

# Federal Air Surgeon's Medical Bulletin



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## From the Federal Air Surgeon: Welcome to the first Federal Air Surgeon's Bulletin of 2021! *by Susan E. Northrup, MD, MPH*



First, let me thank you all for your dedication to the safety of the National Airspace! In the early phases of COVID-19, we took steps to keep our pilots and air traffic controllers out of physician's offices as the medical system responded to the evolving public health crisis. The Office of Aerospace Medicine (OAM) worked closely with counterparts in the FAA, ICAO, and pilot groups to grant a one-time extension of the Airman Medical Certificates expiring between March 2020 and January 2021. As more Aviation Medical Examiners reopened with public health measures in place, we have begun sun-setting those measures. We couldn't have done this without you!

On the airman certification front, Dr. Brett Wyrick, as the Acting FAS, led a very successful Airman Medical Certification Summit in November that was attended by industry partners, pilot advocacy groups, and key members of the OAM's certification process. As you can imagine, no one was reticent with their observations and recommendations! We learned from the exchange and are moving forward with several key initiatives ranging from improving our letters to exploring new CACIs. There will be more to come in future columns.

On the COVID-19 front, OAM has been very busy! The policy on AME dispositions for airmen who are either infected with COVID-19 or recovered from it will be released soon. Please watch your AMCS message windows and the Go AME page. In addition, we will continue to evaluate each new vaccine as they receive FDA Emergency Use Authorizations and publish guidance regarding any grounding timeframes in the same venues.

As I transition to the FAS position, I want to publicly thank Dr. Michael Berry and Dr. Brett Wyrick for their leadership over the past year. OAM is a vibrant place to be due to Dr. Berry, Dr. Wyrick, and the entire Aerospace Medicine Team.

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## Question from an AME in AK

by Bruce A. Wright, PhD, CAsP



### Question:

I have a 37 year old part 135 pilot in her first trimester of pregnancy. She is flying an unpressurized Turbine Otter but occasionally going to 10,000 ft (Denali/Mt McKinley) to clear passes. Can you provide any advice concerning the hypoxia effects? The mountain climbers tell her their gouge is less than 12,000 ft for less than 30 minutes is ok.

### Answer:

At an airliner's cabin altitude of about 8000 ft, the normal hemoglobin oxygen saturation (Hb-sat) is about 90-93%, and even in her Turbine Otter at 10,000 ft the normal Hb-sat should still be about 85-87%. At these moderate altitudes (the aerospace physiologists typically call sea level to 10,000' the physiologic or compensatory zone) the healthy body is remarkably capable of compensating for a slightly lower partial pressure of oxygen so the exposure should be uneventful. The body accomplishes this through a combination of increased rate & depth of breathing (which lowers the partial pressure of carbon dioxide), and increased heart rate and cardiac output which increases oxygen delivery to the tissues. However, a pregnant pilot should also be looking for her personal signs and symptoms of hypoxia and should be prepared to descend or get on supplemental oxygen if they appear. Furthermore, the increased oxygen carrying capacity of fetal hemoglobin, combined with increased fetal hematocrit, results in fetal oxygen saturation changing very little at these moderate altitudes. Indeed, there is an abundance of research data from air medical workers, flight attendants, and women living at high altitudes which agree that there is little evidence that chronic exposure in either commercial aircraft, or living at 10,170 ft (3100 m), causes significant pregnancy-related problems (see reference list below).



Another suggestion for pilots operating near or above the upper end of the physiologic zone would be to attend physiological training. Has she ever experienced her personal hypoxia symptoms in an altitude chamber, or a normobaric simulation? Knowing what her personal symptoms are, and being able to treat them if they are recognized in the aircraft would be her first line of defense against hypoxia. If your pilot is still concerned about the impact of flying at 10,000 ft on her baby, a portable O<sub>2</sub> assembly would be relatively cheap insurance for those few flights. Several aviation supply web sites offer

6 cu.ft. systems (including the regulator, cannula, or oro-nasal mask) which would last over 5 hrs at 15,000 ft for about \$500.

Another device which could increase your margin of safety would be to wear a pulse-oximeter during flights above 5,000 ft. We use them all the time in the FAA's hypoxia demonstrations in the altitude chamber and PROTE flights, and they are a great way to provide additional objective information concerning the hypoxic event. The pulse-ox could also give you a little peace of mind if you know your saturation is still close to 90%. There are many examples of stand-alone pulse-ox devices on the market, some versions have integrated displays and there are even wireless versions which can send data to your smart phone so you can track your Hb-sat over time. NOTE: these pulse-ox devices have many operating limitations and are known to become very inaccurate when there is poor peripheral circulation – especially when the hands are cold. Caution is still advised.



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*Dr. Wright is an Aerospace Physiologist in the Aerospace Medical Education Division.*

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## Case Report: Colon Cancer

*By Gary N. Toups, MD*

#### **Abstract:**

The estimated number of new colon and rectal cancer cases in the United States in 2016 is nearly 135,000. It is also estimated over 49,000 deaths will occur this same year from the disease. The lifetime risk for Americans is about 1 in 21 (4.7%) for men, and 1 in 23 (4.4%) for women. The 5-year survival rate is about 65%. The median age at diagnosis is 69 in men and 73 in women.<sup>1</sup> Modern treatments to include surgery, adjunctive chemotherapy and radiation have increased the survival rate in these individuals. This article presents the case of a third class pilot who was diagnosed with colon cancer, and the resulting aeromedical concerns following surgery, chemotherapy and use of medications.

#### **History:**

This is the case of a 54-year-old male, 3rd class pilot with 285 hours of flight time. He had a remote history of head injury, for which he required special issuance in the past. He had since been cleared from the requirement for special issuance. More recently, he was diagnosed with rectal adenocarcinoma in 2014. His disease was initially considered inoperable, and treated with neoadjuvant 5-FU and radiation therapy. He subsequently received two cycles of FOLFOX (folinic acid, 5-FU, and oxaliplatin), and then in

April 2015 had a rectosigmoid colectomy, cystectomy, and prostatectomy at the Mayo Clinic. Pathology showed a low-grade, stage IIA (T3N0) adenocarcinoma. He had 8 subsequent cycles of FOLFOX in the adjuvant setting. During follow-up in April, 2016, he was found to be free of GI symptoms and generally doing well. He did not have an ostomy. He had completed his chemotherapy. CBC was essentially normal. Carcinoembryonic antigen (CEA) was apparently drawn, but still pending at the time of the report (and not included). Follow-up imaging showed some wall thickening adjacent to the transverse colon, and his oncologist recommended further follow-up imaging since metastatic disease could not be ruled out. Additionally, his list of medications included lomotil (diphenoxylate/atropine).

Application for his 3rd class FAA medical certificate in June 2016 resulted in a general denial by the FAA for his history of colon cancer, specifically for the use of the unacceptable medication lomotil. The Aerospace Medical Certification Division (AMCD) requested the following: 1) current status h/o colorectal cancer to include the dates that the FOLFOX therapy was started and discontinued, 2) the results of a current PET/CT (due to the transverse and distal colon wall thickening) and 3) results of current CEA.

In subsequent correspondence, the airman was initially resistant to getting further imaging, stating he was cancer free after surgery. He also indicated he had stopped the use of lomotil.

### ***Aeromedical concerns:***

Colorectal cancer is disqualifying under Title 14 of the Code of Federal Regulations (14 CFR) part 67. Per the explanation of item 38 of the Guide for Aviation Medical Examiners (AME Guide): "Medical certificates must not be issued to an applicant with medical conditions that require deferral, or for any condition not listed that may result in sudden or subtle incapacitation without consulting the AMCD or the Regional Flight Surgeon".<sup>2</sup> Of significant concern with colorectal cancer is the potential for sudden or subtle incapacitation in untreated or progressive disease from emergent obstruction or perforation. Additionally, the disease can cause chronic anemia which has a more insidious presentation and can cause problems during flight if undetected. Chemotherapeutic drug adverse effects from the components of FOLFOX include bone marrow suppression. The resultant anemia, neutropenia, and thrombocytopenia can lead to fatigue, increased susceptibility to infection, and easy bleeding. Another adverse effect is severe diarrhea, which can lead to dehydration.<sup>3</sup> Lomotil is a combination of an opiate (diphenoxylate) and atropine used to decrease gut motility in the treatment of diarrhea. Neither is allowable for active flyers due to potential effects on cognition, cardiac function, and vision. Specifically, atropine is anticholinergic, and diphenoxylate is a DEA schedule V substance, with potential for sedation.<sup>4</sup>

### ***Role of the AME:***

The sections of Title 14 of the Code of Federal Regulations (CFR) which apply in the case of colorectal cancer are Parts 67.113, 67.213, and 67.313. These parts specify there must be no organic, functional, or structural disease, defect, or limitation existing that makes the person unable to perform the duties or exercise the privileges of the airman certificate held or applied for. Additionally, it specifies that medications and treatments must not make the person unable to safely perform duties or exercise the privileges of the airman certificate.<sup>2</sup>

The AME Guide, and namely the disposition tables, specify the requirement for submission by the AME and the airman for consideration of a Special Issuance. In general, all pertinent medical records, operative/pathology reports, current oncological status, and a current CEA and CBC are required. Initial issuance requires decision by the FAA, and must be deferred by the AME. If appropriate, follow-up issuance may be by the AME Assisted Special Issuance (AASI) protocols.<sup>6</sup>

Although not applicable to this airman for his initial Special Issuance, his AME could issue in the future if the applicant provided 1) an Authorization granted by the FAA, 2) an update of the status of the malignancy since the last FAA medical examination, to include the results of a current (performed within

last 90 days) CEA, if a baseline value is available. The Examiner must defer to the AMCD or RFS if there has been any progression of the disease, an increase in CEA, or if any new treatment is initiated.<sup>7</sup>

**Outcome:**

At the time of this writing, the airman provided the result of another imaging study (CT scan), which again indicated wall thickening of the distal colon. The radiologist attributed this to post-surgical and radiation changes, and stated there was no evidence of disease recurrence. CEA was in the normal range at 1.2 ng/mL. A current status note by his oncologist indicated ongoing remission of his disease. He was no longer using lomotil to control diarrhea. The inclusive dates of chemotherapy with FOLFOX were not included as requested.

It is likely the airman will be certified once the FAA's requests are fully complied with. This underscores the responsibility of the airman and the AME to follow the FAA's instructions and any subsequent information requests verbatim.

**[Sidebar] Colorectal Cancer:**

The estimated number of new colon and rectal cancer cases in the United States in 2016 is nearly 135,000. It is also estimated over 49,000 deaths will occur this same year from the disease. The lifetime risk for Americans is about 1 in 21 (4.7%) for men, and 1 in 23 (4.4%) for women. The 5-year survival rate is about 65%. The median age at diagnosis is 69 in men and 73 in women.<sup>1</sup> Modern treatments to include surgery, adjunctive chemotherapy and radiation have increased the survival rate in these individuals. Currently, the USPSTF recommends screening for colon cancer using fecal occult blood testing, sigmoidoscopy, or colonoscopy in adults beginning at age 50 years and continuing until age 75 years. Screening should begin at age 40 for those with first-degree relative with colon cancer and the interval is every five years if that first-degree relative was less than 60 when diagnosed.<sup>7</sup>

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*Gary N. Toups, MD, is board certified in Family Medicine and Undersea and Hyperbaric Medicine. He retired from the U.S. Air Force in 2014, and is currently in fellowship training at the Aerospace Medicine Fellowship Program at Mayo Clinic in Rochester, Minnesota. This report was written while rotating at the FAA's Civil Aerospace Medical Institute.*

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## **Case Report: Bipolar Disorder**

**By Lucky Lusterio, DO, MPH, Capt, USAF, MC, FS**

### **Introduction:**

Bipolar spectrum disorders affects 5.7 million people (about 2.6%) of the United States population.<sup>1</sup> Included in this spectrum of conditions are Bipolar I disorder, Bipolar II disorder and cyclothymic disorder.<sup>2</sup> Given the risk of impaired judgment and incapacitation, this disease is listed in the FAA Aviation Medical Examiner Guide as one of the fifteen Disqualifying Medical Conditions that must be deferred to the FAA or disqualified by the Aviation Medical Examiner.

### **Case:**

Patient is a 27 year old male, Certified Public Accountant that presents for his third class medical certificate. He was evaluated by a new aviation medical examiner (AME). He stated that in college he was diagnosed with Bipolar II disorder, but then commented that he doesn't have the condition. His narrative stated that during college, he went through periods of depression where he was treated. The airman was suffering from periods of depression and disinterest in all of his activities. He presented to the student health center and was started on Setraline 50 mg which controlled his symptoms. It further noted that during his final exams, he would go from a low mood to a high mood with a feeling that he could accomplish anything. He would be able to go with little sleep and be able to accomplish papers and projects at a neck breaking pace. He was hyper-irritable during this time and would have trouble with dating. His ex-girlfriends would state that they could not tolerate speaking with him since he would stop them midsentence and attempt to finish their sentences. After three failed relationships, he returned to the student health center for further workup; subsequently, he was referred to a psychiatrist for further evaluation. The psychiatrist stated that the periods of elevated mood fit the diagnosis of hypomania. Given this diagnosis plus his history of major depression disorder, the psychiatrist stated that the patient had Bipolar II disorder. The report revealed that the patient at the time was in that hyper-irritable state and stormed out his office threatening, "I am going to sue you if you place that in my medical record." He has not seen psychiatry in almost a decade but had been prescribed Setraline by his family physician to control the depression.

The patient is highly motivated and wants to get his private pilot license since he wants to buy an airplane in the near future. Although he states he is still taking Setraline to control his low moods, he states that the elevated moods have helped him at the accounting firm especially during tax time. He affirms that he doesn't have Bipolar disorder but he stated that he wanted to "come clean" and bring all related medical records so that he can get approved.

He has no significant medical history aside from this diagnosis. The only medication that he is on is Setraline daily since he was 19. Family history is positive for aunt with bipolar disorder who was

institutionalized for suicidal ideation. His examination was benign with BP 127/70, HR 77, RR 16, PO2 99% at room air. Patient was dressed appropriately and displayed a slightly flat affect. His speech was in a low, monotone voice with a slow rate. Cardiovascular exam showed normal sinus rhythm with no murmurs or rubs. His lungs were clear to auscultation bilaterally with no rales, rhonchi or wheezes. Abdominal exam showed normal bowel sounds and was soft, non-tender to palpation. All other exams were benign. The AME deferred this decision to the FAA because Bipolar II disorders as noted above are specifically disqualifying.

**Side bar:**

Bipolar disorders have a lifetime prevalence of “one-to-three percent” amongst the world’s population.<sup>3</sup> The criteria to distinguish between Bipolar I disorder versus Bipolar II disorder is the history of having a manic episode. Bipolar I disorder is defined as the presence of a manic episode with a history of major depression disorder. Bipolar II is distinguished by having a hypomanic episode with a history of major depression disorder. The lifetime prevalence for Bipolar I is 0.6% and Bipolar II is 0.4%.<sup>4</sup>

“Hypomania is the presence of elevated, irritable mood for at least four days in the presence of at least three (four if only irritable) of the following symptoms of the acronym DIG FAST”<sup>5</sup>:

- **D**istractability
- **I**nsomnia
- **G**randiosity
- **F**light of ideas
- **A**gitation
- **S**peech is pressured
- **T**aking unnecessary risk

This must occur in the presence of major depressive disorder which is five of the seven features of the acronym SIG E CAPS<sup>5</sup>:

- **S**leep-increased or decreased
- **I**nterest-losing interest
- **G**uilt-excessive guilt
- **E**nergy-low
  
- **C**oncentration-decreased
- **A**ppetite-more/less
- **P**sycomotor-agitation or depression
- **S**uicide ideation

An airman who suffers from bipolar disorder is at risk of making errors in judgment especially when they are in a manic/hypomanic state. It is crucial that these individuals get identified and prevented from piloting aircraft.

**Aeromedical concerns:**

The question we have to evaluate is, “Does this individual have Bipolar II disorder or not?” He only was evaluated once by a psychiatrist and there was no follow-up on the condition. The other issue to consider is if the major depressive disorder is treated adequately with Setraline. The member displays a flattened affect and a low monotone voice with a slow rate despite being treated with 50 mg of Setraline. This is

typically a low starting dose. The major concern of the diagnosis of Bipolar disorders is the possibility of incapacitation of the judgement and functioning of the airman.

### **FAA policy:**

The Federal Aviation Administration (FAA) has typically denied people who have a history of bipolar spectrum disorders.<sup>6</sup> The risk in errors in judgement is heightened with people with these disorders. According to meta-analysis of observational studies, those suffering from bipolar disorders suffer from diminished attention, executive functioning, informational processing and verbal memory.<sup>7</sup> Members of these groups are at increased risk for suicide; the diagnostic statistical manual of psychiatric diagnosis shows that individuals who suffer from bipolar disorders are 15 times more likely to commit suicide than the general public.<sup>8</sup>

Furthermore, one retrospective study shows individuals suffering from bipolar disorders have a 27% lifetime prevalence of attempting suicide.<sup>9</sup> These risks come into consideration of issuing a medical certificate for these conditions.

### **Outcome:**

The case was deferred to the Federal Aviation Administration regional flight surgeon. Since the patient did not see a psychiatrist in over ten years concerning the diagnosis of Bipolar II disorder, they requested that the airman see a psychiatrist and have a neuropsychiatric evaluation. The reports that were submitted from the psychiatrist and the neuropsychologist confirmed that the individual indeed had Bipolar II disorder. The FAA subsequently disqualified the individual from a Class III medical certificate since Bipolar is one of the specifically disqualifying conditions under 14 CFR part 67 of the FAA regulations. They also informed him that he would not be qualified to pilot light sports aircraft due to this disqualification. Although disappointed, the airman continued seeing the psychiatrist and was adequately treated with mood stabilizers and cognitive therapy.

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## Case Report: Medical Certification of Pilot with Pancreatic Neuroendocrine Tumor

By Johana Giraldo Alzate, MD

### Abstract

Neuroendocrine tumors (NETs) are rare tumors that account for approximately 1–2% of all neoplasms<sup>1</sup>. Data from the National Cancer Institute indicated that the annual pancreatic NETs incidence was 0.3–0.4 per 100,000 in the US<sup>2</sup>. Peak age ranges from 50 to 70 years<sup>3</sup>. This article presents a case report of a third-class pilot who experienced a neuroendocrine pancreas tumor and includes a brief review of disease pathophysiology, outcomes associated with treatment, and aeromedical concerns is included.

### History

A 60-year-old, male, third class with over 190 hours of flying time is applying for reissuance of his third-class (Private-pilot) medical recertification 48 months following a diagnosis of pancreatic neuroendocrine tumor. This diagnosis was an incidental finding in August 2012 during a radiologist urologic examination (CT scan). Surgery was performed and the pathology report noted neuroendocrine carcinoma with metastasis to lateral aortic and retropancreatic nodes with invasion of peripancreatic adipose tissue, high grade well-differentiated, large cells Grade 3 (MIB1/Ki-67: 30%), 4 cm in length. His treatment consisted of chemotherapy with Cisplatin VB16 four cycles, that was well tolerated (control scan found stability of the tumor) followed with a left Splenopancreatectomy with left lumbar-aortic node clearance. The current monitoring on 2016 with MRI reported satisfactory control without signs of local recurrence or hepatic lesion, with a small stable angioma of the liver. There was mesenteric lymphadenopathy that was stable. Control tumor markers: chromogranin A (CgA): 94 ng/mL (normal < 120 ng/mL) and neuron-specific enolase (NSE): 12ng/mL (normal < 15 ng/mL). Additionally, the pilot has a history of hypertension in treatment with Amlodipine 5mg + Valsartan 80 mg (Exforge) without complications. His current medical condition is stable and the pilot appears to be in good health and is otherwise asymptomatic.

### Pancreatic Neuroendocrine Tumor, Pathophysiology

There are two probable origins of pancreatic NETs: mature endocrine cells in the pancreas (e.g.,  $\alpha$ -,  $\beta$ -,  $\delta$ - and  $\gamma$ - cells) and multipotent stem cells that can differentiate into endocrine and exocrine cells in the pancreas.<sup>4,5</sup> These tumors can secrete different types of neuropeptides and cause a wide range of clinical symptoms (e.g., carcinoid syndrome, Whipple's triad, and watery diarrhea/hypokalemia/achlorhydria syndrome) almost half of pancreatic NETs are functional, insulinoma is the most common type; other common types are gastrinoma, glucagonoma and somatostatinoma. They can present with a range of clinical symptoms.<sup>6</sup> Non Functional pancreatic NET is more likely to present with symptoms of local compression (obstructive jaundice and back and waist pain) and metastatic lesions.<sup>3</sup> According to the WHO 2010 classification, NETs are grouped with respect to the Ki-67 index as NET grade 1, NET grade 2, and NET grade 3. Nadler et al. reported the proportion of grade 1 NETs as 50%, grade 2 NETs as 36%, and grade 3 NETs as 14%.<sup>7</sup> NETs express at least two tumor markers: chromogranin A (CgA), synaptophysin and/or neuron-specific enolase (NSE).<sup>3</sup> (Figure 1). Early CgA response (normalization or <30% decrease by week 4) may correlate with improved progression free survival.<sup>8</sup> Surgical resection is the only curative<sup>2</sup> and traditional medical treatment of pancreatic NETs includes streptozocin (STZ)-based or platinum-based chemotherapy.<sup>3</sup> Overall the 5-, 10-, and 20-year survival rates were 33%, 17%, and

10%, respectively. There was a significant increase in median survival for patients with resection without distant metastases (1.6 versus 11.3 years).<sup>9</sup>

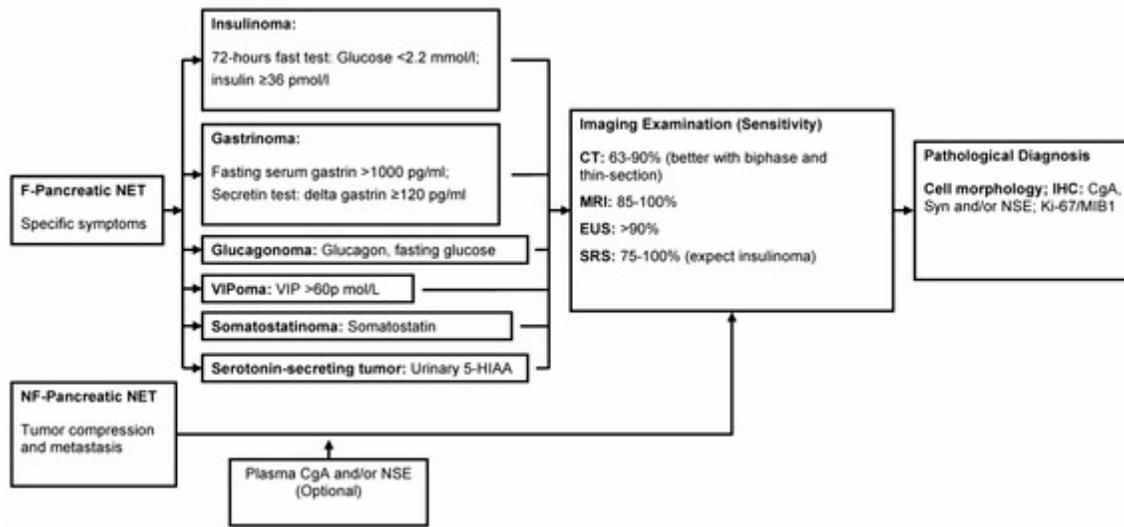


Figure 1. Clinical work-up of pancreatic NETs diagnosis. Abbreviations: F-pancreatic NET: functional pancreatic NET; VIP: vasoactive intestinal peptide; HIAA: hydroxyindoleacetic acid; CT: computed tomography; MRI: magnetic resonance imaging; EUS: endoscopic ultrasound; SRS: somatostatin receptor scintigraphy; IHC: immunohistochemistry; CgA: chromogranin A; Syn: synaptophysin; NSE: neuron-specific enolase; NF-pancreatic NET: nonfunctional pancreatic NET.<sup>3</sup>

### **Aeromedical Issues**

According to the FAA Aeromedical Certification policy guidelines, “the risk for sudden or subtle incapacitation can arise from the primary cancer itself, paraneoplastic effects of the cancer, the side-effects of the cancer treatment, and effects of metastases”. Mainly it is the risk of brain metastases that concerns the FAA but generally the most common metastatic site for pancreatic NETs is the liver.<sup>10</sup> In this particular case the primary cancer was completely excised, metastasis was removed and the pilot is free of post-surgical complications.

The other concern regards the hepatic angioma which is the most common benign mesenchymal hepatic tumors, Jhon et al, reported in magnetic resonance imaging for evaluation of focal hepatic lesion(s), 72% lesions were hemangiomas.<sup>11</sup>

### **Role of the AME**

One of the basic premises in the FAA’S policy on medical certification of malignancies that they generally do not grant medical certification if pilot is under treatment and usually wait 1-year post treatment to certify, especially if metastatic. The AME should fill the dual role of examining the patient thoroughly and submit supporting documentation needed for a potential special issuance. The pilot should provide all pertinent medical records to include: hospital admission and discharge summaries, consultation reports, operative report and pathology report, and the baseline CT scans or MRI reports. When the pilot is ready to present their case for consideration they should provide a current status report that should include the dates and names of all chemotherapy agents used and side-effects if any, the dates, dosage of radiation treatment if done, a current list of medications, the reports of any scans, x-rays, and pertinent laboratory studies.

### **Outcome**

The AME deferred a third-class certificate renewal to the Aerospace Medical Certification Division. After complete review of the pilot’s history, physical exam, ancillary studies and FAA Oncology consultant for

recommendation, the FAA Aerospace Medical Certification Division determined that the pilot meets the certification criteria for special issuance. He was issued a time-limited medical certificate. Per requirements set out in the *Guide for Aviation Medical Examiners*, the special issuance required annual follow-up with submitted documentation of a current status report from the treating physician, tumor markers and MRI to ensure no return of the tumor.

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## **What Aviation Medical Examiners Should Know About Designee Management System (DMS)**

***By Irina Volkova***

Designee Management System (DMS) was introduced in June 2014. DMS is a secure web based portal designed to allow AMEs to have an active role in their management. DMS provides the AME with performance reports, location information, training information, a secure messaging center and much more. In the past if an AME wanted to change a phone number, request location change, or request an upgrade they would have to do it in writing via mail. DMS allows an AME to log-on, make a request in a secure online environment, and the request is instantly sent to the Managing Specialist for action.

Although AMEs will use AMCS much more, DMS is an important part of your designation and there are things you need to be aware of that apply to all AMEs:

- Required to log-on and verify their designation information, location and equipment annually. In the near future if you do not complete this task your AMCS account will be suspended.
- Any request by an AME (senior upgrade, location change, etc...) should be initiated in DMS and approved by the Regional Flight Surgeon.

There are other tools in DMS to help assist AMEs as well:

- Access to training status in their DMS account.
- Performance reports are available at any time in DMS.
- The ability to send messages to their region regarding any topic via the secure messaging center.

Even though we have been using DMS for more than two years there have been some challenges both within DMS and by users. This is a great opportunity for us to identify some of those issues and solutions to make your experience in DMS a positive one.

- **Log into DMS-** Currently, there are about one third of the AMEs across the country who have not logged in to DMS. If you have not logged into DMS yet there are some things you need to know. You already have an account (do not create a new account) contact your regions Managing Specialist and they will help you log-on to your account.
- **Verify your information-** For many existing AMEs we imported your data from the previous system make sure we got it right and review your record.
- **Look yourself up-** Search for yourself as if you were an airman to make sure your information is showing up correctly on the FAA designee search web site. \*\*\*One major issue was discovered for newly designated AMEs only. The newly designated AME entered their phone number in the phone number section however the only phone number section that shows up on the FAA web site is the "Land-Line phone number" The solution was that (newly designated) AMEs needed add the phone number under the landline phone number and now the phone number shows up on the FAA web site.
- **What if you forget your password or get locked out of DMS-** Don't stress simply call 1-844-FAA-MyIT (322-6948) and the folks at the help desk will get you all set up. (Hint...Make sure you tell them you are working in the Designee Management System it appears the FAA has more than one system with the initials DMS it will help you get what you need faster)
- **There are online resources with training aides-** Use the link listed here to get step by step instructions on how to use DMS and learn more about features and benefits DMS has to offer.  
[http://www.faa.gov/other\\_visit/aviation\\_industry/designees\\_delegations/designee\\_types/ame/dms/](http://www.faa.gov/other_visit/aviation_industry/designees_delegations/designee_types/ame/dms/)

As with many functions in today's tech based world the FAA's Office of Aerospace Medicine is advancing too. We are confident over time (as with MedXpress) everyone will become more comfortable and DMS will become second nature. In the meantime, if you need help or have questions navigating DMS feel free to call your region or use the resources listed above.

Now let's test your AME IQ:

**Question 1:**

You are an AME that has been doing airman exams for the last five years (2<sup>nd</sup> /3<sup>rd</sup> class airman exams). Now you want to request an upgrade to senior examiner what do you do?

- A. Send a letter to the Regional Flight Surgeon requesting a senior upgrade.

- B. Log-on to DMS, go to the **action** link and request an expanded authority to senior examiner.
- C. Do not request an upgrade because you don't like to use computers.
- D. None of the above.

**Question 2:**

You are a new AME (recently designated) you notice your phone number does not show up on the official FAA web site what do you do?

- A. Log-on to DMS, go to the action link request to expand authority to update your phone number using the land line phone number section.
- B. Call your Region and ask them to assist you to get the phone number corrected in DMS under the land line phone number section.
- C. Your address is correct so if the pilot wants an exam they will show up at the office.
- D. Both A & B are correct.

**Question 3:**

The acronym DMS stands for?

- A. Defense Management System
- B. Difficult Management System
- C. Designee Management System
- D. Darn...another Management System

Answers:

Question 1:

**B.** Log-on to DMS, go to the **action** link and request an expanded authority to senior examiner.

Question 2:

**D.** Both A & B are correct.

Question 3:

**C.** Designee Management System

*Irina Volkova is an AME-QA Surveillance Program Analyst for the Northwest Mountain Region and Alaskan Region.*

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## **It's good to be an AME!**

### ***Dominick S. Zito, MD, MS***

Congratulations! As a member of one of oldest PPOs on Earth, you help FAA to maintain the safety of the National Airspace. Here are some suggestions to help you succeed as an AME.

**Suggestion #1. Complete the Exam**

Experienced doctors can often diagnose pathology just by watching the patient walk in the door. So what do you do when you meet a drunk, blind applicant who wears a foil hat to keep the "voices" away? Should you even start the exam? When do you decide to stop?

The answer is to complete the exam. Nothing is worse than getting into an emotional situation with an applicant since you know the person is obviously not qualified before you even start the exam. Your instinct might be to warn the applicant out of a sense of ethics, but that rarely ends well.

Typically that exam gets stopped cold, the applicant gets angry, you waste your staff's time, other patients get upset by the arguing, and the person storms out with all your paperwork. Then you have to call the FAA to tell us you have an incomplete exam and explain what happened. It's not pretty and it takes up your time.

A better approach is to be nonchalant and to complete the exam. That way you capture the obvious pathology you initially noticed and can alert us to it without alarming the applicant. Even better, you might even find out about the Dilantin and diazepam and other problems in the applicant's history. And during the physical you might hear a murmur or bruit or find a CABG scar.

Once you finish the full exam you can always tell the applicant that you have to check something with the Regional Flight Surgeon and excuse yourself. After an exam is completed you will firmly have the data FAA needs. We can then flag the case so the applicant will be blocked from going to another AME.

On the other hand, when you stop an exam prematurely some applicants will run from your office and falsify a separate exam at another AME's office by omitting the offending items the second time around. They hide the issues. Since the first exam was never completed or transmitted, FAA may remain unaware of the pathology forever.

By completing the exam you allow FAA staff to take over the case. In the eyes of the applicant, you are not the problem. You can go back to the applicant and say you tried to convince us but we said we need more information. The emotions remain calm. You're happy FAA is handling the issue and the applicant is still hopeful. We suggest you always complete the exam.

A similar logic applies to phone consultations. Always have the applicant come in and complete an exam before ever answering a phone question that starts with, "Will I pass if I have...?" The answer will probably be "Of course not!" and that applicant will disappear.

### ***Suggestion # 2. Value your time***

As we moved to a CACI and AASI environment, we heard AMEs comment that FAA expects a lot from them. The truth is, we do. The days of "Hey, how ya doin'?" exams are over. Vital signs can indeed be done by ancillary staff but we expect the exams to be performed by the doctor, not a nurse or physician's assistant. And we expect a full exam. While breast, genital, and rectal exams are no longer required, questions about past pathology involving those areas are still expected. The PRNC (see my article on "Previous Reported No Change") approach is no longer acceptable.

The truth is your services are valuable. You are doing comprehensive examinations. You belong to an elite specialized group of physicians. You work hard and you keep up to date with constant training. Don't be embarrassed to ask to be paid for your efforts.

There are no guidelines concerning costs and pricing, other than the limits of what the FAA itself pays an Employee Examiner. FAA exams are not bundled services. It is permissible to charge a fee for an exam one day and a fee to review records and reports at another, separate visit. Processing an AASI without performing an actual physical exam is still a visit, for example. You can be paid for each service you provide.

This is an important topic. Quite frankly, FAA is being inundated with redundant medical records from patient portals. When we request a simple blood pressure reading we are instead receiving hundreds of

pages downloaded from an electronic health record. There's a backlog in scanning, and those portal downloads are one major reason why.

One solution is simple. Now when applicants call our regional office to ask what medical reports FAA wants, we often tell the applicants to bring the records to their AMEs and to have the AMEs select out the pertinent documents to send to us. This is a separate service from the typical exam but one we expect all AMEs to do.

As an AME you are trained to identify what's important and to help the applicant through our system. HIMS specialists and outside consultants routinely review paperwork and charge for it. As an AME you can and probably should do the same thing. We want you to filter out what ought to be sent to FAA and leave out the superfluous records. That helps us to process the case faster and makes your patient satisfied. Remember, you can charge for that service. Your time is valuable.

### ***Suggestion #3. Be a Specialist***

Now that BasicMed is being used, some AMEs are afraid they're no longer needed. Nothing could be further from the truth.

Last year over 300,000 first and second class physicals were performed. Only AMEs can perform those exams. Over 34,000 certificates of all classes were special issuances. There are only 2560 AMEs in the system. Do the math. That's 34,000 out of more than 300,000 exams each year. You're a valuable member of the safety management system that maintains our airspace.

AMEs identify applicants with disqualifying conditions and immediately notify FAA via MedXpress that there's a problem. The good news is we will most likely clear an applicant with a disqualifying medical condition once we receive appropriate and adequate information. The key is reviewing that information. As I said earlier, as an AME you can analyze medical records in your office and pick out the information we want. If something is missing you can tell the applicant to go get it right away without waiting for us to send another information request. You help those 34,000 applicants to fly.

It's a win, win, win. The FAA can process real information, the applicant gets cleared sooner, and you have a new revenue stream outside of the chaos of insurance.

### ***It's good to be an AME!***

*Dominick S. Zito, M.D., M.S. is the Deputy Regional Flight Surgeon from the Eastern Region, Jamaica, N.Y.*

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## **AME Seminars Go Virtual**

### ***By Judith Frazier, MD, MBA***

#### ***AAM-400 Manager***

On the most recent AME survey (2018), AMEs asked the Education Division to develop on-line training in order to decrease the costs, both money and time, associated with seminar attendance. AMEs must take a course every three years to maintain designation status. Every six years that course must be in person. At three years, online MAMERC is available. In June 2020, AAM-400 delivered the first virtual AME Basic seminar in response to this request.

The events leading up to the implementation of the virtual seminars are now part of history. The AME Education Division took this opportunity to make live AME courses a reality. The coordinated efforts of Dr. Deann King, Gary Sprouse, Leah Olson, Dr. Susan Buriak, the many regional analysts, and others made this event not only possible, but highly successful.

Travel restrictions, flight delays, and hotel cancellations are not a problem with virtual seminars. However, there was a learning curve associated with becoming comfortable with the mute button, chat function, live microphones, and camera placement. Once over these hurdles, AAM-400 and the lecturers did what they do best---teach AMEs and keep them up to date!

The online delivery improved with each event thanks in great part due to the participants taking time to give feedback. They submitted pages and pages of comments to let AAM-400 know which videos did not work, which features were most useful (especially the chat function), and which lectures needed improvement.

There were hiccups, just like any seminar, but we got through them and learned from them. We have now had multiple Basic and Refresher virtual seminars. Reviewing all the comments, we found 90% of AMEs have a favorable review of the virtual seminars.

While we will be excited for in-person seminars to resume, we now have a new training tool that we can utilize in the future. All seminars will continue to be in the virtual format, at least through August 2021. The most up-to-date seminar schedule can be found at [www.faa.gov/go/ame](http://www.faa.gov/go/ame). Thank you once again to all the staff, lecturers, and participants who made this possible.

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## **Pharmacist Streamlines Medication Reviews**

*By Vinh Kieu, PharmD, BCACP*

The Office of Aerospace Medicine reviews medications for safety in aeromedical use after the Food and Drug Administration (FDA) has approved them as safe in the general population. As the upward trend of FDA approved medications increased over the past decade, it created a growing backlog of medications awaiting FAA review resulting in extended delays in issuing medical certificates. In addition, there have been continued requests from AMEs to review and consider new medication used by their pilots. The Federal Air Surgeon (FAS) realized that meeting the increasing demand for medication reviews would be challenging with current staffing in AAM.

In the fall of 2018, the Federal Air Surgeon hired the first clinical pharmacist (Vinh Kieu, PharmD, BCACP) at FAA to meet the increased demand. As chair of the Pharmacy and Therapeutics (P&T) committee, Dr. Kieu completes the initial review of medications and coordinates with FAS clinical consultants (such as cardiologists, neurologists, and oncologists) when needed to assess medications for aeromedical use. In less than two years, over 100 medications are now allowed after reviewing new or re-reviewed previously disqualifying medications. A few notable medications include erenumab (Aimovig) for migraine prophylaxis, ocrelizumab (Ocrevus) for multiple sclerosis, netarsudil (Rhopressa) for glaucoma, and elagolix (Orilissa) for endometriosis. Starting January 27, 2021, following publication in the AME guide, sodium-glucose transport protein 2 (SGLT2) inhibitors for diabetes may now be considered for use under the Special Issuance (SI) process.

The upward trend of new treatments and medications has been particularly challenging in oncology. The FAS hosted an oncology summit in September 2018 with nationally recognized subject matter experts. As a result, in the two years following the summit, we have prioritized reviewing oncology

medications. While not all are acceptable for flight, over 50 new oncology medications may now be allowed for pilots under SI. These include medications like ixazomib (Ninlaro) and daratumumab (Darzalex) for multiple myeloma, ofatumumab (Arzerra) chronic lymphocytic leukemia and apalutamide (Erleada) for prostate cancer. We found a “pathway to yes” and have certified many airmen who previously would have been denied.

Now, with AAM’s pharmacist designated to be the point person to primarily focus on medications for review, the process is more efficient and streamlined. As a result, air traffic controllers and pilots will have more medications considered sooner for use, and AMEs will be able to more quickly issue medical certificates to those who qualify.

*Dr. Vinh Kieu is the Clinical Pharmacist in the Medical Policy and Standards Branch at FAA Headquarters, Washington, D.C.*

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## COVID-19 Vaccine Update

Holders of FAA-issued Airman Medical Certificates or Medical Clearances may receive the Pfizer-BioNTech or Moderna COVID-19 vaccine; however, a 48-hour no fly/no safety related duty interval must be observed after each dose.

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