# Milestone vs. Outcome Recap

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## Research Aims

- Aim 1: Determine if **higher Milestone ratings** at completion of general surgery training are associated with better **risk-adjusted patient outcomes** for early-career general surgeons.
- Aim 2: Determine if Milestone ratings at completion of general surgery training can be used to **predict** clinical performance of early-career general surgeons based upon risk-adjusted patient outcomes.

## Research Questions

RQ1: What is the expected odds ratio of a given risk-adjusted patient complication for each procedure performed on a typical patient by a surgeon within their first 5 years (18 months?) of practice given a certain overall (composite) Milestone rating at time of graduation?

#### procedure:

• Partial Colectomy

#### Predictor:

• Overall Milestone Rating (Standardized Mean Score)

#### complication:

- 30d mortality
- severe complication
- 30d readmission
- 30d reoperation
- Any complication
- Any complication (exclude death)

report name: model\_results\_tmb.html

#### RQ2:

Predictor: Composite Operative Milestone Rating procedure and complications are the same as Q1 report name: model\_operative\_results\_tmb.html

#### RQ3:

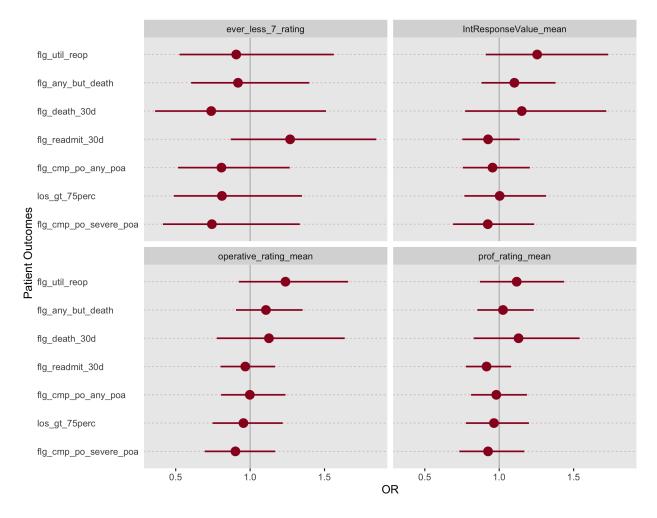
Predictor: Composite Professionalism Milestone Rating

procedure and complications are the same as Q1 report name: model\_prof\_results\_tmb.html

# RQ4: highest vs. lowest quartile of Milestone ratings at time of graduation Not done

RQ4.1: Ever had less than 7 ratings in any evaluation questions (binary ever\_less\_7\_rating) report name: model\_low\_rating\_results\_tmb.html

# results summary



# Next Steps (MVP?)

## option1: using the medicare cohort we have

- any more milestone ratings?
- other procedures?
- not 5 years year career?

estimate: days

# option2: add 2017 medicare

Solutions: - using existing SAS code to add 2017

challenges: - data structure checks for 2017 (mapping for 2017) - data names and locations has changed -

potential break of code - data QA

estimate: 2 weeks

# option3: add more procedures from medicare

• data mapping procedures

estimate: 3 weeks