Case Studies

CAA Day @ AMSNZ 2015
Dr Rajib Ghosh
Senior Medical Officer, Civil Aviation Authority New Zealand
MBBS, MD (Aerospace Medicine), DAvMed (UK), Grad Dip Occupational Medicine (Singapore), Grad Dip Business and Finance (Australia), MBA, MMIT
MSc (Human Factors Engineering), MPH (Occupational and Environmental Health)
FACaeSM, FIAMA, FAFOEM (RACP), Academician IAASM
Aviation Medicine Specialist and Occupational Medicine Specialist
Objectives

- Use a spectrum of case examples to address the compilation of discussion topics for today provided by many of you
- Direct you to resources where relevant, in particular, new resources that have been added
- Provide you with an appreciation of what we at CAA Aviation Medicine are looking out for, how we think and deal with some interesting, often recurring scenarios
- Have discussions such that we gain a better appreciation of your perspectives in the search for continual improvement
- In general, make things better and safer for the flying public of New Zealand
Themes: Slide 1/2

- Antihistamines and flying
- Anticoagulants and flying
- Head injury
- Clarity of requirements for AMC
- Online Medical Record System
- Cardiovascular risk assessment
- GME and CV risk timings
- Depression and anti-depressants
- Assessing mental health
- CAA NZ-CASA Harmonization
- Colour vision
- Vision and requirement for AMC
- Examining a close relative
Themes- Slide 2/2

- Blood pressure report
- Disposition of rare medical disorders e.g. genito-urinary tuberculosis, prolactinoma
- Aging pilot
- ICAO standards on preventive health
- Suspension triggered by findings during medical examination
- Suitable Specialists
- Modification to application form
- Notification regarding minor illnesses
Antihistamines and Flying
Allergic rhinitis

- Please refer Chapter 3 (Respiratory System), 3.12.18 on page 13
- Draft MIS
- Nasal sprays are preferred
- Loratadine, Desloratadine and Fexofenadine following a ground trial
- Other antihistamines must not be used within 48 h prior to flying.
Anticoagulants and Flying
Anticoagulants

- Aspirin, Warfarin, Dabigatran
- Warfarin: usually requires monthly INR with 3 of the last 4 readings within the therapeutic range of 2.0-3.5
- Starting off requires suspension/disqualification
Head Injury
Mild Head Injury: Assessment regarding fitness to fly

- GP notes
- ACC file: will usually have Concussion services report, hospital notes, CT scan, often Neuropsychology report
- Post-Concussion syndrome
- Your clinical impression in detail
- Possibly best to route the first application through the flexibility pathway
- Usually we get expert opinion (Neurologist)
Online Medical Certification System
OMCS: Status update

- Initially absorbed into a wider project
- RFI and RFP process review: high cost
- Now going through review
When do we ask for AMC?

- Does the client meet the standards?
- If in doubt, please ask us
- Can the same situation be managed appropriately through S27B(1) and S27B(2) pathways? (Illustration: non-normal ECG)
Easy with ECGs

How to deal with non-normal ECGs that are not normal variants
Is there a right or wrong?

- There are various right ways
- Our feedback does not mean you are wrong, sometimes we provide feedback so you are aware of quicker alternative pathways
- Cardiologist should provide guidance and not just repeat what the ECG machine-report states
Cardiovascular Risk Assessment
Key points

- Details in 2005 ME Newsletter
- Tool
- Test
- S27B(1) or S27B(2)
- Above age 70 for Class 2: CV risk each year, GME every two years...how do you deal with such seemingly different information
Discussion

- Is it ok to ask for AMC and extend old medical certificate if Stress ECG is abnormal?
- Is it ok to certify under S27B(1) if the CV risk is elevated but the Stress ECG raises no concerns?
- What test is done if the Stress ECG is positive?
- How does CAA deal with a Coronary Angiogram done by the Cardiologist for clinical reasons based on an abnormal Stress ECG?
- Do I need to Suspend/ Disqualify a previous medical certificate if the CV risk is now calculated as over 10%?
Mental Health
Mental Health: Depression

- Accept: Sertraline, Citalopram, and Fluoxetine
- Do not accept: Paroxetine, Venlafaxine, or other anti-depressant drugs
- Does this require AMC?
- GP notes
- Alcohol
CAA NZ CASA
Harmonisation
Status update

- A period of weekly teleconferences discussing complex cases; called off temporarily by CASA due to resource constraints
- Combined meetings continue every year, one at CAA NZ and one at CASA
- Each meeting generates new thoughts and approaches
- How long before one can fly after LASIK?
Colour Vision
Updates

- AMC
- GD Consultation (written submissions) has concluded
Disposal

**Class 1 and 2 Certificates:** In the special circumstances cited below, the applicant’s failure to meet any medical standards prescribed in the rules is such that the exercise of the privileges to which the Medical Certificates Classes 1 and 2 applied for relates would not jeopardise aviation safety.

**Special Circumstances**
The duration of the medical certificate is UNRESTRICTED.
The following limitations on the privileges, to which the Medical Certificate applied for relates, are imposed on the Medical Certificate:

**Class 1**
- Not valid for air operations carrying passengers; and
- Not valid for night flying; and
- Not valid for flight under Instrument Flight Rules; and
- Not valid for flight in the vicinity of a controlled aerodrome unless the aircraft is in radio contact with aerodrome control; and

**Class 2**
- Not valid for night flying; and
- Not valid for flight under Instrument Flight Rules; and
- Not valid for flight in the vicinity of a controlled aerodrome unless the aircraft is in radio contact with aerodrome control.

This Accredited Medical Conclusion is limited to the medical conditions set out in this letter.

**Note:**
The restrictions on the Medical Certificate can be reconsidered if the applicant can demonstrate that he has colour vision deficiency that is not of aeromedical significance; satisfactory demonstration may be achieved if he:
- Passes the Holmes-Wright lantern colour vision test unequivocally; or
- Passes the Farnsworth lantern (FALANT) colour vision test and has no result indicating a colour vision deficiency that is either protanopic or protanomalous in nature based on the Anomaloscope (Nagel or Neitz) colour vision test.
Vision and requirements for AMC
Vision

- Some changes in LASIK disposal
- Nature of eye condition
- Is it stable?
- Does the client meet the standards?
Examining a close relative
Guidance

- CAA does not have specific requirements
- Managing conflict of interest
- We believe that the Medical Council has guidelines
Forms

http://www.caa.govt.nz/medical/med_forms.htm
Discussion

- Is the headache investigation report used for all headaches or migraine only?
- What happens if an experienced veteran pilot does not meet the standards on audiogram and speech audiogram?
- Who requires a completed Respiratory Examination report?
- If a client is on a stable dosage of an acceptable antihypertensive for the last 10 years and has well-controlled blood pressure, do I need to complete the blood pressure examination report every year?
Rare cases

Genito-urinary tuberculosis

Prolactinoma
Approach

- Is the condition stable e.g. treated and recovered?
- Medication and their side effects
- The condition and any impact on flight safety
- Feel free to contact us at med@caa.govt.nz
- S27B(2) ideal
- Provide work-up
- If you are happy to be named “Medical Expert” please indicate your plan e.g. any surveillance?
Case Presentations

- Prolactinoma
  - Libido down +
  - Testosterone down
  - Prolactin up ++ > 8000
  - Hormones study ok
  - 1.5 cm macroprolactinoma
  - Indenting into the cavernous sinus
  - Chiasma Ok
  - Cabergoline
- nausea, vomiting, stomach pain, gas, indigestion, constipation;
- headache, depressed mood; dizziness, spinning sensation;
- drowsiness, nervousness;
- hot flashes; numbness or tingly feeling; or. dry mouth
- Sexual / gambling and other urges
Genito-urinary Tb

- Genito
  - Urinary symptoms
  - Diagnosed with Tb
  - Initiated on multiple therapy
  - Medication reduced after 2 months
  - No significant side effects
Aging pilot
Issues

- Form
- CV risk assessment
- Age alone in isolation is not a consideration
Preventive Health

ICAO
Position

- CAA is aware of the position paper
- No requirement from CAA at this stage
- We routinely highlight concerns to clients to discuss with their GP e.g. high cholesterol
- You may don your “doctor” hat but don’t mix that up with your “director” hat
Case Study

When opportunities cross our path!
What next?

The Future of Fatigue

- Expanding scope of Aviation Medicine
- Embracing Preventive aspects a step at a time
Suspension/Disqualification
Thoughts

- Can this be triggered by the medical examination as a part of an application for a medical certificate?
- If the outcome of an application is “unable” do I need to suspend/disqualify the client’s earlier but still valid medical certificate?
- Can I lift a Suspension by another colleague at my practice when the colleague is on leave?
- Who can lift a disqualification?
- Does the ME have a role to play when the disqualification can be lifted only by CAA?
Specialists
Resources

- CAA does not have a list of approved Specialists
- We do have consultants we seek opinion from e.g. Cardiology, Neurology, Psychiatry, Oncology, Addiction Medicine
- We may be aware of specific specialists in your area; please ask us, we will inform if we are aware
- The way to ask us is by sending an email to med@caa.govt.nz
- If you are aware of someone and we do not know, please free to inform us too
Continual Improvement

Suggestions regarding improving the application form
Process

- Any suggestions for improvement is welcome
- Please send these to med@caa.govt.nz
- There is a project underway to look at the application for a medical certificate (form) and it is now with legal and will eventually come up for consultation
Notification

Minor Illnesses
Outline

- Three MIS on this theme
- S27C obligation
- The client may fulfil his/her S27C obligation by notifying you (since you are the “Director”)
- You can exercise judgement but if in any doubt contact CAA for guidance
Questions and Discussions

Thank you