

NEWS & RELATED LINKS

Notable events and decisions in occupational medicine

FAA Amends Airman Medical Certification Standard

The Federal Aviation Administration (FAA) issued a final rule that changes the airman medical certification standards effective July 21, 2006. These amendments ensure that individuals who engage in substance abuse will not operate aircraft or perform contract air traffic control duties until it is determined that they can safely exercise the privileges of their certificates. The amendments would disqualify an airman based on any of the following:

- An alcohol test result of 0.04 or greater breath alcohol concentration (BAC);
- A refusal to take a drug or alcohol test required by the Department of Transportation (DOT) or a DOT agency.

The published rule standardizes the time period (two days) for reporting drug and alcohol test refusals and verification of test results to the FAA, and requires employers to report pre-employment and return-to-duty test refusals. It also amends the airman medical certification requirements to allow suspension or revocation of airman medical certificates for pre-employment and return-to-duty test refusals. Lastly, the updated regulations recognize current breath alcohol testing technology.

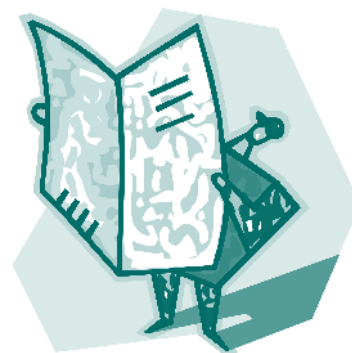
FDA Approves First Two-in-One Test for Hepatitis B Surface Antigen

The Food and Drug Administration (FDA) approved the first fully-automated hepatitis B surface antigen (HBsAg) test that is both a screening and confirmatory test. Abbott's two-in-one test is composed of the PRISM HBsAg assay and the PRISM HBsAg confirmatory assay, which is used to confirm tests found to be reactive by the former. It has been approved for use on donated blood, blood components, and organs. It can also be used to screen cadaveric donor's blood for hepatitis B prior to the donation of organs and tissue for transplant.

Currently, screening and confirmatory tests are performed separately. The automated Abbott PRISM HBsAg tests will reduce the potential for operator errors and have shown high specificity and sensitivity for the detection for HBsAg. They are also tamper-resistant and have redundant checks to guarantee the reliability of the assay.

Update on NIOSH B Reader Program

Regulations require that all physicians who participate in the examination and/or classification of chest radiographs under the Federal Mine Safety and Health Act must use the ILO System and Standard Films. Changes made in the NIOSH B Reader program reflect information from the 2000 revised edition of the Guidelines



for the Use of the ILO International Classification of Radiographs of Pneumoconioses and the 2002 update, which includes the following items.

- NIOSH has revised both the B Reader certification and recertification examinations to make them consistent with the ILO revision.
- NIOSH now tests all B Reader candidates according to the revised ILO system.
- B Reader certifications under the previous ILO system are valid until their date of expiration, after which B Readers will be required to recertify under the revised system.
- A revised roentgenographic interpretation form, which is consistent with the ILO revision, is now used in all components of the NIOSH Coal Workers' Health Surveillance Program (CWHSP).

At present, B Readers must continue to use standard film-screen radiography (FSR) when classifying chest x-rays for the Coal Workers' X-Ray Surveillance Program in compliance with regulatory requirements under 42 CFR Part 37. Furthermore, since the current ILO guidelines prescribe side-by-side viewing of subject and standard radiographs and state that

the standard films take precedence in defining profusion categories, digital images cannot be used.

The ILO currently offers two distinct sets of the standard films, the “Complete Set” consisting of 22 radiographs, and the “Quad Set” consisting of 14 radiographs. NIOSH recommends that the “Complete Set” be used for the purposes of classifications under the NIOSH Coal Workers’ X-ray Surveillance Program and for readers to consult with responsible parties performing classifications for other purposes, such as research studies, medical surveillance programs, or clinical or medical-legal evaluations.

The ILO used identical images for the 1980 and 2000 set of standard radiographs, aside from one image which demonstrates pleural abnormalities. NIOSH recommends that readers consider using the 2000 current standard radiographs for classifying films for NIOSH programs and studies because of better image quality.

NAMCS: More Physicians Using EMR

A survey conducted by CDC’s National Center for Health Statistics, Electronic Medical Record Use by Office-based Physicians: United States, 2005, revealed an increasing trend in electronic record-keeping by physicians. The survey included data from more than 1,000 office-based physicians practicing across all 50 states and the District of Columbia. Key findings in the National Ambulatory Medical Care (NAMCS) survey include:

- Full or partial use of electronic medical records (EMRs) has increased 31% in office-based

practices over the past five years. Nearly a quarter of physicians surveyed in 2005 reported using EMR, compared with 18.2% in 2001.

- Solo practitioners are the least likely to use EMRs.
- Physicians in metropolitan areas (almost 25%) were more likely to use EMRs than those in non-metropolitan areas (16.9%).
- Only one in ten physicians (9.3%) uses a “complete EMR system,” that should include, at the very least, computerized orders for prescriptions, computerized orders for tests, electronic reporting for test results, and electronic physician notes. Most current software systems lag in public health reporting capability and features that allow clinical reminders.

Study Finds BMI/Healthcare Cost Correlation

A cross-sectional study recently published in the Journal of Occupational and Environmental Medicine quantified an increase in healthcare cost per unit BMI (body mass index) over the normal range. The study included 35,932 employees of a manufacturing company and their spouses, who participated in an indemnity/PPO plan provided by the employer and completed a health risk appraisal between 2001 and 2002. Results of the study revealed that within the high BMI range of 25 to 45 kg/m², medical and pharmaceutical costs were significantly higher than those whose BMI was within the normal range. Medical costs showed a greater

increase when adjusted for diabetes and heart disease. Furthermore, the likelihood of medical claims for diabetes and heart disease were higher for those with increased BMI.

BMI, calculated from an individual’s height and weight, is a useful screening tool to measure body fat. Normal adult indexes range from 18.5 to 24.9 kg/m² while a BMI of 25 to 29.9 kg/m² is considered overweight and 30 kg/m² and above is obese. People with a BMI below the normal range are considered underweight.

The relationship between medical and pharmaceutical costs and BMI unit showed a clear J-shape relationship; there were higher medical costs in both lower and higher than normal BMIs. Between BMI 25 and 45 kg/m², medical costs and drug costs reflected a significant difference in cost of \$119.7 (4%) and \$82.6 (7%) per BMI unit increase adjusted for age and gender.

Medical costs of the total population related to diabetes and heart disease increased by \$6.2 and \$20.3 for each unit increase of BMI above the normal range after adjusting for age and gender. In addition, being overweight or obese increased the likelihood of having a diabetes claim (11.6% higher for each unit increase in BMI) or a heart disease claim (5.2% higher per unit increase in BMI).

Citation: Wang F, McDonald T, Bender J, et al. “Association of Healthcare Costs With Per Unit Body Mass Index Increase.” J Occup Environ Med. 2006; 48(7):668-674.

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