

MACHINE VS. ANAESTHESIOLOGIST: WHO CAN BETTER PREDICT DELIRIUM

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AIM

Compare the effectiveness of the PIPRA algorithm against clinical assessments by anaesthesiologists in predicting postoperative delirium (POD).

METHODS

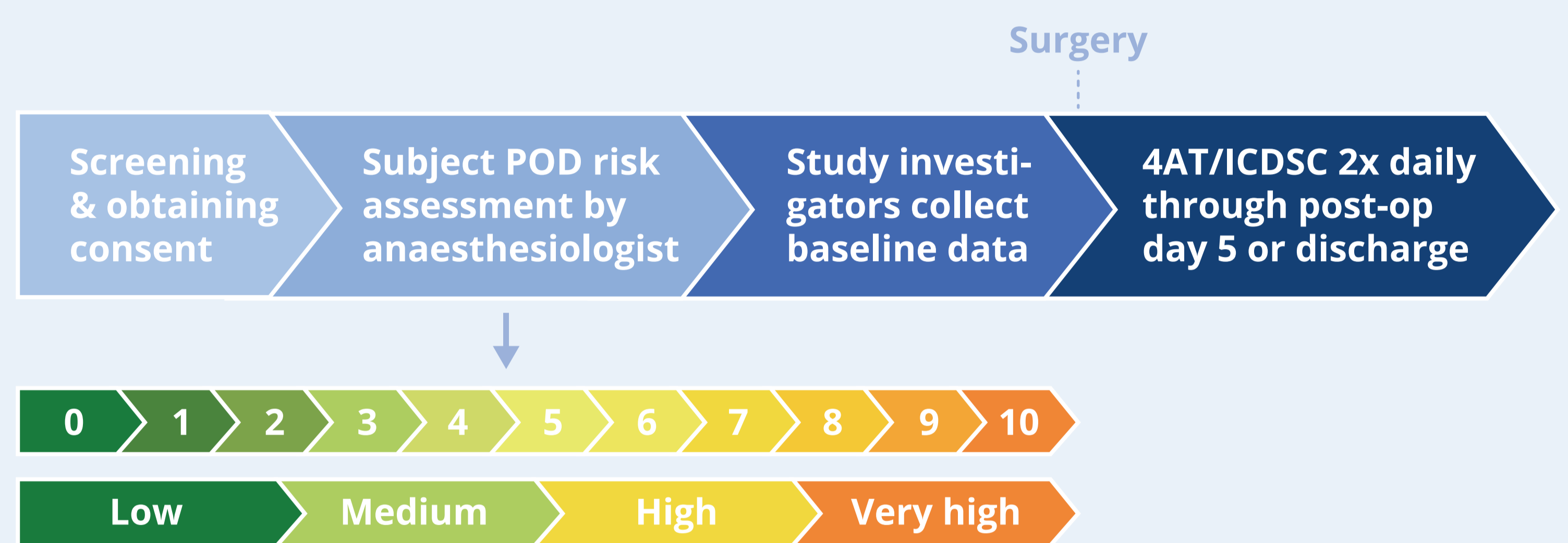
Multicentric prospective cohort study (Protocol NCT05639348) across three major hospitals in Switzerland between November 2022 and June 2024

Included in study

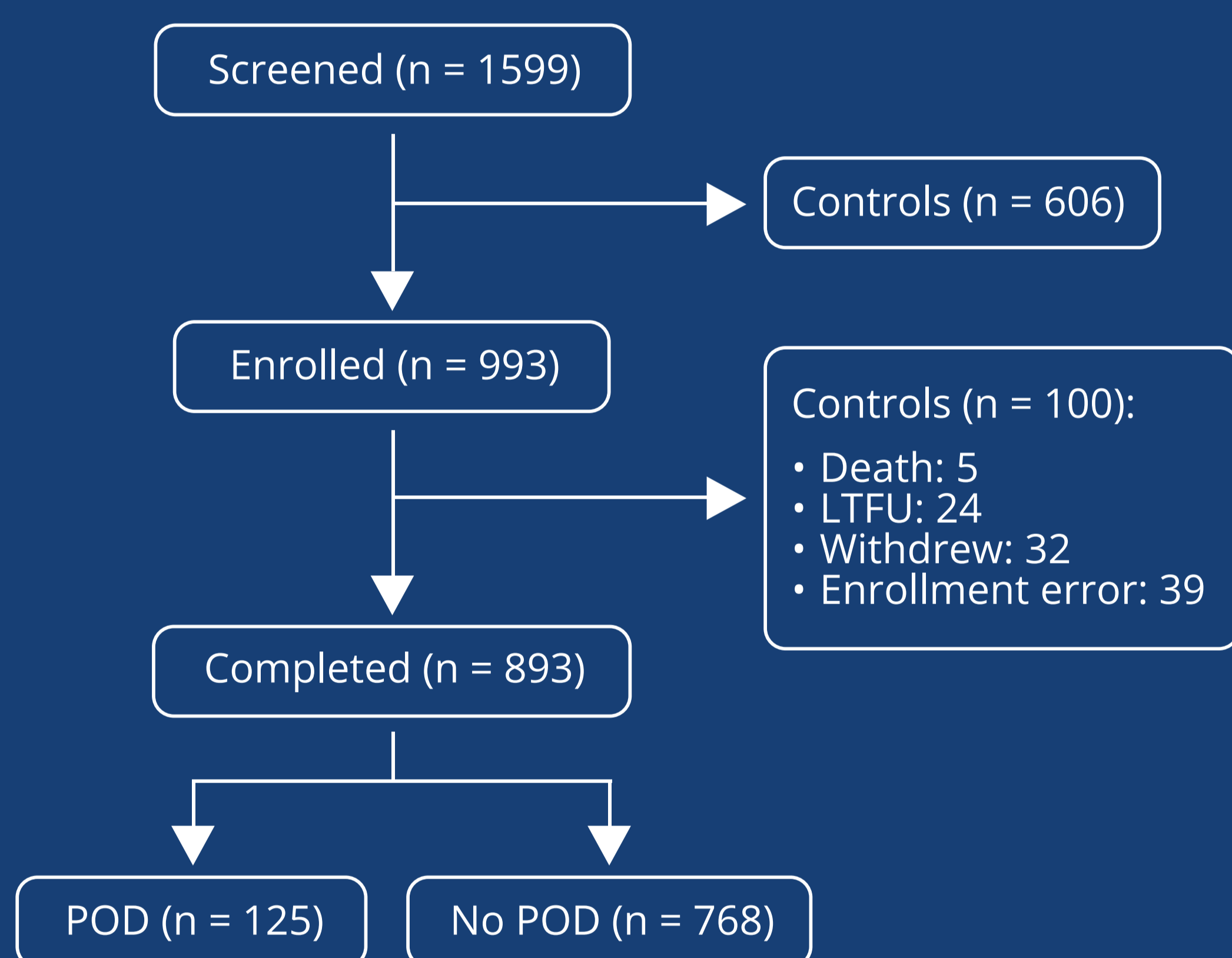
- ✓ Surgical patients
- ✓ Expected post-op hospital stay of 2+ days
- ✓ 60 years and older
- ✓ Consent

Excluded from study

- ✗ Preoperative delirium
- ✗ Cardiac/intracranial surgery
- ✗ Previous surgery within past 2 weeks
- ✗ Insufficient German/French or otherwise unable to consent

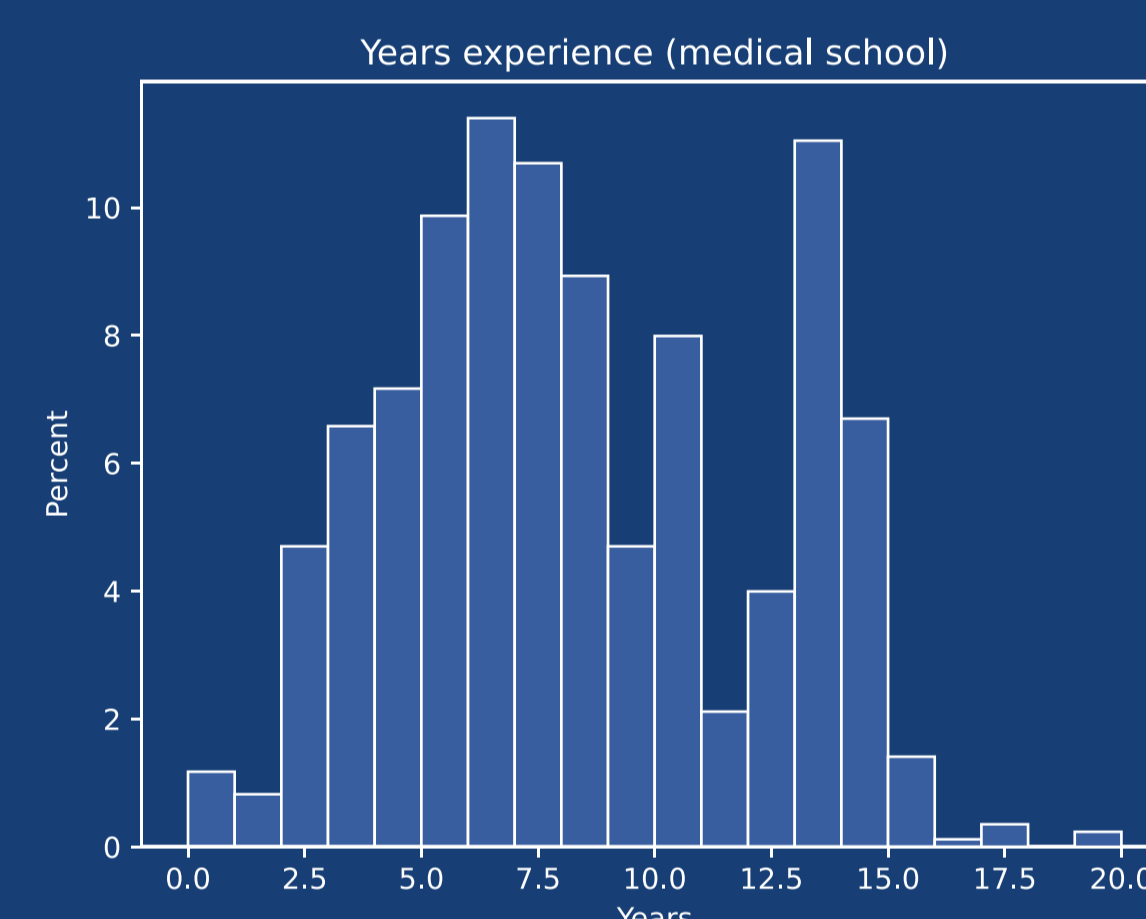


RESULTS



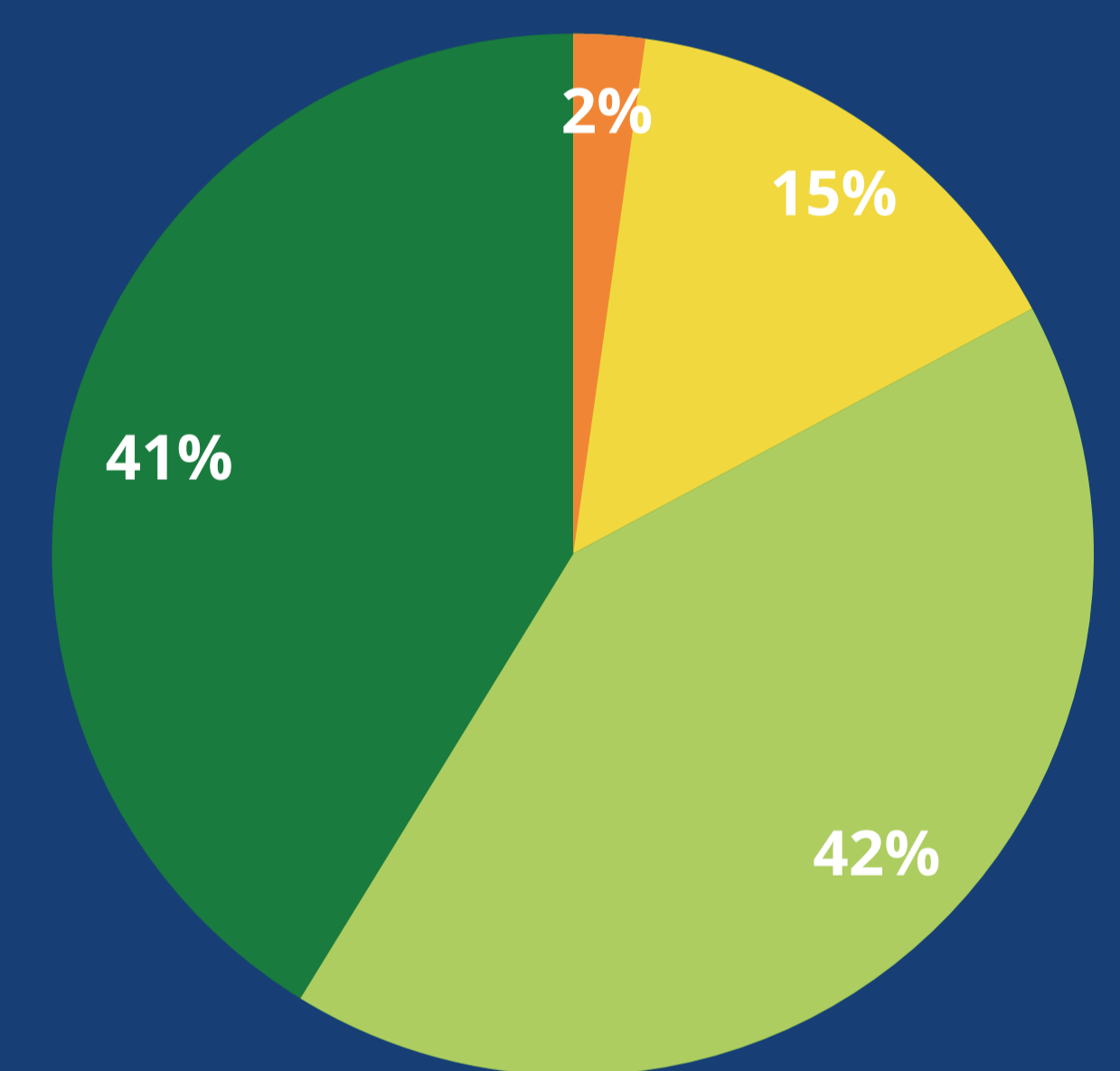
Experience of clinicians

- 7 years (IQR: 5-11 years)
- 4 years (IQR: 2-6 years)

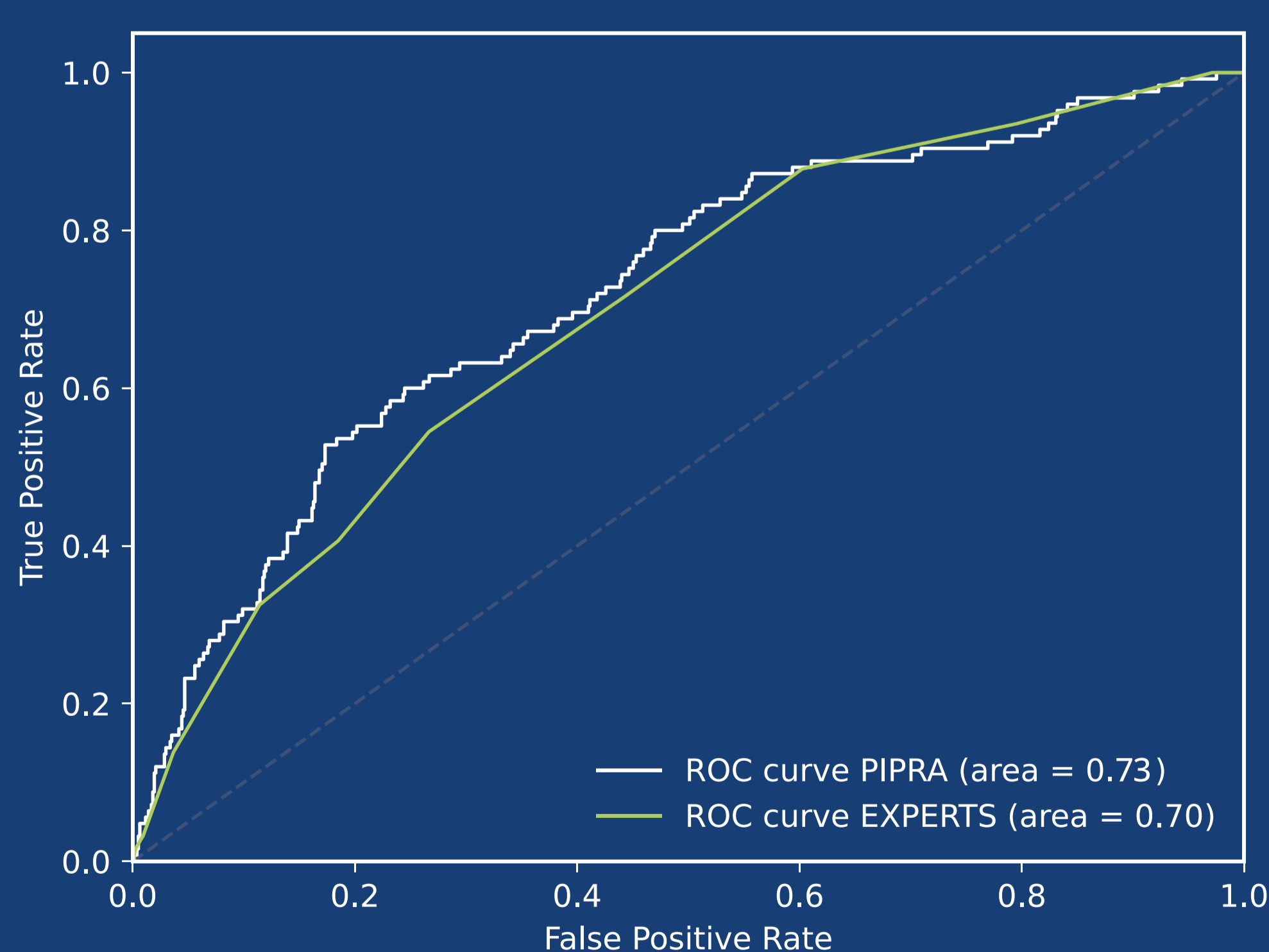


Risk stratification according to clinicians

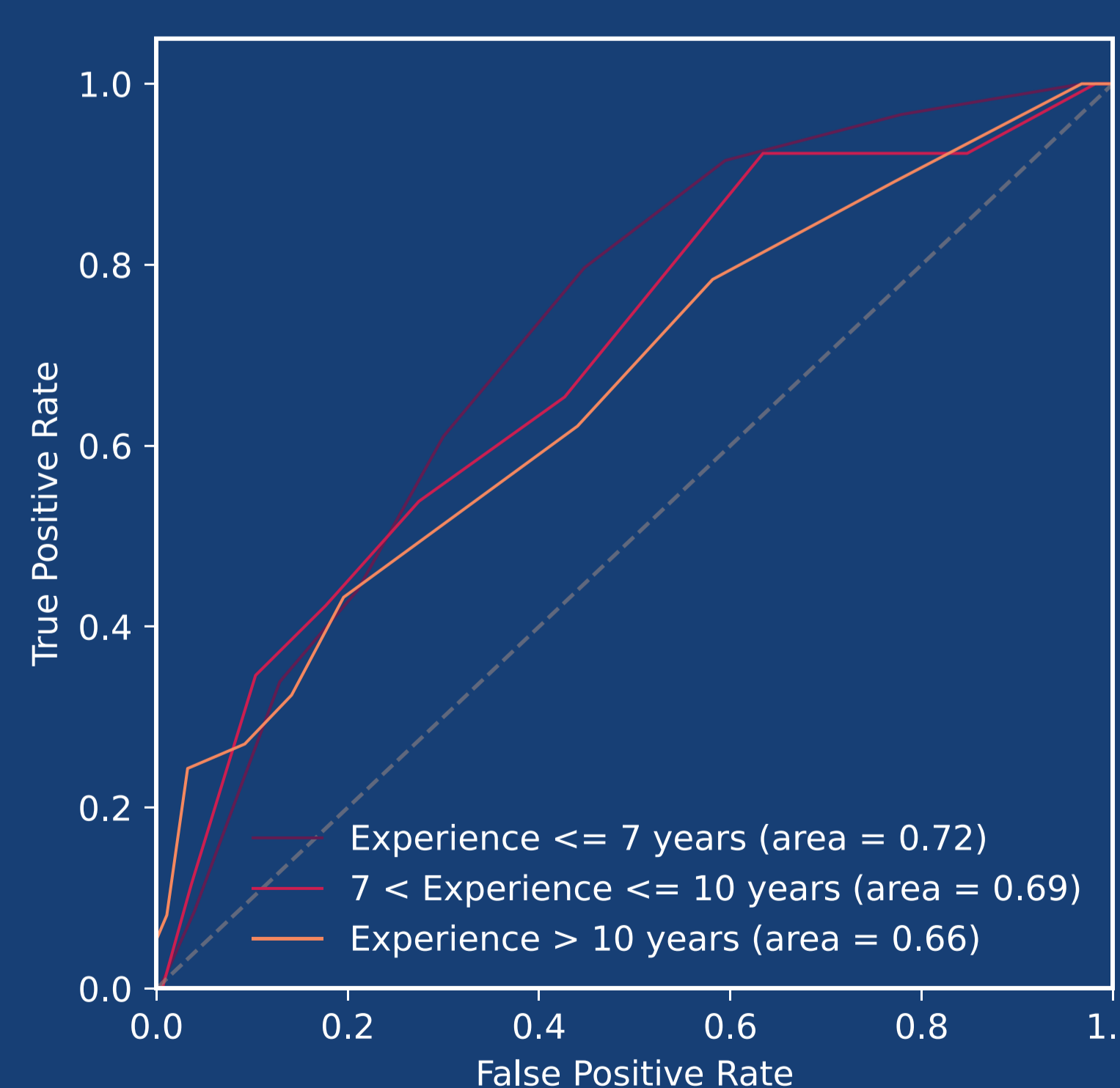
- Very high risk
- High risk
- Medium risk
- Low risk



Receiver operating characteristic (ROC) Curve

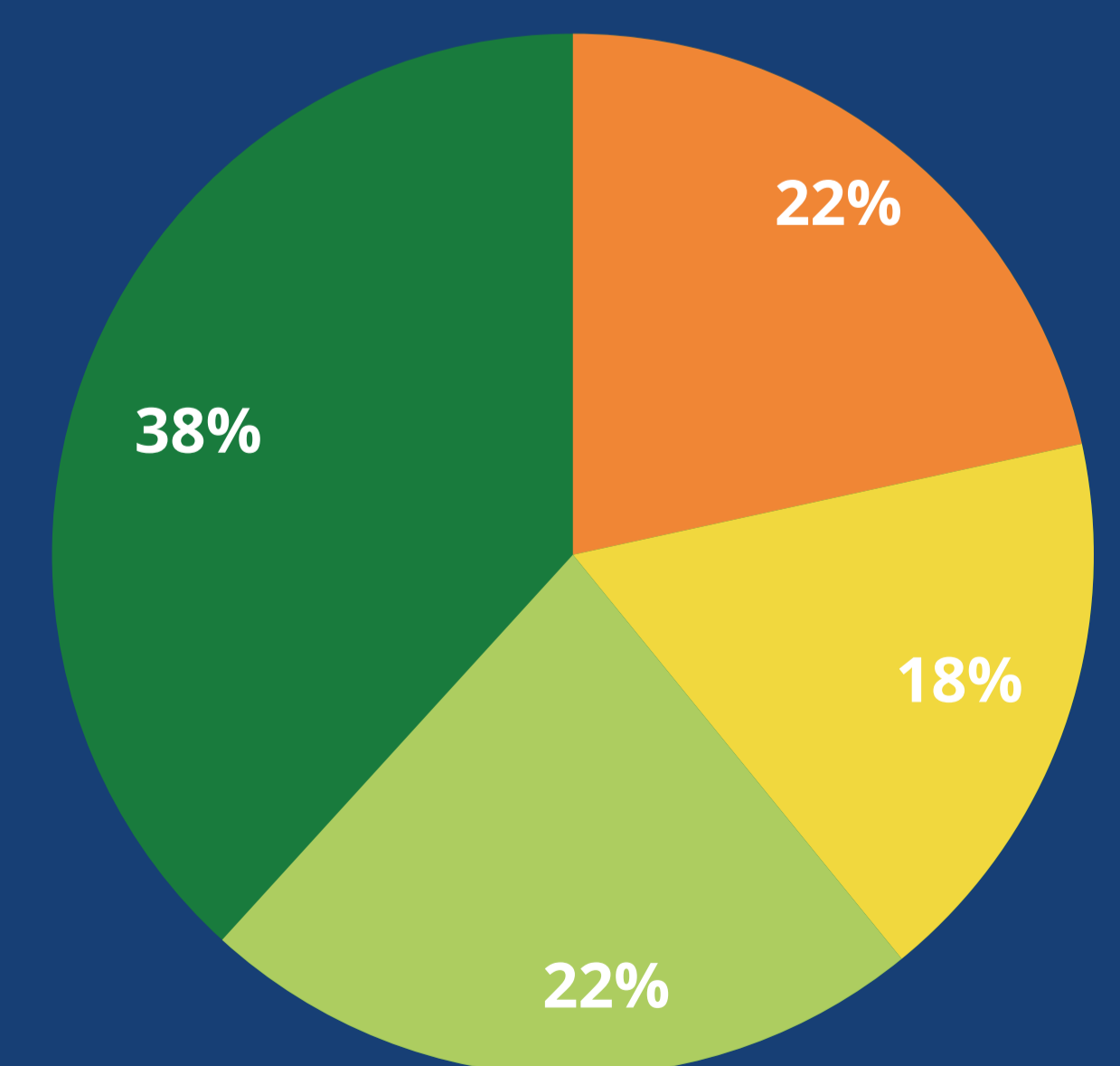


(ROC) Curve - different experience levels



Risk stratification according to PIPRA

- Very high risk
- High risk
- Medium risk
- Low risk



CONCLUSION:

- The PIPRA model is at least as good as junior clinicians but better than senior clinicians
- Systematically done with no extra effort from clinicians.

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