

## Clinical Pathology Selected Abstracts, 9/13

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### **Routine coagulation testing for patients presenting to the ED with chest pain**

In an attempt to assess patients' care needs rapidly, many laboratory tests may be performed as protocol prior to clinical assessment of the patient. This may generate erroneous information due to laboratory tests being interpreted out of clinical context and may even result in patient harm due to unnecessary treatment. Among the tests frequently ordered in the emergency department are activated partial thromboplastin time ratio, prothrombin time, and international normalized ratio. The authors conducted a retrospective study of 1,000 patients presenting to the emergency department to investigate the usefulness of routine coagulation screening in patients with undifferentiated chest pain. They identified 640 patients who had coagulation tests sent from the emergency department as part of their assessment. Of the 592 coagulation samples processed, only 79 were abnormal. Moreover, these abnormal tests could have been predicted on the basis of history of warfarin or heparin use or history of liver disease. The abnormal results did not preclude coronary angiography or therapeutic use of heparin in the study patients. Based on these findings, the authors do not recommend routine coagulation testing in adults presenting to the emergency department with chest pain. However, they recommend screening patients with an increased risk of coagulopathy due to warfarin or heparin use or a history of liver disease. The authors also stress that this recommendation is applicable only to adult patients presenting to the emergency department with chest pain. They caution against generalizing the results to other patient populations not yet studied.

Martin D, Beardsell I. Is routine coagulation testing necessary in patients presenting to the emergency department with chest pain? *Emerg Med J.* 2012;39:184-187.

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### **Prospective comparison of curbside versus formal consultations**

Physicians are all too familiar with the informal, "By the way, what do you think?" consultation, in which a consultant is asked to provide advice or information about a patient without doing a formal assessment. The concern is that physicians perceive the recommendations provided to be inaccurate or incomplete since a full patient assessment was not performed. The authors conducted a study to prospectively compare the accuracy and completeness of the information received from an informal curbside consultation with that obtained in a formal consultation and to determine if the recommendations offered in the two consultations differed. The authors defined a curbside consult as a consulting provider asking for advice, suggestions, or opinions about a patient's care without asking the hospitalist to see the patient. The authors collected one year of data on curbside consults performed by the Internal Medicine Consultation Service of Denver Health, a university-affiliated safety net hospital. Following each curbside consult, another hospitalist requested verbal permission to perform a formal consult on the patient. The two then compared their recommendations. Of note, curbside consults were neither solicited nor discouraged during the study. Results showed that information was felt to be inaccurate or incomplete in 24 of 57 (51 percent) of the curbside consults, and the advice rendered from the formal consultations differed from that provided in 26 of 47 (55 percent) of the curbside consults. Furthermore, the formal consultation was thought to change management for 28 of 47 (60 percent) patients. The important study finding is that the recommendations made in curbside versus formal consultations on the same patient frequently differed, which may have important implications for patient safety and care. The authors concluded that the information provided in a curbside consult is often inaccurate and incomplete and that this finding would apply to consults involving specialists in fields other than internal medicine.

Burden M, Sarcone E, Keniston A, et al. Prospective comparison of curbside versus formal consultations. *J Hospital Med.* 2013;8:31-35.

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## **Primary prevention of cardiovascular disease with a Mediterranean diet**

Studies have shown an inverse relationship between adherence to a Mediterranean diet and cardiovascular risk. The traditional Mediterranean diet consists of a high intake of olive oil, fruit, nuts, vegetables, and cereals, a moderate intake of fish and poultry, and a low intake of red meat and sweets. Of interest, a systematic review ranked the Mediterranean diet as the most likely dietary model to protect against coronary heart disease. The researchers in this randomized control trial tested the efficacy of two Mediterranean diets—one supplemented with extra-virgin olive oil and another with nuts—and compared them to a low-fat diet as a primary prevention for cardiovascular disease. The authors enrolled in their study 7,447 people in Spain who were at high cardiovascular risk but who did not have cardiovascular disease at entry in the study. The subjects received quarterly individual and group educational sessions and a free provision of extra-virgin olive oil, mixed nuts, or small nonfood gifts, depending on their assigned study group. The primary end point was rate of cardiovascular disease. The study was stopped after 4.8 years based on an interim analysis that showed that people on a Mediterranean diet supplemented with extra-virgin olive oil (96 events) or nuts (83 events) had a reduced incidence of major cardiovascular events compared to the control group on a low-fat diet (109 events). The authors concluded that the Mediterranean diet resulted in an absolute risk reduction of approximately three major cardiovascular events per 1,000 person-years, for an absolute relative risk reduction of about 30 percent. The results support the benefits of this type of diet in the primary prevention of cardiovascular disease.

Estruch R, Ros E, Sala-Salvado J, et al. Primary prevention of cardiovascular disease with a Mediterranean diet. *N Engl J Med.* 2013;368:1279-1290.

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## **Quick study: a case of Gamma heavy chain disease**

The prominent band seen with serum protein electrophoresis was tested with immunosubtraction (immunotyping) and immunofixation. The results are shown. Notice the presence of an IgG heavy chain but yet no subtraction or staining for light chains. This patient has a very rare heavy chain disease (HCD). Three heavy chain diseases are known: Alpha HCD (a form of mucosa associated lymphoid tissue, or MALT, lymphoma), Gamma HCD (also known as Franklin's disease, a mixed lymphoid-plasmacytic disease), and Mu HCD (characterized by the presence of incomplete IgM heavy chains). Heavy chains were also found in this patient's urine. This patient was diagnosed with Gamma HCD.

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