

SAND abstract No. 161 from the BEACH program 2009–10

Subject: Chronic obstructive pulmonary disease (COPD) in general practice patients

Organisation supporting this study: Novartis Pharmaceuticals Australia Pty Ltd

Issues: For patients attending general practice – the proportion who had diagnosed chronic obstructive pulmonary disease (COPD) with or without asthma; the severity of COPD; factors contributing to diagnosis of COPD; the proportion with asthma diagnosed before COPD; medication taken for management of COPD/COPD with asthma; the proportion who had medication changes at the current encounter, and the reasons for these changes.

Sample: 2,842 patients from 97 GPs; data collection period: 23/02/2010 – 29/03/2010.

Method: Detailed in the paper entitled *SAND method 2009–10* at:

www.fmrc.org.au/publications/SAND_abstracts.htm. **Methods for this study:** GOLD COPD guidelines were used to categorise severity of COPD (www.goldcopd.com/).

Summary of results

There were 2,939 patients sampled, and 2,842 (96.7%) of these responded to asthma and COPD questions. The age distribution did not differ from that of patients at all BEACH encounters in 2008–09, but the sex distribution differed significantly (35.1% male compared with 42.4% male at all 2008–09 BEACH encounters).

Of the 2,842 respondents, 273 patients (9.6%, 95% CI: 8.1–11.2) currently had diagnosed asthma without COPD, 79 (2.8%, 95% CI: 2.0–3.5) had COPD without asthma, 65 (2.3%, 95% CI: 1.6–3.0) had both COPD and asthma, and 2,425 (85.3%, 95% CI: 83.3–87.4) had neither. The highest prevalence was in patients aged 65–74 years. There was no significant difference between proportions of males and females with COPD.

Severity was reported for 142 patients with COPD, 37.3% had mild COPD, 43.0% had moderate COPD, 1 in 10 (11.3%) had severe COPD, and 8.5% had very severe COPD.

Of the 144 patients with COPD, factors contributing to the diagnosis were reported for 142 (98.6%). Some were health states/risk factors, and some were diagnostic factors. Each section of this question had a different number of respondents: of 126 patients, 123 (97.6%) selected 'clinical history/symptoms' as a contributing factor; of 80 respondents, 32 (40.0%) selected 'non-response to bronchodilator'; of 128 respondents, 117 (91.4%) nominated smoking history; of 68 respondents, 19 (27.9%) selected environmental irritants; of 101 respondents, 83 (82.2%) reported spirometry testing; and of 110 respondents, 83 (75.5%) selected chest x-ray. Twelve patients reported other factors, 5 of whom had CT scans.

Of the 65 patients with both COPD and asthma, 38 of 56 respondents (67.9%) reported having asthma diagnosed before the COPD diagnosis.

Medication use questions were answered by 137 of the 144 patients with COPD, and 117 of these (85.4%) were taking at least one. These 117 patients reported a total of 232 medications. The most frequently reported were tiotropium (29.7%) and salbutamol (25.0%). Twelve patients (11.1% of 108 respondents) reported having medication changed at the current encounter. For 5 patients, progression of disease was the reason for the change, and 2 patients had medication changed due to lack of efficacy.

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Severity of Chronic Obstructive Pulmonary Disease (COPD) reference card

Severity	Measure	Symptoms
Mild	FEV ₁ /FVC < 0.7 FEV ₁ ≥80% predicted	Characterised by mild airflow limitation. Symptoms of chronic cough and sputum production may be present.
Moderate	FEV ₁ /FVC < 0.7 FEV ₁ ≥50 and <80% predicted	Characterised by worsening airflow limitation. Shortness of breath typically developing on exertion, chronic cough and sputum production may also be present.
Severe	FEV ₁ /FVC < 0.7 FEV ₁ ≥30 and <50% predicted	Characterised by further worsening of airflow limitation. Greater shortness of breath, reduced exercise capacity, fatigue, and repeated exacerbations that almost always have an impact on patients' quality of life.
Very severe	FEV ₁ /FVC < 0.7 FEV ₁ <30% predicted or FEV ₁ <50% predicted plus chronic respiratory failure ^(a)	Characterised by severe airflow limitation. Quality of life is very appreciably impaired and exacerbations may be life threatening.

(a) Respiratory failure is defined as arterial pressure of oxygen (P_{aO₂}) <8.0 kPa (60 mm Hg) with or without arterial partial pressure of CO₂ (P_{aCO₂}) >6.7 kPa (50 mm Hg) while breathing at sea level.

Note: FEV₁—post bronchodilator forced expiratory volume in one second; FVC—forced vital capacity (maximal inspiration); FEV₁/FVC—ratio of forced expiratory volume to forced vital capacity.

Source: Rabe KF, Hurd S, Anzueto A, Barnes PJ, Buist SA, Calverley P et al. 2007. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease: GOLD executive summary. *Am J Respir Crit Care Med* 176(6):532-555

PLEASE READ CAREFULLY

The shaded section of the following forms asks questions about **MANAGEMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE**.
 You may tear out this page as a guide to completing the following section of forms.

INSTRUCTIONS

Please answer the following questions for **ALL** of the **next 30 PATIENTS** in the order in which the patients are seen.

Please **DO NOT** select patients to suit the topic being investigated.

Chronic Obstructive Pulmonary Disease (COPD) and asthma

Please use the tick boxes to indicate whether this patient has been diagnosed with **COPD (without asthma)**, **COPD with asthma** or **asthma (without COPD)**.

If the patient has been diagnosed with COPD (with or without asthma) please continue with the questions on this form.

If the patient has **not been diagnosed with COPD** please **end questions here** for this patient.

Factors contributing to COPD diagnosis

Please use the tick boxes to indicate the **factors** that played a role in the **diagnosis of COPD** in this patient.

Current medications

For patients with COPD (with or without asthma) please write the **name, form and regimen (dose and frequency)** of the COPD/asthma medication(s) **currently used**.

If the patient is **not taking any medication** for the treatment of COPD/asthma please tick the box labelled '**no medication**'.

Reasons for medication change

If the medication was changed at today's encounter please indicate the **reason(s) that it was changed**.

Severity of COPD

Referring to the **COPD severity scale** on the **laminated card** in your research pack, please indicate the **severity of the patient's COPD**.

COPD with asthma

For patients with both COPD and asthma please indicate if the **asthma was diagnosed prior to the COPD**.

Medication change

Please use the tick boxes to advise whether the patient's **COPD or asthma medication was changed** as a result of **today's encounter**. This includes, for example, changes in the dosage of existing medications, starting or stopping medications.

<p>Has this patient been diagnosed with:</p> <p>COPD with Asthma <input type="checkbox"/></p> <p>COPD without Asthma <input type="checkbox"/></p> <p>Asthma without COPD <input type="checkbox"/></p> <p>None of the above <input type="checkbox"/></p> <p>End questions ←</p>	<p>How severe is the patient's COPD?</p> <p><i>According to the GOLD guidelines (see card)</i></p> <p><input type="checkbox"/> Mild</p> <p><input type="checkbox"/> Moderate</p> <p><input type="checkbox"/> Severe</p> <p><input type="checkbox"/> Very Severe</p>	<p>Which factors contributed to the COPD diagnosis?</p> <table border="0"> <tr> <td></td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Clinical history/symptoms</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Non-response to bronchodilator</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Smoking history</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Environmental irritants</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Spirometry</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Chest X-ray</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Other: _____</td> <td></td> <td></td> </tr> </table>		Yes	No	Clinical history/symptoms	<input type="checkbox"/>	<input type="checkbox"/>	Non-response to bronchodilator	<input type="checkbox"/>	<input type="checkbox"/>	Smoking history	<input type="checkbox"/>	<input type="checkbox"/>	Environmental irritants	<input type="checkbox"/>	<input type="checkbox"/>	Spirometry	<input type="checkbox"/>	<input type="checkbox"/>	Chest X-ray	<input type="checkbox"/>	<input type="checkbox"/>	Other: _____			<p>If the patient has both COPD and asthma, was the asthma diagnosed prior to the COPD?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>Current COPD/asthma+COPD medication/s:</p> <table border="0"> <tr> <th>Name & Form</th> <th>Strength</th> <th>Dose</th> <th>Frequency</th> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="4"><input type="checkbox"/> NO MEDICATION</td> </tr> </table>	Name & Form	Strength	Dose	Frequency	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	<input type="checkbox"/> NO MEDICATION				<p>Was the COPD/asthma medication changed today (e.g. change in dose or type of medication)?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>If 'yes', for what reason(s) was it changed?</p> <p><input type="checkbox"/> Lack of efficacy</p> <p><input type="checkbox"/> Patient request</p> <p><input type="checkbox"/> Progression of disease</p> <p><input type="checkbox"/> Side effect(s)</p> <p><input type="checkbox"/> Other: (please specify)</p> <p>_____</p>
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