

## **ASYMPTOMATIC ECTOPIC ARRHYTHMIA IN A YOUNG MILITARY PILOT – CASE PRESENTATION**

**Mirela Anghel, MD, PhD**

### **Summary:**

In this article is presented a young asymptomatic military pilot on a transport aircraft who was diagnosed, at his annual medical examination, with ectopic supraventricular and ventricular arrhythmia. Aeromedical certification is discussed. N.M, a military pilot on transport aircrafts (C 27), aged 29 years, has presented in May 2019 at the annual medical examination at National Institute of Aeronautical and Space Medicine (NIASM). He had no medical history, he is nonsmoker, he liked coffee and had a 3-month child.

## **PREDICTIVE VALIDITY OF PSYCHOLOGICAL TEST FOR THE MILITARY PILOT PROFESSION. PROFESSIONAL CRITERIA AND THEIR METHODS OF RECORDING**

**Psychologist Vasile Gherghina**

### **Summary**

Predictive validity refers to the degree of concordance between test scores and criterion scores.

By calculating the criterion's validity it is followed the degree of effectiveness of the psychological test in the prognosis of the desirable behavior in a professional activity is followed. Criteria for professional success are classified into two broad groups: "hard - criteria" and "soft - criteria".

In order to realize the predictive validity study of the psychological assessment battery, it was chosen to use the interpersonal assessment test instead of the average notes of the various types of theoretical and practical training obtained in the process of school preparation.

**Keywords:** criterion, predictive validity, correlation values between predictors and flight results, method of objective assessment.

## **STRATEGIES FOR MITIGATING RISK POSED BY BIOTIN INTERFERENCE ON CLINICAL IMMUNOASSAYS- REVIEW**

**Daniela Apăfăian bch.; Simona Berar MD**

### **Abstract:**

Recently, biotin use as an oral supplement has increased significantly among the general population. Biotin is a water soluble B-vitamin and is marketed to improve the cosmetic appearance of hair, skin, and nails. In addition, high-dose biotin (>5 mg/day) is prescribed to treat inborn errors of metabolism and multiple sclerosis. Many commercial immunoassays employ the high affinity interaction between biotin and streptavidin, a protein purified from bacteria, as part of the analyte capture mechanism. As such, these immunoassays are subject to this interference.

The list of affected immunoassays is vendor specific but includes tests for troponin, serum and urine  $\beta$  hCG, thyroid function, and tumor markers. The interference can be positive or negative in nature depending on the immunoassay. To address this issue, patients are recommended to abstain from taking biotin supplements for 48 h, and laboratorians and clinicians must be familiar with the potential for biotin interference in performed lab tests. The aim of this article is to describe strategies to treat high biotin specimens and make them suitable for testing; and detail a number of approaches to educate patients, doctors, and other healthcare professionals about this interference and to mitigate the posed patient safety risk.

**Keywords:** biotin, supplements, immunoassay, interference, risk mitigation, patient safety

## **ANTI-G STRAINING MANEUVERS (A.G.S.M.) - TECHNIQUES AND COMMON ERRORS -**

**Adrian Macovei MD, PhD; Dragoş Vladı MD, PhD; Dr. Săndulescu Mihai**

### **Abstract**

**Introduction:** The endowment of the Romanian Army with multipurpose aircrafts brings once again into discussion the possibility of training pilots able to withstand the challenges that such airships pose.

**Methods:** A review of the available data on the correct accomplishment of the Anti-G Straining Maneuvers (AGSM) and the discussion of its critical elements, presented from the authors own perspective.

**Results:** The authors will present the main points of attention in performing AGSM and the critical areas where thorough consideration is due.

**Conclusion:** AGSM plays an essential role in obtaining a high G tolerance. Complex training programs and periodical exposure to high G-load, either by centrifuge or real flight, are a necessity.

**Keywords:** G-load, AGSM, G-LOC

## **INTRAOPERATOR ELETROCARDIOGRAPHIC ABNORMALITY IN A MILITARY PILOT**

**Teodora - Alexandra Şerban MD, Simona Mihaela Butoi MD**

### **Summary:**

Intra-anesthesia monitoring is mandatory during surgery. The purpose of the monitoring is to identify some events that might put the patient's life at risk.

This article will present the case of a patient (military pilot) that developed an abnormality of the cardiac rhythm during general anesthesia.

The following aspects will be brought up for presentation: the risk that patient has an undiagnosed cardiovascular pathology, the intra anesthesia risk and the concerns about his ability to perform his profession.

**Keywords:** anesthesia, pilot, cardiac rhythm abnormality, low atrial rhythm, one day surgery.