Objectives:
At the end of this unit, workshop participants should have the ability to critically appraise the methodology of a randomized controlled trial, determine a study’s risk of bias, and understand its applicability to 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. There is also useful data in the paper for calculating relative risk, absolute risk difference, and number need to treat; and to discuss the difference between hazard ratios (HR) and relative risk (RR).

Clinical Scenario:
You are a fellow in a cardiology residency program. An orthopedic surgery resident pages you regarding a patient with an elevated serum troponin level after surgery (the high sensitivity troponin T level is 68 ng/L). The patient is a 91 year old male who had a mechanical fall 2 days ago, fractured his left hip, and yesterday he underwent a surgical procedure: open reduction and internal fixation of his hip. He has a past medical history of hypertension and diabetes, but no previous history of coronary artery disease, stroke or peripheral arterial disease.

The orthopedic resident wants to discharge the patient as he is asymptomatic, denies chest pain or shortness of breath, and the electrocardiogram performed in the morning shows no signs of concern (no ischemic changes). The resident understands that perioperative troponin elevation has an impact on short-term and long-term prognosis, but he is not aware of any treatment that can modify the patient’s prognosis. You search in the PubMed database and you find the paper, listed below. This patient is already receiving a blood thinner to prevent venous thromboembolism, Rivaroxaban 10 mg daily, so you evaluate the following article and make a decision regarding his ongoing treatment to mitigate risk of cardiovascular events.

Enclosed Materials:

2. Supplementary Materials for above article.
