

USE OF MEDICATION

GUIDANCE FOR PILOTS, ATCOs AND CABIN CREW MEMBERS

Prior to exercising the privileges of their licenses and attestation pilots, ATCOs and cabin crew members should give proper consideration to the following:

- (a) Any medication can cause side effects, some of which may impair the safe performance of performing aviation safety related duties. Equally, symptoms of colds, sore throats, diarrhoea and other abdominal upsets may cause little or no problem whilst on the ground but may distract the pilot or cabin crew member and degrade their performance whilst on duty. The in-flight environment may also increase the severity of symptoms which may only be minor whilst on the ground. Therefore, one issue with medication and performing aviation safety related duties is the underlying condition and, in addition, the symptoms may be compounded by the side effects of the medication prescribed or bought over the counter for treatment. This guidance material provides some help to pilots and cabin crew in deciding whether expert aero-medical advice by an AME, AeMC, GMP, OHMP or medical assessor is needed.
- (b) Before taking any medication and acting as a pilot or cabin crew member, the following three basic questions should be satisfactorily answered:
 - (1) Do I feel fit to perform my duties?
 - (2) Do I really need to take medication at all?
 - (3) Have I given this particular medication a personal trial on the ground to ensure that it will not have any adverse effects on my ability to perform my duties?
- (c) Confirming the absence of adverse effects may need expert aero-medical advice.
- (d) The following are some widely used medicines with a description of their compatibility with performing aviation safety related duties:
 - (1) Antibiotics. Antibiotics may have short-term or delayed side effects which can affect pilot or cabin crew performance. More significantly, however, their use usually indicates that an infection is present and, thus, the effects of this infection may mean that a pilot or cabin crew member is not fit to perform their duties and should obtain expert aero-medical advice.
 - (2) Anti-malaria drugs. The decision on the need of anti-malaria drugs depends on the geographical areas to be visited, and the risk that the pilot or cabin crew member has of being exposed to mosquitoes and of developing malaria. An expert medical opinion should be obtained to establish whether anti-malaria drugs are needed and what kind of drugs should be used. Most of the anti-malaria drugs (atovaquone plus proguanil, chloroquine, doxycycline) are compatible with performing aviation safety related duties. However, adverse effects associated with mefloquine include insomnia, strange dreams, mood changes, nausea, diarrhoea and headaches. In addition, mefloquine may cause spatial disorientation and lack of fine coordination and is, therefore, not compatible with performing aviation safety related duties.
 - (3) Antihistamines. Antihistamines can cause drowsiness. They are widely used in 'cold cures' and in treatment of hay fever, asthma and allergic rashes. They may be in tablet form or a constituent of nose drops or sprays. In many cases, the condition itself may preclude performing aviation safety

related duties, so that, if treatment is necessary, expert aero-medical advice should be sought so that so-called non-sedative antihistamines, which do not degrade human performance, can be prescribed.

- (4) Cough medicines. Antitussives often contain codeine, dextromethorfan or pseudo-ephedrine which are not compatible with performing aviation safety related duties. However, mucolytic agents (e.g. carbocysteine) are well-tolerated and are compatible with performing aviation safety related duties.
- (5) Decongestants. Nasal decongestants with no effect on alertness may be compatible with performing aviation safety related duties. However, as the underlying condition requiring the use of decongestants may be incompatible with performing aviation safety related duties, expert aero-medical advice should be sought. For example, oedema of the mucosal membranes causes difficulties in equalising the pressure in the ears or sinuses.
- (6) Nasal corticosteroids are commonly used to treat hay fever, and they are compatible with performing aviation safety related duties.
- (7) (i) Common pain killers and antifebrile drugs. Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and paracetamol, commonly used to treat pain, fever or headaches, may be compatible with performing aviation safety related duties. However, the pilot or cabin crew member should give affirmative answers to the three basic questions listed in (b) before using the medication and carrying out performing aviation safety related duties.

(ii) Strong analgesics including codeine are opiate derivatives, and they may produce a significant decrement in human performance and, therefore, are not compatible with performing aviation safety related duties.
- (8) Anti-ulcer medicines. Gastric secretion inhibitors such as H2 antagonists (e.g. ranitidine, cimetidine) or proton pump inhibitors (e.g. omeprazole) may be acceptable after diagnosis of the pathological condition. It is important to seek for the medical diagnosis and not to only treat the dyspeptic symptoms.
- (9) Anti-diarrhoeal drugs. Loperamide is one of the most common anti-diarrhoeal drugs and is usually safe to take whilst performing aviation safety related duties. However, the diarrhoea itself often makes the pilot and cabin crew member unfit for performing aviation safety related duties.
- (10) Hormonal contraceptives and hormone replacement therapy usually have no adverse effects and are compatible with performing aviation safety related duties.
- (11) Erectile dysfunction medication. This medication may cause disturbances in colour vision and dizziness. There should be at least 6 hours between taking sildenafil and performing aviation safety related duties duty; and 36 hours between taking vardenafil or tadalafil and performing aviation safety related duties duty.
- (12) Smoking cessation. Nicotine replacement therapy may be acceptable. However, other medication affecting the central nervous system (bupropion, varenicline) is not acceptable for pilots.
- (13) High blood pressure medication. Most anti-hypertensive drugs are compatible with performing aviation safety related duties. However, if the level of blood pressure is such that drug therapy is required, the pilot or cabin crew member should be monitored for any side effects before carrying

out performing aviation safety related duties. Therefore, consultation with the AME, AeMC, GMP, OHMP or medical assessor as applicable, is needed.

- (14) Asthma medication. Asthma has to be clinically stable before a pilot or cabin crew member can return to performing aviation safety related duties. The use of respiratory aerosols or powders, such as corticosteroids, beta-2-agonists or chromoglycic acid may be compatible with performing aviation safety related duties. However, the use of oral steroids or theophylline derivatives is incompatible with performing aviation safety related duties. Pilots or cabin crew members using medication for asthma should consult the AME, AeMC, GMP, OHMP or medical assessor, as applicable.
 - (15) Tranquillisers and sedatives. The inability to react, due to the use of this group of medicines, has been a contributory cause to fatal aircraft accidents. In addition, the underlying condition for which these medications have been prescribed will almost certainly mean that the mental state of a pilot or cabin crew member is not compatible with performing aviation safety related duties.
 - (16) Sleeping tablets. Sleeping tablets dull the senses, may cause confusion and slow reaction times. The duration of effect may vary from individual to individual and may be unduly prolonged. Expert aero-medical advice should be obtained before using sleeping tablets.
 - (17) Melatonin. Melatonin is a hormone that is involved with the regulation of the circadian rhythm. In some countries it is a prescription medicine, whereas in most other countries it is regarded as a 'dietary supplement' and can be bought without any prescription. The results from the efficiency of melatonin in treatment of jet lag or sleep disorders have been contradictory. Expert aero-medical advice should be obtained.
 - (18) Coffee and other caffeinated drinks may be acceptable, but excessive coffee drinking may have harmful effects, including disturbance of the heart's rhythm. Other stimulants including caffeine pills, amphetamines, etc. (often known as 'pep' pills) used to maintain wakefulness or suppress appetite can be habit forming. Susceptibility to different stimulants varies from one individual to another, and all may cause dangerous overconfidence. Overdosage causes headaches, dizziness and mental disturbance. These other stimulants should not be used.
 - (19) Anaesthetics. Following local, general, dental and other anaesthetics, a period of time should elapse before returning to performing aviation safety related duties. The period will vary considerably from individual to individual, but a pilot or cabin crew member should not perform their duties for at least 12 hours after a local anaesthetic, and for at least 48 hours after a general, spinal or epidural anaesthetic (see MED.A.020).
- (e) Many preparations on the market nowadays contain a combination of medicines. It is, therefore, essential that if there is any new medication or dosage, however slight, the effect should be observed by the pilot or the cabin crew member on the ground prior to performing aviation safety related duties. It should be noted that medication which would not normally affect pilot or cabin crew performance may do so in individuals who are 'oversensitive' to a particular preparation. Individuals are, therefore, advised not to take any medicines before or during flight unless they are completely familiar with their effects on their own bodies. In cases of doubt, pilots and cabin crew members should consult an AME, AeMC, GMP, OHMP or medical assessor, as applicable.
- (f) Other treatments

Alternative or complementary medicine, such as acupuncture, homeopathy, hypnotherapy and several other disciplines, is developing and gaining greater credibility. Such treatments are more acceptable in some States than others. There is a need to ensure that 'other treatments', as well as the underlying condition, are declared and considered by the AME, AeMC, GMP, OHMP or medical assessor, as applicable, for assessing fitness.