised. An anonymous online survey was administered to members of the MPPN through a set distribution list.
Data were analysed using descriptive statistics, percentage comparisons and content analysis for the survey.

Measured Outcomes						
Inhaler technique checked	Compliant with inhaler	Patient counselled on inhaler use	ACT/MRC score	SMP/ PAAP issued	Medicine changes	Sign-posting

Table 1 - Audited outcomes

Results

Audit results

Data were collected from two practices within the West Midlands; Rushall Medical Centre (RMC) and Ridgeacre House Surgery (RHS). 56 patient's records were analysed, 50 from RMC and 6 from RHS.
All patients audited were identified through use of the toolkit due to receiving ≥12 reliever inhalers in the last 12 months.

Mean age of audited patients at RMC and RHS was 45.94 and 42.67 years respectively, with most aged between 18-65 (74% and 67%). The modal diagnosis was asthma (92% and 100%) with a small percentage at RMC having crossover diagnoses of both asthma and COPD (4%) and asthma and bronchiectasis (2%). Pharmacists completed the most reviews (48% and 67%) followed by nurses at RMC (40%) and equally nurses and trainee pharmacists at RHS (both 17%). Improved documentation of ACT scores is shown in *Figure 1.*

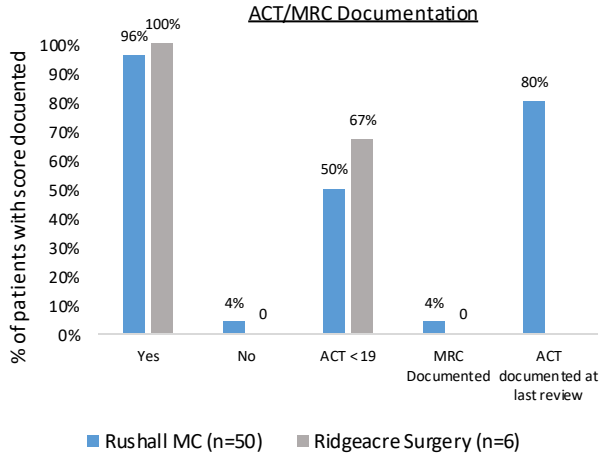

Figure 1 - ACT/MRC Documentation

Survey results

Survey responses were received from 2 participants: both pharmacists. The survey was sent to approx. 170-175 individuals; hence the response rate was calculated as being between 1.14% -1.18%. One pharmacist was based at RMC and the other within Hanley and Shelton Primary Care Network. Both respondents fully completed the required questions of the survey and the average time to complete was 02:48 minutes.

Both respondents stated that the toolkit was being used within their practice/surgery and that it was aiding to identify patients with one of the associated risk factors. Responses can be seen in *Tables 2*, *3* and *4* below.

User-friendliness

Response to Likert scale	Explanation
Extremely easy	"Searches are easy to download into GP system and run. The Pop-up alerts are helpful"
Somewhat easy	"too many searches, but easy to use"

Table 2 – Survey responses

Accessibility

Response to Likert scale	Explanation
Quite accessible	"Main barrier is capacity, but toolkit helps to identify patients so saves time in the long run"
Very accessible	-

Table 3 – Survey responses

Improvements

Respondent	Answer
1	"Ability to develop and add new search criteria in the future to keep abreast with clinical practice"
2	"too many points to consider"

Table 4 – Survey responses

Discussion & Conclusions

- The toolkit was effective at identifying patients that had received ≥12 reliever inhalers in the last 12 months.
- It facilitated with the detection of patients that benefitted from an asthma review.
- Those using the toolkit found it easy to use and accessible.

- Improved documentation was found within patient records after implementation of the Toolkit as show in *Figure 1.*

- A strength of the research is that it is the first to evaluate the Asthma and COPD Audit & Review Toolkit and an in-depth review of patients' records provided detailed information with outcomes in line with QOF indicators.
- A limitation is that only two practices were involved, both in the West Midlands, more data from across the UK would give a comprehensive view of its effectiveness in other practices.
- Survey follow-up may have been beneficial to understand respondents' comments to each theme.
- Future research into how the toolkit overcomes time-consuming manual chart reviews may be beneficial.
- Long-term outcomes, such as the reduction in reliever use/prescribing, may access its long-term effectiveness.

Further research should be conducted, but initial findings indicate the toolkit is effective, easy to use and accessible.

References

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