

PROGNOSIS

Objectives:

At the end of this unit, you should have the ability to critical appraise the methodology of an observational study, determine the study's risk of bias and understand its applicability into clinical practice.

Assignment:

Read the attached article, critically appraise the study using the attached worksheet, and discuss its applicability in the context of the following clinical scenario.

Clinical Scenario

You are a resident in the General Internal Medicine program. In the outpatient clinic there is a consult from the Orthopedic Service, regarding a patient who will undergo an elective total hip arthroplasty in the following week. The patient is an 86 year old female with severe right hip osteoarthritis. She reports a past medical history of hypertension, type 2 diabetes, a stroke 5 years ago, and stable coronary artery disease. The patient is asymptomatic. She denies chest pain, shortness of breath or peripheral edema. Over the last 6 months she has severe limitation to perform physical activities due to hip pain.

A nurse practitioner working with you recommends serial postoperative troponin measurements, but you are unsure if this strategy will add prognostic information. You search in the Pubmed database and you find some relevant information from publications of the multinational VISION Study, and the most recent attached paper. Your hospital uses a high-sensitivity Troponin T assay, so you evaluate the following article.

Enclosed Materials:

1. Vision Study Investigators. Association of Postoperative High-Sensitivity Troponin Levels With Myocardial Injury and 30-Day Mortality Among Patients Undergoing Noncardiac Surgery. The Vascular Events in Noncardiac Surgery Patients Cohort Evaluation (VISION) Study. *JAMA* 2017; 317:1642-1651.
2. Guyatt G, Drummond R. *User's Guides to the Medical Literature: A Manual for Evidence Based Clinical Practice*, 3rd Edition (JAMA). New York, NY: The McGraw- Hill Companies, Inc, 2015. 20 Prognosis.
3. Worksheet for the evaluation of prognostic article.