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Asthma and eligibility for the Australian Defence Force

Background
Entry to the Australian Defence Force (ADF) for candidates with asthma has recently changed.

Objective
This article summarises the ADF entry standards for candidates with asthma. It also explains the role of general practitioners in the safe and smooth transition to the military training environment for patients with asthma.

Discussion
Candidates with mild asthma may be considered for entry to the ADF subject to certain criteria which includes normal spirometry and negative bronchial provocation testing. If a candidate with asthma is assessed as fit to enter the ADF, they will need to present to their GP before entry to ensure they are prepared. Assistance from the GP in providing the patient with appropriate Asthma Action Plans, prescriptions, and medications is required to ensure continuity of care during what is often a challenging transition to military life.

Entry to the Australian Defence Force (ADF) for candidates with asthma has recently changed. Until mid 2007, any candidate with a history of asthma within the previous 5 years was considered unfit for entry to the military. Based on clinical evidence, medical standards for entry to the ADF were relaxed, allowing some people with mild asthma to enter the ADF under strict guidelines. These guidelines are necessary due to the sometimes arduous and isolated nature of military service. The standards remain unchanged for aircrew, divers, submariners and special forces categories.

The National Asthma Council *Asthma Management Handbook* 2006[1] is pivotal in the assessment and management of these applicants. It classifies people with asthma into: mild intermittent, mild persistent, moderate persistent and severe persistent, depending on their symptoms and management requirements (*Table 1, 2*).

For ADF purposes, applicants with intermittent and mild persistent asthma may be fit for entry subject to criteria based on *Asthma Management Handbook* guidelines. Applicants in the moderate and severe persistent categories continue to be considered unfit to join the ADF.

Assessing fitness for ADF

If there is no history of asthma symptoms in the past 3 years, applicants are considered fit and continue through processing.

Applicants with a history of any symptoms or treatment within 3 years have spirometry performed. If the tested forced expiratory volume in 1 second (FEV_1) is <80% of predicted, these candidates are considered unfit (*Figure 1*).

FEV1 more than 80% and no current treatment

If the tested FEV_1 is >80% these applicants are referred for bronchial provocation testing (BPT) to assess bronchial reactivity. Those candidates who are classified as mild asthma based on symptoms and treatment, have normal spirometry and have a negative BPT are considered fit for entry to the ADF.

Table 1. Classification of asthma in a patient with untreated, newly diagnosed asthma

	Day time asthma symptoms	Night time asthma symptoms	Exacerbations	Spirometry
Intermittent	• Less than weekly	• <2 per month	• Infrequent • Brief	• FEV_1 at least 80% predicted • FEV_1 variability <20%
Mild persistent	• More than weekly and less than daily	• More than two per month but not weekly	• Occasional • May affect activity or sleep	• FEV_1 at least 80% predicted • FEV_1 variability 20–30%
Moderate persistent	• Daily	• Weekly or more often	• Occasional • May affect activity or sleep	• FEV_1 60–80% predicted • FEV_1 variability >30%
Severe persistent	• Daily • Physical activity is restricted	• Frequent	• Frequent	• FEV_1 60% predicted or less • FEV_1 variability >30%

An individual's asthma pattern (intermittent, mild persistent, moderate persistent or severe persistent) is determined by the level in the Table that corresponds to the most severe feature present. Other features associated with that pattern need not be present

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Table 2. Classification of asthma severity in a patient with treated asthma

	Daily treatment requirement (includes prn SABA)			
Clinical features and lung function	**No inhaled ICS**	**Low dose ICS**	**Low to medium dose ICS and LABA**	**High dose ICS + LABA ± other agents**
• Day time symptoms occur less than once per week • Night time symptoms occur less than twice per month • Exacerbations are brief • FEV_1 between episodes is at least 80% predicted and 90% personal best	Intermittent	Mild persistent#	Moderate persistent#	Severe persistent#
• **Any of:** – day time symptoms more than once per week but not every day – night time symptoms more than twice per month but not weekly – FEV_1 between episodes >80% predicted and 90% personal best	Mild persistent*	Moderate persistent*	Severe persistent*	Severe persistent
• **Any of:** – day time symptoms daily – night time symptoms at least weekly – exacerbations affect sleep/activity – SABA use daily – FEV_1 is 60–80% predicted and 70–90% personal best	Moderate persistent*	Moderate persistent*	Severe persistent*	Severe persistent
• **Any of:** – day time symptoms every day and restrict physical activity – night time symptoms frequent – exacerbations are frequent – FEV_1 is <60% predicted and <70% personal best	Severe persistent*	Severe persistent*	Severe persistent*	Severe persistent*

• Increase treatment and reassess severity within 3 months

If patient's asthma has matched this category for 3 months and is stable, consider down titration of medications and reassess within 3 months

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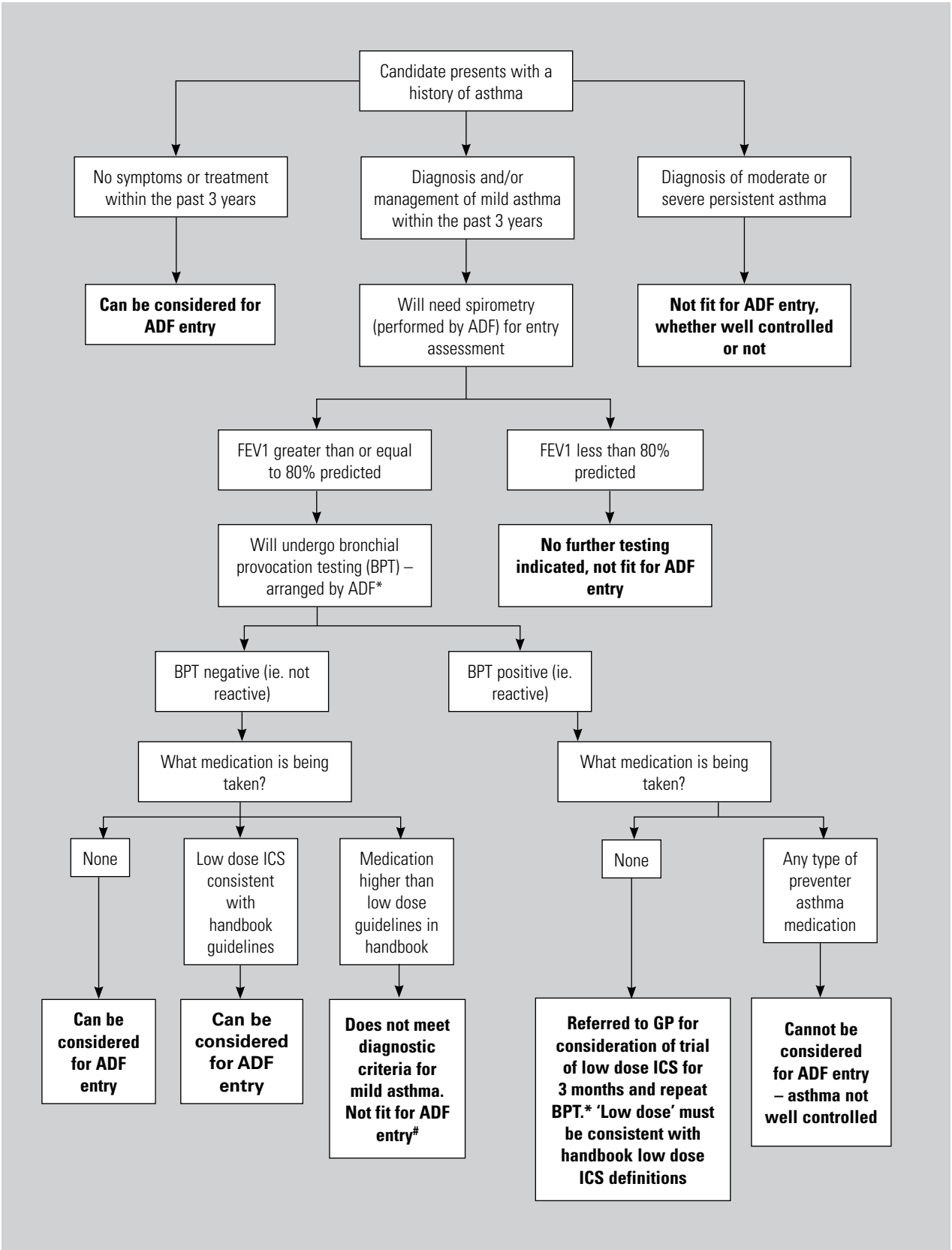
Figure 1. Decision process for ADF candidates with asthma



* Any BPT conducted for the purposes of ADF recruiting will be arranged by ADF recruiting
\# Referred back to GP. If suitable can back titrate medication. If BPT negative after 3 months on low dose ICS then may be considered for ADF

Table 3. Inhaled corticosteroid dose equivalents

	Daily ICS dose			
Dose level	**CIC***	**BDP-HFA****	**FP****	**BUD****
Low	80–160 mcg	100–200 mcg	100–200 mcg	200–400 mcg
Medium	160–320 mcg	200–400 mcg	200–400 mcg	400–800 mcg
High	320 mcg and over	Over 400 mcg	Over 400 mcg	Over 800 mcg

ICS = inhaled corticosteroid; LABA = long acting beta 2 agonist; CIC = ciclesonide; BDP-HFA = beclomethasone dipropionate; FP = fluticasone propionate; BUD = budesonide
* ex actuator dose
** ex valve dose

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Candidates with mild asthma, FEV_1 of over 80% predicted but with a positive BPT need further assessment. At this stage these candidates are referred back to their usual general practitioner for assessment of suitability for a trial of low dose inhaled corticosteroids (ICS). The approved doses are based on the classifications contained within the *Asthma Management Handbook* guidelines (*Table 3*). Low dose equivalents are daily doses of:

- 80–160 mcg ciclesonide
- 100–200 mcg beclomethasone
- 100–200 mcg of fluticasone, or
- 200–400 mcg budesonide.

It is acknowledged that these particular doses align with guideline doses for mild asthma and can be awkward in general practice (for example, 100–200 mcg of fluticasone requires the use of a paediatric puffer rather than the more usual 250 mcg adult puffer). However, the need for higher doses or combined therapy with long acting beta agonists (LABA) means they do not have mild asthma, and cannot be fit to join the ADF. Use of higher doses than those noted here can result in unnecessary delays in candidate processing, as they cannot be accepted on higher doses, and will usually require repeat provocation testing on an appropriate dose. Once a candidate has been on an appropriate low dose of ICS for 3 months, repeat BPT is undertaken. If this is negative, applicants can be considered fit for entry to the ADF.

FEV1 more than 80% and already on treatment

If a candidate has an FEV_1 of >80% predicted but is already on treatment, this can become a little confusing. If the treatment falls within the guidelines of low dose ICS for mild asthma, then provided they have a negative BPT they can be considered fit for entry. If the medication in use is higher than low dose, or involves combination therapy with a LABA, these candidates do not progress to a BPT. They are instead referred back to their treating GP for assessment of suitability for trial of low dose ICS, ie. a back titration of their medication. It is important to note that any adjustment to medication is a clinical decision by the treating GP.

If a candidate is suitable, they undergo a trial of low dose medication for 3 months, undergo a BPT, and if the BPT is negative, can be considered fit for entry to the ADF. If the BPT is positive, these candidates are considered to have a level of asthma which makes them unsuitable for entry.

Fit to enter ADF – what then?

If a candidate who has asthma is assessed as fit to enter the ADF, they will need to present to their usual GP before entry to ensure they are prepared. Assistance from the GP in providing them with appropriate asthma management plans and medications is required to enhance continuity of care during what is often a challenging transition to military life. At entry time candidates need to have:

- a written Asthma Action Plan
- sufficient medications to last 1 month and a prescription to last 2 months, and
- been educated regarding their asthma and their action plan.

These requirements are checked on the candidate's date of entry. If entrants do not have these with them, they may not be able to enter the ADF at that time.

Once considered acceptable, candidates are assigned a medical category to ensure they are employed safely with the right level of medical support available (eg. access to medications or medical care). These restrictions are considered to be the most effective method of allowing entry to the ADF of people with intermittent or mild asthma, while still meeting duty of care requirements.

Conflict of interest: none declared.

Reference

1. National Asthma Council Australia. Asthma Management Handbook 2006. South Melbourne: National Asthma Council Australia Ltd, 2006.

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