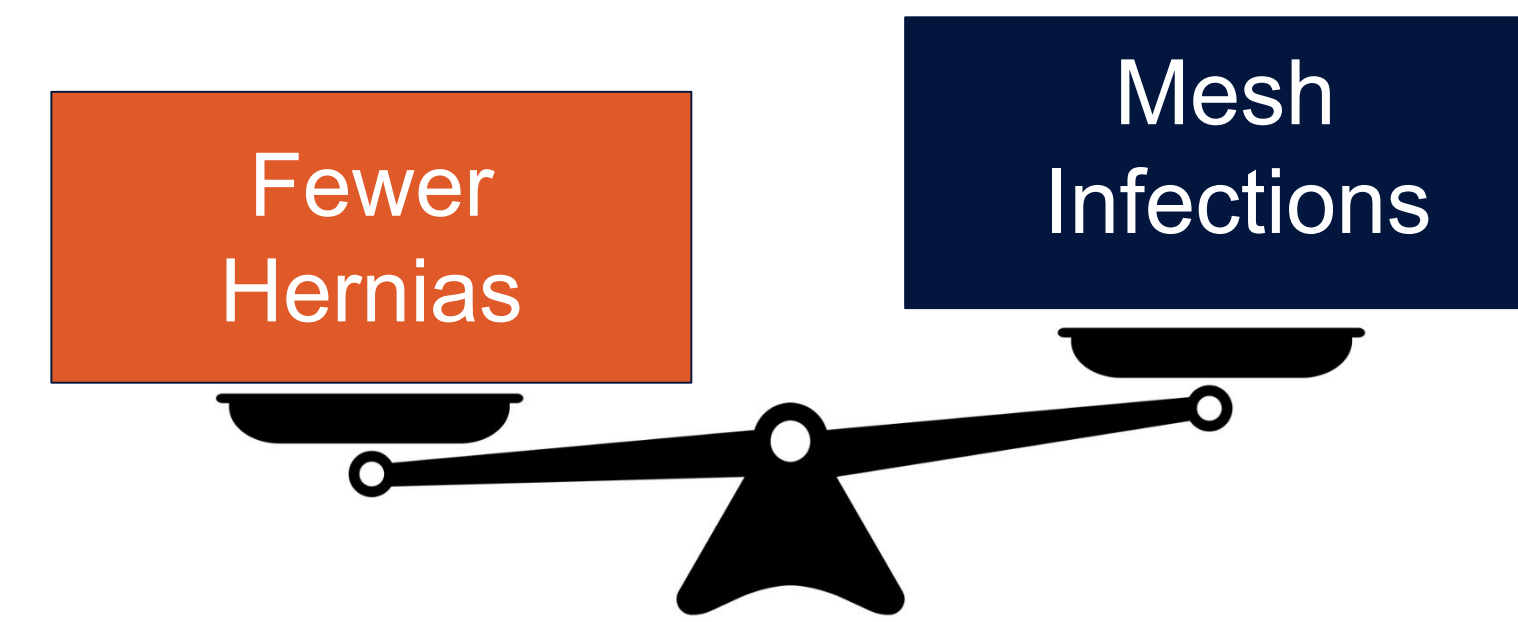


Assessment of Patient and Surgeon Perception on Prophylactic Mesh: A Standard Gamble

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Background

- Ventral incisional hernia (VIH) is a common complication after abdominal surgery. One option to prevent VIH is the use of prophylactic mesh, but this comes with its own risks, including wound complications.



- Prophylactic mesh increases wound complications by 0.7% while decreases hernia by 5%.^{1,2}

Objective

- Our aim was to determine what percent risk of wound complications surgeons and patients would be willing to accept by using prophylactic mesh for a reduced risk of VIH.

Methods

- We performed a cross-sectional standard gamble study with three clinical scenarios: abdominal surgeries at low, medium, and high-risk of VIH and wound complications.
- Standard Gamble is the gold standard in understanding personalized healthcare choices, with each choice associated with a certain amount of risk. In the healthcare context, standard gamble assesses minimum percent risk of the worst complication a patient would accept in favor of complete resolution of disease.^{3,4}
- Participants were given an option of suture or mesh closure and provided the estimated mean risk of VIH with either technique.
- In a stepwise fashion, participants were provided increasing risks of wound complications until they chose suture over mesh.
- Estimated mean risk of VIH and wound complications were compiled through systematic review of randomized controlled trials and ACS-NSQIP risk calculator.

Results

- Overall, 35 surgeons and nine patients were surveyed. For the low, medium, and high-risk scenarios surgeons' and patients' maximal accepted risks was 3% and 11%, 11% and 18%, and 23% and 28%, respectively.
- For all three scenarios, surgeons reported risk-tolerance of prophylactic mesh far below the ACS-NSQIP risk calculator while patients were willing to accept more risk than the surgeons.

Images

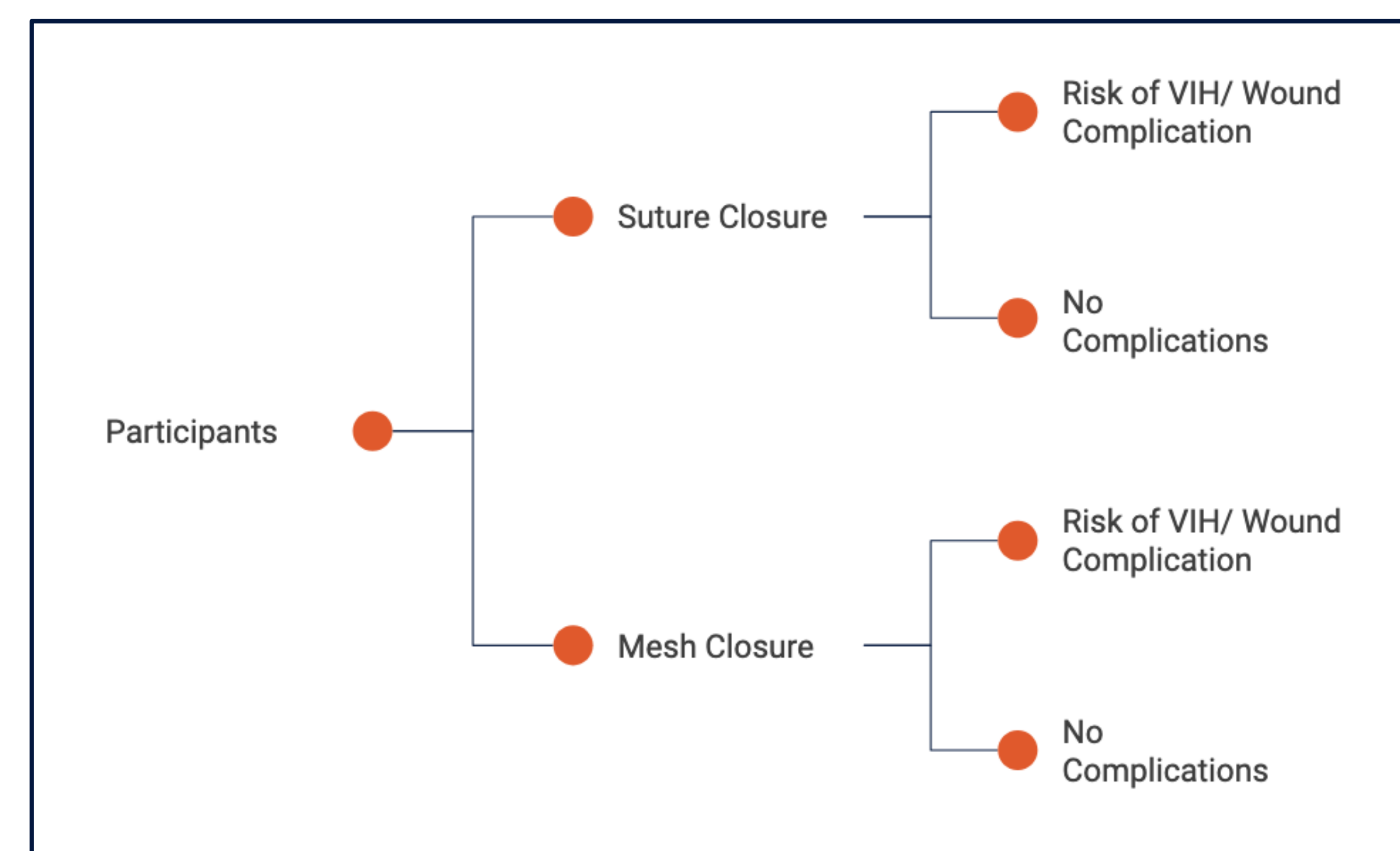


Figure 1: Standard Gamble

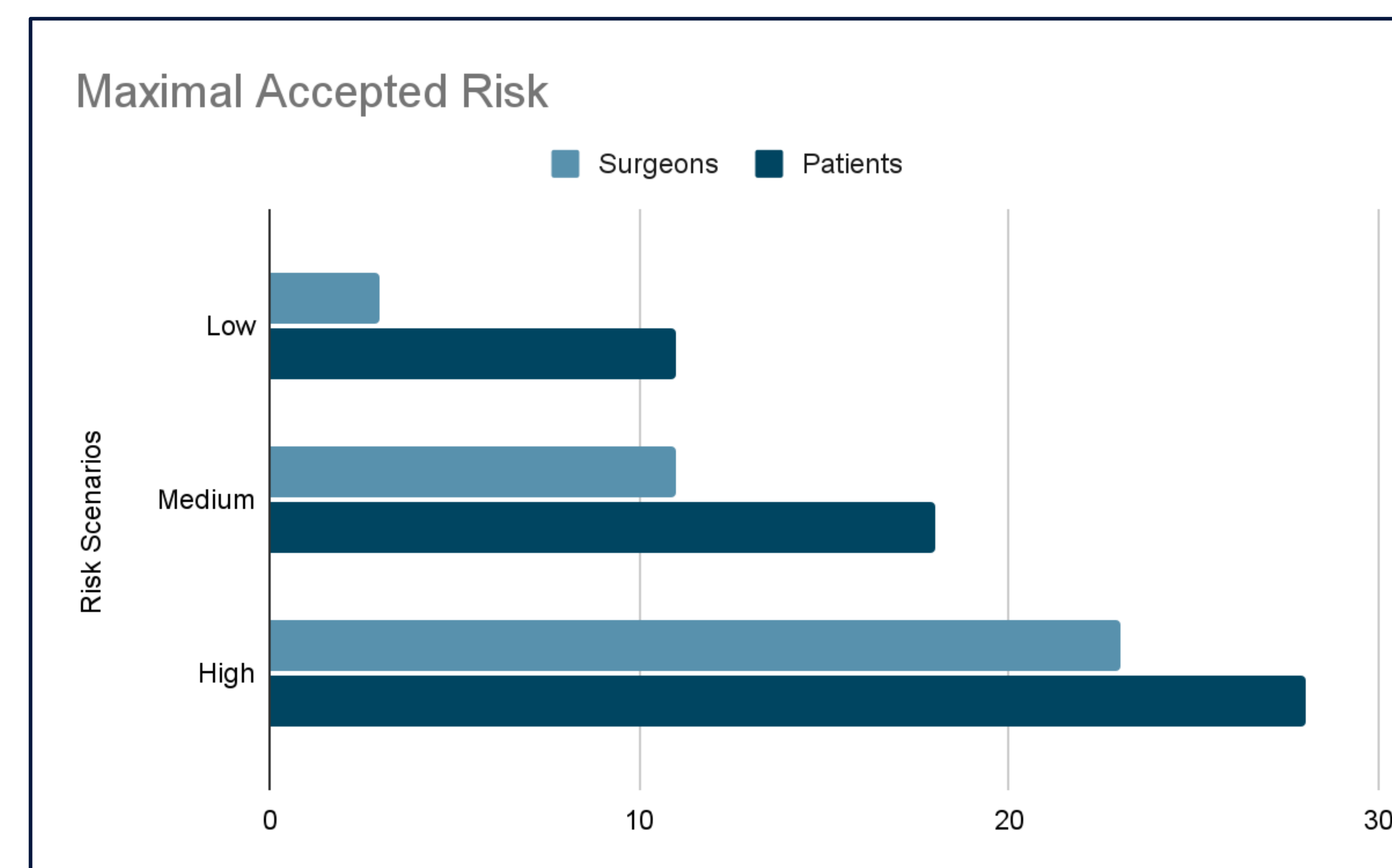


Figure 2: Maximal Accepted Risk in Low, Medium, and High Risk Scenarios

Discussion

- This study assessed surgeons versus patients' willingness to accept risk of prophylactic mesh for the benefit of preventing hernia.
- The evidence of prophylactic mesh preventing VIH is growing with an increased number of randomized controlled trials and systematic reviews/meta-analyses of systematic reviews.⁷
- The surveyed surgeons overall did not have a realistic assessment and expectation of complication rates with or without the use of mesh and therefore, were only willing to accept prophylactic mesh at unrealistically low percentages.
- Their tolerance for risk was even lower than the baseline risk of wound complications with current care (sutures).

Conclusion

- Surgeons and patients have different risk tolerances for various types of complications.
- Substantial education is needed for both surgeons and patients prior to widespread adoption of prophylactic mesh.

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