



# Presentations of shortness of breath in Australian general practice

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The BEACH program, a continuous national study of general practice activity in Australia, gives us an overview of the consultations in general practice involving a patient presentation of shortness of breath. This provides a backdrop against which articles in this issue of *Australian Family Physician* can be further considered.

## Rate of presentation

Among the 602 100 encounters recorded by 6021 general practitioners in BEACH April 1998 to March 2004, there were 5215 at which the patient gave shortness of breath (SOB) as one of their reasons for encounter (RFE) (Figure 1). These patients presented at a rate of 0.9 per 100 encounters, about 900 000 occasions per year across Australia.

## Other reasons for encounter

At one-third (33.8%) of these encounters, SOB was the only RFE described by the patient. For those presenting with multiple RFEs, common additional symptoms included cough (16.9 per 100), chest pain (5.0) and weakness/tiredness (3.5 per 100).

## The patients

There was a significantly higher proportion of male patients presenting with SOB compared with the proportion of male patients in all of BEACH (46.8% compared with 42.6%). Patients 65 years and older made up almost 60% of patients presenting with SOB, more than double the proportion in this age group in total BEACH.

The sex specific rates of presentation show that males were slightly more likely to present with SOB (1.0 per 100 male encounters) than females (0.8 per 100 female encounters). Age specific rates were steady at about 0.5 across patient age groups until the 65–74 years age group, where the rate rose considerably to 1.7, and then again for those aged 75 years and over, where the rate

was 2.3 per 100 encounters.

## Problems managed

There were 8891 problems managed, 171.0 per 100 SOB encounters. This is a significantly higher number of problems than average in BEACH (146 per 100 encounters), probably reflecting the older age distribution of these patients. Asthma was the most common problem managed, recorded at a rate of 21 per 100 of these encounters. Chronic obstructive pulmonary disease was also common, at 19.2 per 100, as was heart failure at 18.2 per 100 of encounters. At 8.6% of these encounters, the GP did not reach a diagnosis, recording the problem only as the symptom 'shortness of breath'.

## Management of the undiagnosed problem

The most difficult group for GPs is the patients for whom the symptom remains undiagnosed at the end of the encounter. In the case of SOB, 445 of the 5200 presentations remained undiagnosed. The likelihood of this occurring was slightly lower for males (7.6%) than for females (9.3%). It was lowest in children (5.2% in those aged 5–14 years) and highest in adults aged 45–64 years, where for 11.9% of patients the problem remained labelled as 'shortness of breath'.

## Medications

For almost 80% of the undiagnosed SOB problems, no medication was prescribed, advised or supplied. The medication rate was 33.4 per 100 problems, less than half the

average rate for BEACH (71.3). Salbutamol and frusemide were equally the most common generic medication (5.8 per 100 SOB encounters), reflecting the two likely causes of the problem, respiratory or cardiovascular. Inhaled adrenergics were the most common drug group.

Other treatments were provided at a rate close to average (30.8 per 100 problems). The high rate of electrocardiograms performed by GPs for SOB was reflected in the significantly higher result for electrical tracings: 5.8 per 100 SOB problems compared with 0.2 per 100 total problems in BEACH.

## Referrals and tests

The patients were referred elsewhere for this problem at a far higher rate (17.1 per 100 contacts) than the BEACH average (8 per 100). These referrals were usually to a cardiologist (7.2 per 100). Pathology tests were ordered at more than double the average rate, with full blood counts being the most common. Imaging tests were ordered at almost 10 times the average rate (46.3 compared with the average of 5.6). Chest X-rays were the most common of these, ordered at a rate of 38.2 per 100 SOB problems.

Conflict of interest: none declared.

AFP

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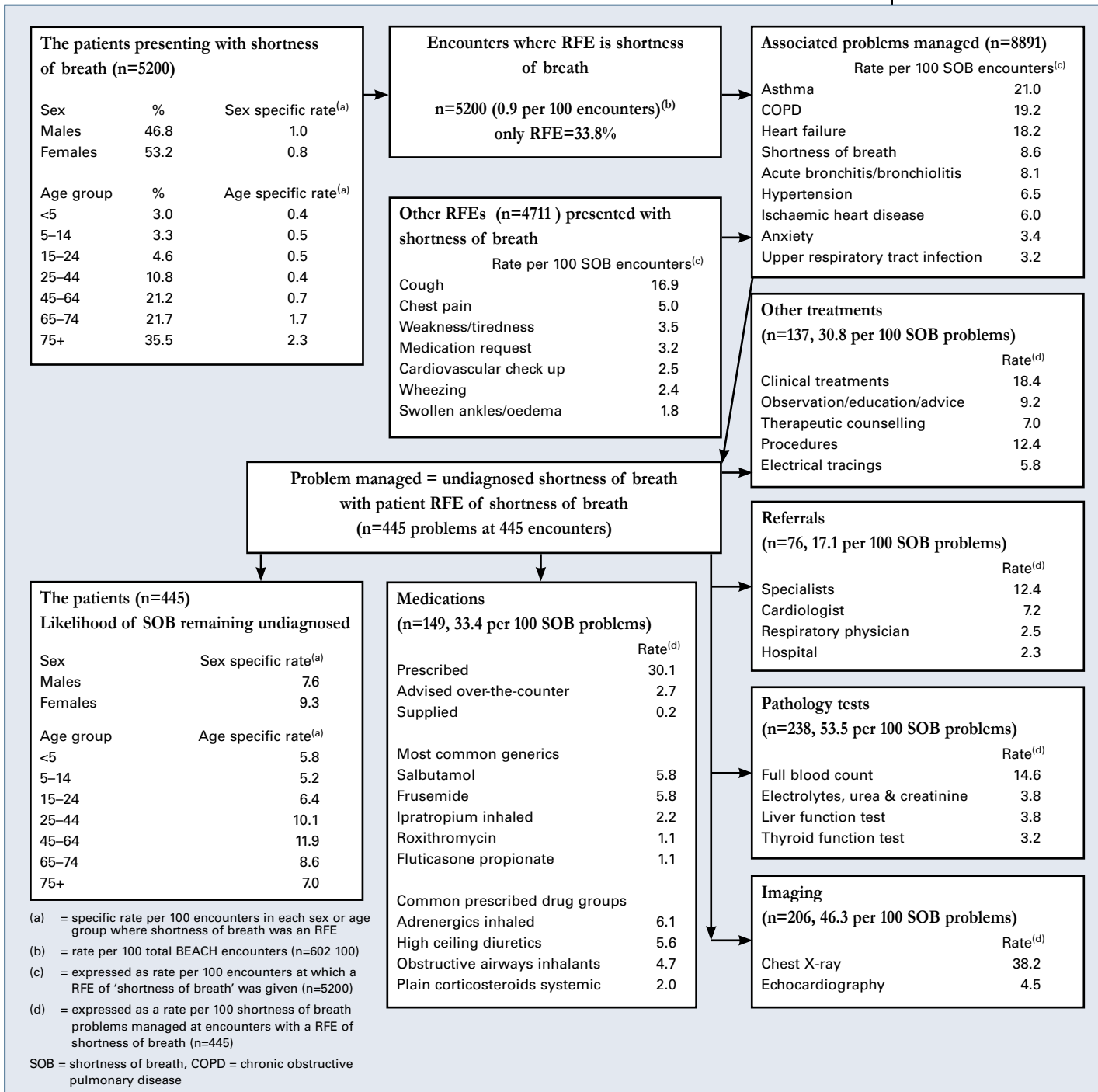


Figure 1. Presentations of shortness of breath, and management of the undiagnosed problem