Recent changes to Annex 1 Medical Standards and Recommended Practices (SARPs)

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Plan

• Why the review was undertaken
• Council Areas of Specific Concern
  – Medical Assessor, Gynaecology, HIV
  – Need for more regular review
• Frequency & content of examinations
• Antidepressants
• Reporting of medical conditions to LA
• Insulin-treated diabetes

Why?

• Council Request
• Improve flight safety
• Changes in medical knowledge
  – Ensure ICAO SARPs and guidance material remain relevant
• Drive towards evidence-based regulation
  – Safety management principles
  – Performance based regulation
• Improve global harmonization
Actions

  - Chairman, Dr Jarnail Singh
- Initial review by ICAO Air Navigation Commission (November 2007)
- State Letter issued with proposals, requesting comments from States (May 2008)
- Proposals adjusted in light of comments from States
- Final Review by ANC (November 2008)
- Adoption by ICAO Council (March 2009)
- Applicability – November 2009

Council areas of specific concern - 1

- Medical SARPs had not been revised for many years, and the next review should take place within two years i.e. by 2007
- Variety of topics considered

Frequency and content of regulatory medical examinations

ICAO requires annual Class 1 examination from initial to age 60 years, for most commercial air transport pilots

BUT.....
Conclusion 1

- Physical disease is uncommon in under 40s
- The routine physical examination is not likely to detect disease of flight safety significance in the under 40 applicant
Conclusion 2

- Mental problems are more common than physical problems in under 40s

- And...
  - Depression and alcohol problems (and physical illness) are positively influenced by health education and lifestyle changes
Medical Cause Fatal Accidents

Worldwide medical cause fatal accidents 1980-2000

<table>
<thead>
<tr>
<th>Year</th>
<th>Aircraft</th>
<th>Medical problem</th>
<th>Confidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>DC 8</td>
<td>Schizophrenia *</td>
<td>High</td>
</tr>
<tr>
<td>1982</td>
<td>Citation</td>
<td>Alcoholic impairment *</td>
<td>High</td>
</tr>
<tr>
<td>1982</td>
<td>Metro</td>
<td>Vomiting (P2)</td>
<td>High</td>
</tr>
<tr>
<td>1983</td>
<td>Learjet</td>
<td>Use of marijuana (P1 &amp; P2)*</td>
<td>High</td>
</tr>
<tr>
<td>1988</td>
<td>Metro</td>
<td>Use of cocaine</td>
<td>High</td>
</tr>
<tr>
<td>1989</td>
<td>FH 227</td>
<td>Alcohol (P2)</td>
<td>High</td>
</tr>
<tr>
<td>1990</td>
<td>Learjet</td>
<td>Slurred speech, ? cause *</td>
<td>Medium</td>
</tr>
<tr>
<td>1993</td>
<td>Learjet</td>
<td>Alcohol/cocaine (P1)</td>
<td>High</td>
</tr>
<tr>
<td>1994</td>
<td>ATR 42</td>
<td>Suicide *</td>
<td>Low</td>
</tr>
<tr>
<td>1999</td>
<td>An 26</td>
<td>Alcohol (P1 &amp; P2) *</td>
<td>Medium</td>
</tr>
</tbody>
</table>

* Primary Cause

Conclusion 3

- Physical incapacitation is a rare cause of fatal accidents in two-pilot aircraft
Frequency and content of regulatory medical examinations

- **Proposal**
  - **Recommendation**, to reduce the emphasis on detecting physical conditions, whilst increasing the emphasis on health education and prevention, in under 40 Class 1 pilot applicant
  - **Note**, concerning guidance in Manual of Civil Aviation Medicine

Antidepressant medication

- Modern antidepressants have few side effects (drowsiness much less common)
- Australia and Canada report good results from controlled use
- ALPA study (1997-2001) found that of 1200 professional pilots diagnosed with depression who contacted their office:
  - 60% intended to continue flying (without taking recommended medication)
  - 15% intended to continue flying (taking recommended medication) but without declaring such medication
  - 25% intended to declare their medication and cease flying
Antidepressant medication

- **6.42.2.1. Recommendation** — An applicant with depression, being treated with antidepressant medication, should be assessed as unfit unless the medical assessor, having access to the details of the case concerned, considers the applicant’s condition as unlikely to interfere with the safe exercise of the applicant’s licence and rating privileges.

- **Note 1** — Guidance on assessment of applicants treated with antidepressant medication is contained in the Manual of Civil Aviation Medicine (Doc 8984).

Reporting of Medical Conditions

- **Proposal**
  - **Recommendation**, less prescriptive than current Recommendation, emphasizing role of Licensing Authority in providing guidance to applicant
  - **Note**, concerning guidance in Manual of Civil Aviation Medicine

Reporting of medical conditions

- **1.2.8.1.1. Recommendation** — License holders should inform the Licensing Authority of confirmed pregnancy or any occurrence in medical history of a duration of more than 30 days or which requires medical treatment with prescribed medication or which has required hospital treatment. States should ensure that license holders are provided with clear guidelines on medical conditions that may be relevant to flight safety and take in such distribution or publication from a medical examiner or Licensing Authority.

- **Note** — Guidance on physical and mental conditions and treatments that are relevant to flight safety should be provided in the Manual of Civil Aviation Medicine (Doc 8984).
Insulin treated diabetes

- **Note,** concerning guidance in Manual of Civil Aviation Medicine, for States wishing to certificate applicants using insulin

6.3.2.16 Applicants with insulin-treated diabetes mellitus shall be assessed as unfit.

- **Note.**— Guidance on assessment of Type 2 insulin treated diabetic applicants under the provisions of 1.2.4.8 is contained in the Manual of Civil Aviation Medicine (Doc 8984).

Council areas of specific concern - 2

- Medical assessor – clarification of rôle
  - Appointed by Licensing Authority
  - Ensure adequate performance (by training and auditing) of medical examiners
Medical Assessor- definition

1.1 Definitions

• Medical assessor. A physician, approved by the Licensing Authority, qualified and experienced in the practice of aviation medicine who evaluates medical reports submitted to the Licensing Authority by medical examiners and competent in evaluating and assessing medical conditions of flight safety significance.

• Note 1 — Medical assessors evaluate medical reports submitted to the Licensing Authority by medical examiners.

• Note 2 — Medical assessors are expected to maintain the currency of their professional knowledge.

Medical Assessor – rôle in DME evaluation/audit

1.2.4.8.1 Recommendation — The competence of a medical examiner should be evaluated periodically by the medical assessor

• 1.2.4.8.1.1 The medical examiner shall be required to submit verified medical information to the Licensing Authority to enable the Licensing Authority to conduct periodic medical assessments audits.

• Note — The purpose of such auditing is to ensure that medical examiners meet applicable standards for good practice medical practice and air medical fitness. Guidance on air medical fitness assessment is contained in the Manual of Civil Aviation Medicine (Doc 9999).

Council areas of specific concern - 2

• Gynaecological issues
Gynaecological issues

- **Gynaecological Issues**
  - Do not require specific mention – adequately addressed by reference to "genito-urinary tract" (G.3.2.19 etc)
  - Relevant paragraphs deleted

- **6.3.2.21** Applicants with gynaecological disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as until.

Council areas of specific concern - 3

- **Human Immunodeficiency virus**
  - Controversial
  - Therapy has greatly improved prognosis
  - WHO concerned that current SARPs do not:
    - Encourage HIV positive applicants to declare
    - Reflect modern thinking concerning potential recovery from AIDS defining illness
    - Reflect scientific evidence concerning HIV and depression

HIV

- **6.4.23** Applicants who are susceptible to human immunodeficiency virus (HIV) shall be assessed as until.

- **6.4.23A** Applicants who are susceptible to human immunodeficiency virus (HIV) shall be assessed as until.

- **Note 1:** Section of applicants who are susceptible to human immunodeficiency virus (HIV) require particular caution in their mental state, indicating pronounced effects of the disease. Such applicants shall be considered ill and shall be assessed as until.

- **Note 2:** Section of applicants who are susceptible to human immunodeficiency virus (HIV) is excluded in the Bureau of Civil Aviation Medicine (June 2009).
Summary

• Medical SARPs were in need of updating
• ICAO’s drive towards evidence based regulation, including:
  – Safety management principles
  – Performance based regulation
• Changes are mainly ‘permissive’, not mandatory
• Opposing States may change position with experience

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