

Hints for Detecting Mental Health Problems During Routine Periodic Physical Examinations

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1. Clues that may be available before the examination begins:

- You may know something of the reputation of the applicant in the community.
- You may learn something from the applicant's interaction with your office staff.

Applicants with mental health problems may behave differently with office staff than with the examiner. Consider this if your staff points out behavioural problems or eccentricities.

2. Clues on Medical Certification form:

- The applicant's form contains careless or missing marks.

Obtain the correct or missing data and ask why the mistake was made.

- The class of certificate desired is not usual for this type of pilot.

Find out how flying fits into the applicant's lifestyle and plans.

- The applicant does not live or work locally.

Consider the type and stability of the applicant's occupation.

Discuss how the applicant came to pick you to do this examination.

- Previous examinations were not completed.

Was the applicant learning what to say or not say in order to pass?

- Previous problems prevented certification (medical or mental health history).
- Previous experience with health professionals was not adequately explained.
- Pilot has had personal counselling by mental health professionals or paraprofessionals.
- Pilot time is unusual or contains unexplained gaps.

Ask for explanation from a high-time pilot with no date of last examination.

- Medication history suggests significant illnesses that pilot did not note on the history questionnaire.

Obtain an adequate history.

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- Explanations for any medical history or findings do not make sense or seem illogical.

Remember Jones's Rule of Irrational Data: If you don't understand what a flier means, assume it's your problem. Ask again, clearly. If the flier tries hard to explain, you try hard to understand, and you still don't understand, it's probably the flier's problem. Find out what it is. Possibilities include simple misunderstandings, English as a second language, educational deficiencies, cultural differences, limited intelligence, neurological problems, or psychiatric problems.

3. Clues obtained during the physical examination:

- Note anything markedly different from what you usually see in pilots: trust your instincts.
- Assess the nature of the applicant's motivation to fly (Jones, 1986). Err on the side of caution.

Watch for applicants who want to be fliers rather than who want to fly. Some see themselves as alienated from others, or inept, or weak, and wish to acquire the attributes they perceive to be those of fliers: gregarious, competent, and strong.

Watch for applicants who want to fly in order to prove fearlessness.

Watch for applicants whose only knowledge of flying is childish fantasy.

- Look for scars without explanation obtained by history. Palpate scalp and skull for evidence of old head injury.

Watch for applicants whose collection of scars reflects personal recklessness.

- Watch for applicants who are evasive about surgical scars or head injury scars. Ask about significant loss of consciousness or amnesia if pilot did not report the injury on the 8500-8.
- Observe other pertinent physical factors bearing on mental status (e.g., dress, grooming conduct, alcohol on breath, needle tracks, tattoos that suggest sociopathy, slash scars on wrists, spider nevi, hepatomegaly, blood pressure, heart rate, pupils).
- Talk with applicants before, during, and after the physical examination—inquire about home, work, education, military, or flying. Trust your judgment if you feel uneasy.

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- Inquire about non-prescription medications, herbal remedies and dietary supplements.

Such information may be aeromedically significant because of the nature of these remedies, or because of the symptoms for which the pilot feels they are necessary. Taking St. John's Wort may indicate the presence of depressive symptoms, for instance.

4. What to do when you have finished:

- Ask enough questions to clarify troublesome issues.
- Obtain indicated medical data.
- If anything you encounter raises clinical questions about the applicant's mental status, or even if you find yourself feeling uncomfortable without knowing exactly why, perform a brief mental status evaluation, using some or all of the items in the [Formal Mental Status Examination](#) (MSE) that follows.

Note that some clinical MSEs, such as the Mini-Mental Status Examination, assess only the Sensorium rather than the entire mental status of a person.

- If you find anything that indicates clinical problems, consider necessary specialty consultations. Again, trust your judgment as an examiner, even if you can't exactly define what's wrong.
- Mention equivocal items in "Comments" section of Original or Renewal form for the record, even if you grant the certificate. Your data will be on record if the item arises in future examinations.
- If in doubt, call CASA AVMED for advice.
- If in serious doubt, defer; let CASA decide.
- As a last resort: make a "Don't quote me" call to the medical authority.

Formal Mental Status Examination

AMSIT (Appearance, Mood, Sensorium, Intelligence, Thought) is adapted from a formulation by David Fuller, MD, as presented in R.L. Leon, MD. *Psychiatric Interviewing: A Primer*. Ed 2, New York; Elsevier/Science Publishing Co. 1989.

Appearance, Behaviour, and Speech

- **Physical Appearance:** apparent age, sex, and other identifying features. Appearance of being physically ill or in distress; and a careful description of the patient's dress and behaviour.
- **Manner of Relating to Examiner:** placating, negativistic, seductive; motivation to work with examiner.
- **Psychomotor Activity:** increased or decreased, including jumpiness, jiggling, tapping, looking at watch, etc. Is the person hyperactive or lethargic?
- **Behavioural Evidence of Emotion:** tremulousness, perspiration, tears, clinched fist, turned-down mouth wrinkled brow, etc.
- **Repetitious Activities:** mannerisms, gestures, stereotypy, "waxy flexibility," compulsive performance of repetitious acts.
- **Disturbance of Attention:** distractibility, self-absorption.
- **Speech:** *description*—volume, rate (pressured or slowed), clarity, spontaneity and *disturbances*—mutism, word salad, perseveration, echolalia, affectation, neologisms, clang speech.

Mood and Affect

Note: "Mood is to Affect as Climate is to Weather."

- **Mood:** use adjectives: *mild* (it's there), *moderate* (it needs treatment), or *severe* (it needs treatment today!). Consider depression, elation, or other sustained emotions such as anger, fear, or anxiety.
- **Affect:** its range, intensity, lability, and appropriateness to immediate thought. To describe a normal, stable emotional status, say something like "The examinee's mood is euthymic. Affect is unremarkable in range, intensity, and stability, and is appropriate to material being discussed."

Sensorium

- **Orientation:** for time, place and situation.
- **Memory:** *immediate* (digits recall), *recent* (three items for 10 minutes, current events) and *remote* (history).

Formal Mental Status Examination

- **Calculating Ability:** serial 7's, 11 times 13 out loud (valid only if patient is adequately educated).
- **Concentration:** spell *WORLD* backwards, then arrange its letters alphabetically. Repeat with *EARTH*.

Intellectual Function

Estimate current level of function as *above average*, *average*, or *below average* based on general fund of information, vocabulary, and complexity of concepts. Do not confuse *intelligence* with *education*. Can the examinee handle abstract ideas, reason by analogy, “make the connection” in conversation? Is the examinee about as smart as the examiner?

Thought

- **Coherence:** clear thoughts may be expressed incoherently.
- **Logic:** even clear, grammatical speech may express illogical thoughts.
- **Goal Directedness** (has a point and makes it): tangential or circumstantial thought.
- **Disturbance of Attention:** distractibility (interrupts own sentences), self-absorption.
- **Associations:** loose associations, blocking of obvious ideas or connections, flight of ideas.
- **Perceptions:** hallucinations (false perceptions), illusions, depersonalisation, distortion of body image.
- **Delusions:** false interpretations of real situations.
- **Other Content:** noteworthy memories, thoughts and feelings; suicidal or homicidal intent.
- **Judgement:** formal (specific set-piece situations such as “mailing a letter you find on the street”), social (how examinee behaves with examiner, how he or she “reads” other people—predictable, reasonable, comfortable).
- **Abstracting Ability:** ask pilot to define similarities/differences between *tree-bush*, *child-midget*, *king-president*, *character-personality*. This is more reliable than interpreting proverbs (stitch in time, bird in the hand).
- **Insight:** understanding of any personal dysfunction affecting self or others, and its need for treatment. Insight is *lacking* if there is an unacknowledged problem, *superficial* if it is only acknowledged (“It is a problem.”), *moderate* if it is personalized (“I have a problem”), and *profound* if “It’s my problem, and it’s up to me to fix it.”