



# Operations Advice Notice

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## Medication — Guidance for Pilots

### 1. Introduction

- 1.1. Any medication can cause side effects, some of which may impair the safe performance of flying 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 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 flying 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 in deciding whether expert medical advice by a Registered Medical Practitioner is needed.
- 1.2. Before taking any medication and acting as a pilot, the following three basic questions should be satisfactorily answered:
  - (1) Do I feel fit to fly?
  - (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 fly?
- 1.3. Confirming the absence of adverse effects may well need expert medical advice.

### 2. Medicines and Compatibility with Flying

- 2.1. The following are some widely used medicines with a description of their compatibility with flying 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 is not fit to fly and should obtain expert medical advice.
  - (2) Anti-malaria drugs. The decision on the need for anti-malaria drugs depends on the geographical areas to be visited, and the risk that the pilot 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 flying 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 flying 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 flying, so that, if treatment is necessary, expert 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, dextromethorphan or pseudoephedrine which are not compatible with flying duties. However, mucolytic agents (e.g. carbocysteine) are well-tolerated and are compatible with flying duties.
- (5) Decongestants. Nasal decongestants with no effect on alertness may be compatible with flying duties. However, as the underlying condition requiring the use of decongestants may be incompatible with flying duties, expert 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 flying duties.
- (7) Common pain killers and antifebrile drugs.
  - (i) Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and paracetamol, commonly used to treat pain, fever or headaches, may be compatible with flying duties. However, the pilot should give affirmative answers to the three basic questions listed in paragraph 1.2 before using the medication and carrying out flying duties.
  - (ii) Strong analgesics. The more potent analgesics including codeine are opiate derivatives, may produce a significant decrease in human performance and, therefore, are not compatible with flying 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 for the pilot to seek a medical diagnosis and not to only treat the dyspeptic symptoms.
- (9) Anti-diarrhoeal drugs. Loperamide is one of the more common anti-diarrhoeal drugs and is usually safe to take whilst flying. However, the diarrhoea itself often makes the pilot unfit for flying duties.
- (10) Hormonal contraceptives and hormone replacement therapy usually have no adverse effects and are compatible with flying 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 flying duty; and 36 hours between taking vardenafil or tadalafil and flying 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 flying duties. However, if the level of blood pressure is such that drug therapy is required, the pilot should be monitored for any side effects before carrying out flying duties. Therefore, consultation with the specialist medical practitioner is needed.
  - (14) Asthma medication. Asthma has to be clinically stable before a pilot can return to flying duties. The use of respiratory aerosols or powders, such as corticosteroids, beta-2-agonists or chromoglicic acid may be compatible with flying duties. However, the use of oral steroids or theophylline derivatives is incompatible with flying duty. Pilots or cabin crew members using medication for asthma should consult a Registered Medical Practitioner.
  - (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 is not compatible with flying 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 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 Australia 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 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 flying. The period will vary considerably from individual to individual, but a pilot should not fly for at least 12 hours after a local anaesthetic, and for at least 48 hours after a general, spinal or epidural anaesthetic.
- 2.2. 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 on the ground prior to flying. It should be noted that medication which would not normally affect pilot 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 should consult a Registered Medical Practitioner.

### 3. Other treatments

Alternative or complementary medicine, such as acupuncture, homeopathy, hypnotherapy, and several other disciplines, is developing and gaining greater credibility. There is a need to ensure that 'other treatments', as well as the underlying condition, are declared to and considered by the Registered Medical Practitioner assessing fitness.



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