

What's so Special about Special Issuances?

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**Presented by AOPA's
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Welcome!

How did you hear about this Webinar?

- A. AOPA Pilot magazine
- B. ePilot newsletter
- C. Email invitation
- D. Previous medical webinar



FAR 61.53

- Perhaps one of the most important regulations
- It is the “self-certification” mechanism that places the burden on pilots to determine eligibility each time they fly.
- Generally, is not challenged by the FAA, (but there are exceptions!)



FAR 61.53



“...A person who holds a medical certificate...shall not act as pilot in command...while that person:

(1) Knows or has reason to know of any medical condition that would make the person unable to meet the requirements for the medical certificate necessary for the pilot operation; or...



Diamond DA20 Eclipse

FAR 61.53

(2) Is taking medication or receiving other treatment for a medical condition that results in the person being unable to meet the requirements for the medical certificate necessary for the pilot operation.

Medications-OTC's and Rx:

FAR 91.17(a):

“No person may act or attempt to act as a crew member of a civil aircraft while using any drug that affects the person’s faculties in any way contrary to safety.”



Questions



The Mandatory 15 Disqualifying Illnesses

- Specified in the Medical Standards, FAR Part 67, and are disqualifying by “medical history or clinical diagnosis”.



Cessna Grand Caravan

The 15 Disqualifying Illnesses

1. **Personality disorder manifested by overt acts**
2. **Psychosis**
3. **Bi-polar disorder**
4. **Alcoholism**
5. **Substance dependence**
6. **Epilepsy**



The 15 Disqualifying Illnesses

7. Myocardial Infarction
8. Angina Pectoris
9. Coronary artery disease that has required treatment, or, if untreated, has been symptomatic or clinically significant.



The 15 Disqualifying Illnesses

- 10. Pacemaker implantation
- 11. Cardiac valve replacement
- 12. Heart replacement



Piper Cherokee Six

The 15 Disqualifying Illnesses

13. **Diabetes mellitus requiring oral hypoglycemic medication or insulin for control**
14. **Disturbance of consciousness without explanation**
15. **Transient loss of nervous system control (*stroke or TIA, TGA?*)**



Special Issuance Authorizations

- The FAA “practices” regulatory medicine, not clinical medicine.
- Your treating physician may not agree with what the FAA is asking for, but your treating physician doesn’t issue your medical certificate!
- If the FAA asks for something, it’s needed for medical certification decision-making.



Diamond DA42

Subpart E FAR 67.401 considerations

- It's discretionary; the FAA issues it, and the FAA can take it away.
- Most authorizations are valid for one year, depending upon the class and medical condition.
- Conditions can change adversely during that time.



Beechcraft Baron

Subpart E FAR 67.401 considerations

“In granting an Authorization, the Federal Air Surgeon may do any or all of the following:

- Limit the duration of an Authorization;
- Condition the granting of a new Authorization on the results of subsequent medical tests, examinations, or evaluations.

Cessna 206 Stationair

Subpart E FAR 67.401(e)

“In determining whether an Authorization....should be granted to an applicant for a third class medical certificate, the Federal Air Surgeon considers the freedom of an airman exercising the privileges of a private pilot certificate, to accept reasonable risks to his or her person and property that are not acceptable in the exercise of commercial or airline transport privileges, and, at the same time, considers the need to protect the safety of persons and property in other aircraft and on the ground.”



SODA vs. Authorization

Statement of Demonstrated Ability (waiver) is issued for “static” or non-progressive conditions.

Authorizations are issued for more serious conditions that could progress or change adversely during the time the certificate is valid.



Piper J3 Cub

Questions



Cardiac Special Issuance

FAR 67.311(a) No established medical history or clinical diagnosis of any of the following:

“(3)...Coronary artery disease that has been treated or, if untreated, has been symptomatic or clinically significant.”



“...Coronary artery disease that has been treated or, if untreated, has been symptomatic or clinically significant.”

Clinically significant:

- **Abnormal exercise stress with ST segment change of >1.0mm;**
- **Abnormal radionuclide perfusion scan;**
- **Angiographic evidence of untreated obstructive disease sufficient enough to likely produce incapacitation, or;**
- **Any combination of the above**

Cardiovascular Evaluation

- **Following a cardiac event and/or treatment, a cardiovascular evaluation is required. The evaluation includes:**
 - **Six months stabilization and recovery**
 - **Complete medical records**
 - **Cardiac and general physical exam**
 - **Blood lipid panel**
 - **Graded exercise treadmill test, and possibly,**
 - **A radionuclide treadmill exercise test**

Graded exercise treadmill test

- Bruce Protocol (*there are others, but FAA prefers this one*)
- 3 stages - 3 minutes each
 - Stage I - 1.7 mph 10% grade
 - Stage II - 2.5 mph 12% grade
 - Stage III - 3.4 mph 14% grade



Graded exercise treadmill test

- **Completion of 3rd stage (9 minutes);**
 - **Achievement of 100% of maximal predicted heart rate (220 minus age),**
 - **85% “symptom-limited” maximum acceptable**
 - **“Chemical” test also allowed if explained**
 - **No beta blockers or Ca channel blockers**

Why is the FAA so picky about stress testing?

- Patients who reach these “end points” have a 99% chance of surviving one year;
- A 94% chance of surviving four years.



Sensitivity and Specificity

- **Sensitivity** indicates the proportion of patients with disease who have a positive test.
- **Interest** is in knowing the likelihood of disease in people with a positive test.



Piper Meridian

Sensitivity and Specificity

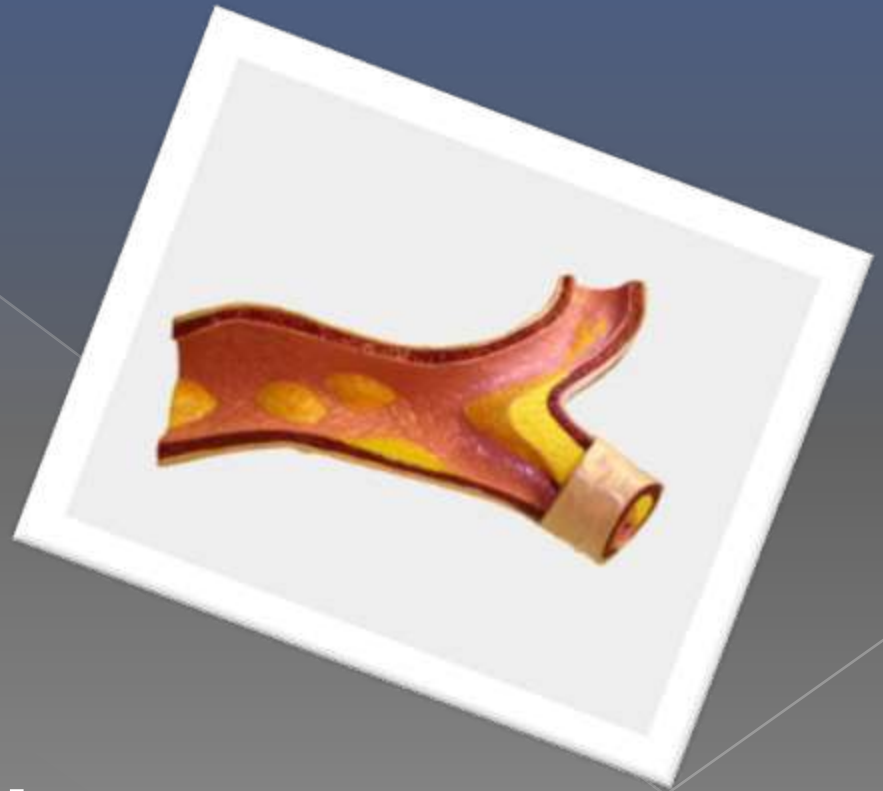


Mooney

- **Specificity tells us what proportion of healthy people have a negative, or normal, test.**
- **We're interested in knowing what is the likelihood of disease in a person with a negative, or normal, test.**

The "I" Word: *Ischemia*

- The absence of blood supply to the heart muscle, attributable to coronary artery disease.
- Is usually detected during exercise testing, but may be present at rest.
- Its presence is the benchmark used by the FAA to assess risk for incapacitation.



Radionuclide Perfusion Scan

- “Gold standard” for FAA certification.
- Indicates the quality of blood supply being delivered to myocardium (heart muscle).
- More “sensitive” than GXT
- Different measures than coronary *angiography*, which is the cardiologist’s and heart surgeon’s “gold standard”, and reveals the anatomy of the coronary arteries and their ability to move blood.

“Fixed Defect” versus “Reversible Defect”

- Scarring from infarction may result in an area of muscle that gets no blood supply at rest or during exercise stress. The radioisotope doesn't readily perfuse into scarred, non-viable myocardium.
- In viable tissue, isotope-charged blood will perfuse at rest, but not during exercise stress because of occlusive disease.
- What is “peri-infarct” ischemia?



Acceptable Medications

- **Anti-arrhythmics: Rythmol, Cordarone, Calan, Cardizem, Tambocor**
- **Antihypertensive agents:**
- **ACE-inhibitors, alpha-blockers, angiotensin receptors, beta-blockers, calcium channel blockers, diuretics**
- **Lipid lowering drugs-Crestor, Lipitor, Zocor, Pravachol, Vytorin, and most other statins**
- **Nutritional supplements (CoQ10, Niacin)**



Unacceptable medications

- **Nitrates: Isosorbide, Imdur, Isordil, Nitrostat, Nitrodur. Used to relieve angina.**
- **Vasodilators relax the vascular smooth muscle and dilate coronary arteries, artificially increasing the cross-sectional luminal area of coronary arteries to improve blood supply.**



Pacemakers

- **Current policy allows even those who are pacemaker dependent to be considered for 3rd class**
- **Non-dependent certification for all classes**
- **Requires CVE, plus Holter monitor, and periodic pacemaker surveillance checks**
- **Authorizations usually valid for six months**



Automatic Implantable Cardiac Defibrillators (AICD)

- **Marketed now for patients who have experienced a first cardiac event and who are at risk for subsequent events**
- **Available as stand alone or with pacemaker component**
- **Not currently allowed under FAA policy, (but there are exceptions).**

Valve Replacement

- **Tissue and mechanical valves.**
- **Anticoagulation with warfarin (Coumadin) is acceptable (and required for mechanical valves w/ INRs 2.5-3.5).**
- **Single valves only-No double valve replacements are being certified.**
- **6-month recovery and stabilization for replacement.**
- **CVE, with 2D echo, Holter monitor, GXT**



Cardiomyopathy

- **Disease of heart muscle tissue**
- **Increasing incidence. Likely due to numerous sub-types identified in recent years.**
- **Higher risk of sudden incapacitation-(Sudden Cardiac Death) usually from arrhythmia.**
- **LV function impairment with 20-40% EF (Normal >50%)**

Questions



Tips for more efficient processing

- **Know about your condition and what the FAA requires before starting the process**
- **Provide exactly what the FAA requires:**
 - Admission H&P
 - Operative reports
 - Pathology reports
 - Labs
 - Diagnostic test results
 - Discharge Summary
 - All required current testing/status reports
- **Lengthy delays can result from incomplete information**

Tips for efficient processing

- Expect delays and you may be surprised
- No fancy binders or notebooks
- Records arranged chronologically by date
- PI# or name, address, DoB on each page
- Send the information yourself!!!
- Follow authorization letters to the letter for next renewal.



Sport Pilot

- Self certification with a valid state drivers license and no knowledge of a medical condition that would make you unable to safely operate . . .
- But there is a still that catch - - -





Remos GX

Sport Pilot

- Your most recent medical certificate or special issuance must not have been
 - denied,
 - suspended,
 - or revoked!

AOPA's Medical Services Program

Essential Level

- **Periodic follow up with the FAA to track the progress of your case through the review process**

Comprehensive Level

- **Periodic status inquiries as with Essential, PLUS review of your medical records before they're sent to the FAA.**
- **Ensures that everything the FAA needs is included, and that the review will result in issuance of a medical certificate.**





AOPA's Medical Services Program

- Enroll online
<http://www.aopa.org/info/certified/medical/index.html>
- Or call AOPA 1-800-USA-AOPA (872-2672)



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Ercoupe LSA

Final Questions

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www.aopa.org/members/pic/webinars.html
- More medical info is online
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