

Assessment of asthma diagnosis and management in academic primary clinic

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Background: The 2019 Global Initiative for Asthma (GINA) guideline recommends changes in asthma management, including prescribing a low-dose inhaled corticosteroid (ICS)-formoterol inhaler, rather than a short-acting beta agonist (SABA), for as-needed therapy regardless of severity. An alternative is SABA paired with an ICS-containing inhaler. In our experience at academic clinic, patients' reported diagnosis of asthma is often unconfirmed and Pulmonary Function Tests (PFTs) are difficult to access in the electronic medical record (EMR). Therefore, we suspect that the prescribed treatment may not be based on the GINA guideline.

Methods: A total of 300 patients who visited our clinic in January 2022 were randomly selected and their current and past visits were reviewed in the EMR. Patients were included in the analysis if there was a documented problem of "asthma" or "asthma/chronic obstructive pulmonary disease (COPD)." The following measures were collected: 1) documentation of PFT results or an order for PFTs if absent in the EMR and 2) current inhaler prescriptions (i.e., SABA alone, ICS-formoterol, and SABA + ICS combination).

Results: Out of the 300 patients, 40 (13.3%) had "asthma" (n=34) or "asthma/COPD" (n=6) documented. Of the 14 (35.0%) patients that had PFTs available in the EMR, only two included a bronchodilator test and six demonstrated an obstructive airway disease. When a PFT was available in the EMR, it was documented only 42.9% of the time. When there was no PFT, it was ordered 30.8% of the time. 30.0% of the patients were prescribed ICS-formoterol as one of their treatments, 27.5% SABA and ICS combination, and 32.5% SABA only.

Conclusions: Our study showed that PFTs were not documented about half of the time despite being available in the EMR. If there was no PFT available, it was ordered less than a third of the time. About one-third of the patients were treated with SABA only, which is inconsistent with the GINA guideline.