
POSTER ABSTRACT

A multi-prong approach to improve spirometry utilisation at GP clinics

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Introduction: Chronic Obstructive Pulmonary Disease (COPD) and asthma are two major chronic respiratory diseases. In Singapore, only 2% of all COPD cases has spirometry done [1]. Under-utilisation of spirometry in the management of asthma and COPD can result in misdiagnosis, leading to inappropriate therapies being prescribed, alternate diagnoses being missed and lost opportunities towards better patient care.

From a survey done on General Practitioners (GPs), the top 3 barriers to utilisation of spirometry were location of tests (69.2%), unavailability of test (64.5%) and patient's affordability (61.5%). With this as the background, we conceived the project "Spirometry Test At General Practitioner's clinics" (STAGE).

Aim: To examine practices surrounding spirometry utilisation at GP clinics when perceived barriers have been removed.

Targeted Population and stakeholders: GP clinics and their patients with suspected or known asthma or COPD.

Stakeholders: STAGE team consisted of the departments of Respiratory & Critical Care Medicine, Clinical Measurement Unit (CMU) and Integrated Care Operations team from Changi General Hospital (CGH). This project was independently funded by Astra Zeneca, Singapore.

Timeline: 1 year.

Highlights: GPs were informed via email that they could refer for free spirometry to be done at their clinic by pre-arranged appointments. A specialist report of the spirometry results will be provided.

On days when no spirometry was scheduled, the spirometry technician will do GP outreach to raise awareness and increase referrals for spirometry.

The initial spirometry referral rate was low with 9.3 average referrals per month (ARPM) from 6 clinics.

Thus, the following interventions were done:

- Monthly emails illustrating key benefits of doing spirometry supported by evidence based medicine and real-life positive testimonials from patients and GPs who had undergone STAGE
- CGH Respiratory Medicine specialists sharing about STAGE at GP continuing medical education events
- Strategized face-to-face clinic visit by the spirometry technician

This saw an increased referral uptake of 17.3 ARPM from 42 clinics.

- Further steps taken to correct misconceptions about STAGE workflow received from GPs' feedback.
- A calendar style "Asthma Action Plan tearable sheet" with STAGE project workflow printed on the front cover was distributed to GPs to serve as reminder.
- 2 posters are given to GPs for display in their GP clinics to educate patients about asthma and COPD and to prompt patients to enquire about spirometry to diagnose the conditions

With the above interventions running in tandem, it saw a culmination of 28.3 APRM in the last quarter. The number of GP clinics referring increased from 2 clinics per month to a maximum of 15.

Comments on sustainability: To sustain spirometry uptake, constant reminders and engagement of GPs are needed.

Conclusion: Changing professional practice requires a combination of TOUCH with TECH interventions. Rapid Improvement Events was applied and prompt effective solutions implemented based on ground feedback and referral patterns. Constant engagement and building trust are key factors in changing practice.

Lesson learned: Constant engagement is the key to the change in health professional behaviour.

References:

- 1- Singapore Ministry of Health. Clinical Practice Guidelines: Chronic Obstructive Pulmonary Disease. 2017