Experience-based co-design of an implementation-ready intervention to improve adult asthma care in primary care

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The Sentinel Project
Partnering to improve asthma outcomes in Hull

Aim

- To co-design an implementation-ready intervention to be deployed across Hull Primary Care Networks as part of a collaborative quality improvement project (SENTINEL).
- SENTINEL aims to improve asthma outcomes and reduce the environmental impact of asthma inhalers by promoting adoption of the Hull Guideline for the Treatment of Adult Asthma which endorses a SABA-free strategy for BTS step 3 patients [1].

Context

Short acting beta agonist (SABA) overuse (prescription of ≥3 canisters per year) is associated with worse asthma outcomes including exacerbations and death [2]. The NHS long term plan endorses asthma treatment optimisation while minimising the environmental impact of inhaled therapies. SABAs account for the majority of UK greenhouse gas emissions from asthma inhalers [3] and in Hull, 37% of asthmatics receive ≥6 SABAs/year [4]. Tackling SABA overuse will be essential to improve asthma outcomes and reduce the environmental impact of inhalers.

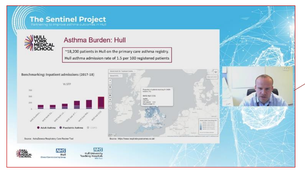
The Co-Designed Intervention

A multi-faceted intervention was developed using a condensed Experience-based Co-Design (EBCD) [5] process comprising: exploratory meetings with NHS staff (=7); staff feedback event; exploratory meetings with asthma patients (=3); joint patient-staff co-design event.

The co-designed intervention comprises the five pillars below.

Co-design contributed to all intervention components and provided insights into potential implementation issues such as staff workload, electronic repeat prescribing, and cross-system consistency. Key changes to the components following co-design input included:

- Prescribing gold standards were increased from three to five in number and the wording of all standards were refined.
- Number of inhaler technique reviews' was added to the metrics to be reported under the data monitoring component, and staff feedback allowed the reporting system to be more sensitively designed.



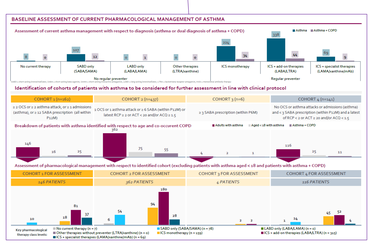
A portfolio of educational assets was developed for HCPs including a project website to house resources. Bespoke education packages are developed, tailored to the needs of primary care organisations, and include live and pre-recorded materials.

1. Health Care Professional Education
2. Implementation of 'gold standard' prescribing practice
3. Targeted Asthma Reviews
4. Patient Support and Education
5. Real-time data monitoring and reporting of asthma care metrics

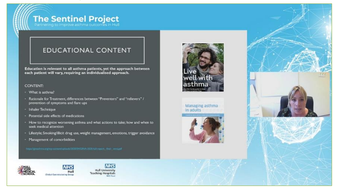
Gold Standard (1)
SABA inhalers should not be prescribed using a repeat prescription without a robust system in place to ensure SABA over-reliance is identified and addressed*.
*Consider limiting automated reissuing to 1 SABA inhaler every 4-6 months with additional requests requiring approval by an appropriate clinician.
Gold Standard (2)
Inhaler technique will be taught and reviewed during every asthma consultation.
Gold Standard (3)
Adherence with preventer therapy will be assessed each time an asthma patient is issued a SABA inhaler.
Gold Standard (4)
All patients using the MART approach should have SABA discontinued within 3 months* and be advised to return any unused SABA to their pharmacy.
* SABA can be discontinued for most patients at the time MART is prescribed because formoterol containing ICS/LABA inhalers are as effective at relieving bronchospasm and symptoms as a SABA. For patients that are psychologically dependent on their SABA, a phased withdrawal over 3 months may be appropriate.
Gold Standard (5)
All patients prescribed a SABA inhaler that have a confirmed diagnosis of asthma will also be prescribed a preventer inhaler.

Prescribing Gold Standards developed through co-design and supported through HCP education materials.

Virtual asthma reviews are conducted with support from a third-party, pharmacist-led service. Patients are prioritised based on SABA utilisation. All HCPs undertaking virtual asthma reviews receive project training.



Participating primary care organisations are provided with a detailed summary of asthma care metrics at baseline and following implementation of the intervention.



A portfolio of educational assets including written material and recorded Q&A videos with HCPs was developed for patients and located on the project website.

Strategy for Change

The intervention will be implemented in Primary Care Networks (PCNs) in Hull over 10 months using a stepped wedge design to facilitate robust evaluation and evidence generation.

Pilot Data

The project was piloted in a PCN with 35,323 registered patients (2,473 asthmatics) between Dec-Jan 2020-21. Asthma patients issued 6 or more SABA inhalers in the preceding 12 months (n=1067) were offered a targeted asthma review. 761 reviews were completed with 633 (83%) having a change made in pharmacological asthma therapy. 407 (56%) reviewed patients were initiated on a MART regimen and 375 (49%) had their SABA prescription discontinued.

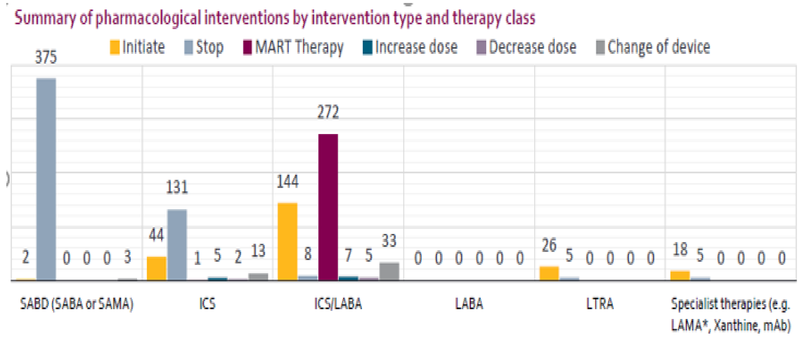


Figure 1. Summary of changes to asthma prescribing as a result of Sentinel Project Targeted Asthma Reviews of patients that received 6 or more SABA inhalers in the preceding 12 months. *Patients already taking an ICS/LABA that were converted to a MART regimen are counted in the 'MART Therapy' column. Patients newly commenced on an ICS/LABA are counted in the 'Initiate' column irrespective of whether they were prescribed a MART regimen or fixed daily dosing.

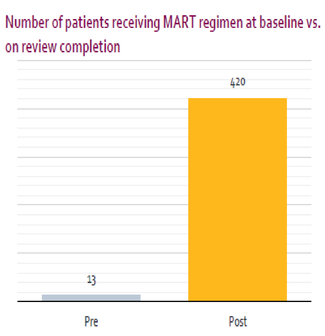


Figure 2. The number of patients prescribed ICS/LABA using a MART regimen before and after their Sentinel Project Targeted Asthma Review.

Key Message for Others

It is feasible to develop a multifaceted quality improvement intervention to tackle SABA overuse through co-design, engaging local patients and clinicians in order to overcome potential implementation barriers.

References
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