Glance et al. examined the scores for 10,000 patients across 3 models, evaluating model concordance and performance (calibration and discrimination).

**Revised Cardiac Risk Index**
- Published in 1999
- N=4,135 patients
- Simple to use
- Poor agreement vs. other two models
- Not a continuous prediction
- Calibration: Poor
- Discrimination: Poor (area under the curve (AUC) 0.68)

**Myocardial Infarction or Cardiac Arrest**
- Published in 2011
- N=211,410 patients
- Simple to use
- Only predicts MI or cardiac arrest
- Continuous prediction
- Calibration: Poor
- Discrimination: Fair (AUC 0.73)

**Interclass correlation (ICC) agreement:**
- <0.4: Poor
- 0.4 to 0.59: Fair
- 0.6 to 0.75: Good
- >0.75: Excellent

**American College of Surgeons National Surgical Quality Improvement Program Surgical Risk Calculator**
- Periodically updated
- N=1.4 million patients
- Difficult to use
- No EHR integration
- Proprietary, unpublished algorithm
- Continuous prediction
- Calibration: Acceptable
- Discrimination: Good (AUC 0.81)

**ACS NSQIP**
- Age
- Steroids
- Sex
- Sepsis
- ASA Class
- Diabetes
- CHF
- Function
- Insulin
- High risk
- Renal fx
- Dialysis
- Ventilator
- COPD
- Dyspnea
- Medication
- BMI
- Smoker
- CPT
- Function
- ARF
- Cancer

ACS, American College of Surgeons; ARF, acute renal failure; ASA, American Society of Anesthesiologists; Ascites, ascites within 30 days prior to surgery; BMI, body mass index; CAD, coronary artery disease; Cancer, disseminated cancer; CHF, congestive heart failure in 30 days prior to surgery; CKD, chronic kidney disease; COPD, chronic obstructive pulmonary disease, severe; CPT, Current Procedural Terminology, specific code; CVA, cardiovascular accident; EHR, electronic health record; Function, functional status; High risk, high-risk surgical procedure; HTN meds, hypertension requiring medication; Insulin, diabetes requiring the usage of insulin; MI, myocardial infarction; MICA, Myocardial Infarction or Cardiac Arrest; NSQIP, National Surgical Quality Improvement Program; RCRI, Revised Cardiac Risk Index; Renal fx, renal function; Sepsis, sepsis within 48 hr prior to surgery; Smoker, current smoker within 1 yr; Ventilator, ventilator dependent.

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2. Fleisher LA. Preoperative cardiac evaluation before noncardiac surgery: Reverend Bayes’s risk indices and optimal variables. Anesthesiology 2018; 129:867–8