C. Difficile Colitis (Kreuger GR/Didactics):

With the increasing incidence and evolving epidemiology of C. difficile infections it is imperative that clinicians stay up to date on treatment guidelines. While there has been increasing awareness and subsequently increasing diagnoses of C. difficile infections both in the hospital and community settings, physicians' approach to appropriate guideline-based treatment may not be up-to-date. According to a study by the Maryland Department of Health and Mental Hygiene and reported at the 2015 International Conference on Emerging Infectious Diseases in Atlanta, there is a potentially significant disparity in management of C. difficile infections when compared to the Society for Healthcare Epidemiology of America and Infectious Diseases Society of America (IDSA) guidelines. This includes prescribing the wrong drug (depending on disease severity), at the wrong frequency and/or the wrong doses. For example, for outpatients with mild to moderate infection in the study (n=264), only 62% of cases were treated according to guidelines. Furthermore, when looking at patients with severe infection, only 13% of patients were treated according to guidelines. Dr. Kreuger's lecture reviews standard of care treatment strategies for C. difficile infections, especially in approaching first time vs. recurrent infections as well as treatment after stratifying infections by severity.

Vindigni SM, Surawicz CM. C. difficile Infection: Changing Epidemiology and Management Paradigms. Clin Transl Gastroenterol. 2015;6:e99.

Melville, Nancy A. "C. Difficile Prescriptions Often Stray From Guidelines." Medscape, 28 Aug. 2015. Web. 07 Sept. 2015.

Cardiovascular Risk Predictors (Defilippis GR/Didactics):

Cardiovascular Risk Scoring systems are frequently used in clinical (especially outpatient) practice for risk stratification and guiding primary and secondary prevention of cardiovascular events. The Atherosclerotic Cardiovascular Disease (ASCVD) risk score is the latest in a line of scoring systems and is recommended for use per the latest AHA/ACC guidelines. However, there are caveats to using the ASCVD exclusively and/or any other established cardiac risk score. Studies have shown that they can either overestimate or underestimate risk depending which cohort of patients they are being applied to. When applied to a European Cohort, the ACC/AHA, the Adult Treatment Panel III (ATP-III), and the European Society of Cardiology (ESC) guidelines all overestimated risk of cardiovascular events [2]. Similar issues of calibration and overestimation of risk is seen when risk scores are applied to the MESA (Multi-Ethnic Study of Atherosclerosis) cohort. Even uptodate.com, one of the most widely used point of care decision making tools, endorses a personalized approach to estimating risk in each patient based on factors such as age, gender, ethnicity. Dr. Defilippis' lecture on cardiovascular risk predictors provides an excellent background and analysis of the strengths & weaknesses of each of the cardiac risk predictors. Ultimately, Dr. Defilippis endorses a comprehensive appraisal of a patient's cardiovascular risk, which includes other factors such as co-morbidities, history & physical exam, and imaging findings as well as cardiovascular risk predictors such as the ASCVD risk score. This is a practical approach for any practicing clinician as the data on this topic continues to be conflicting and controversial.

1. Defilippis AP, Young R, Carrubba CJ, et al. An analysis of calibration and discrimination among multiple cardiovascular risk scores in a modern multiethnic cohort. Ann Intern Med. 2015;162(4):266-75.

2. Kavousi M, Leening MJ, Nanchen D, et al. Comparison of application of the ACC/AHA guidelines, Adult Treatment Panel III guidelines, and European Society of Cardiology guidelines for cardiovascular disease prevention in a European cohort. JAMA. 2014;311(14):1416-23.