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Robotic versus Laparoscopic Roux-en-Y Gastric Bypass: Retrospective, Single-center Study comparing Metabolic Outcomes

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No potential conflict of interest to report

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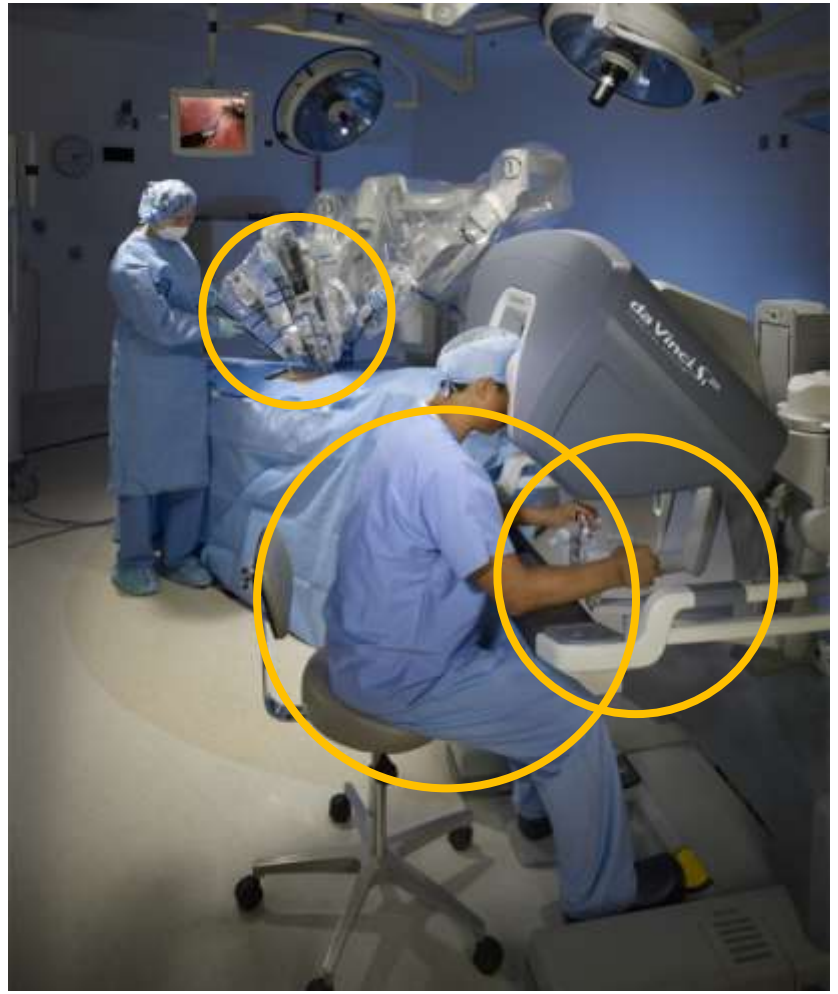
Background

- One of the most frequently performed bariatric surgery in the UK [1]

- Gold standard approach is laparoscopic
- Robotic allows for
  - Elimination of torque
  - Better ergonomics

- Inconclusive data in literature

Aim: compare 1-year metabolic outcomes



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1. National Obesity Audit

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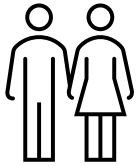
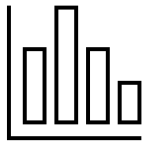
Method

January 2016 to January 2022



Inclusion: all patients who underwent primary robotic or laparoscopic RYGB

Outcomes: % excess weight loss, change in HbA1c, number of medications needed for DM/ HTN, CPAP use



Mann Whitney U/ T-test/ chi-squared (R v4.2.2)

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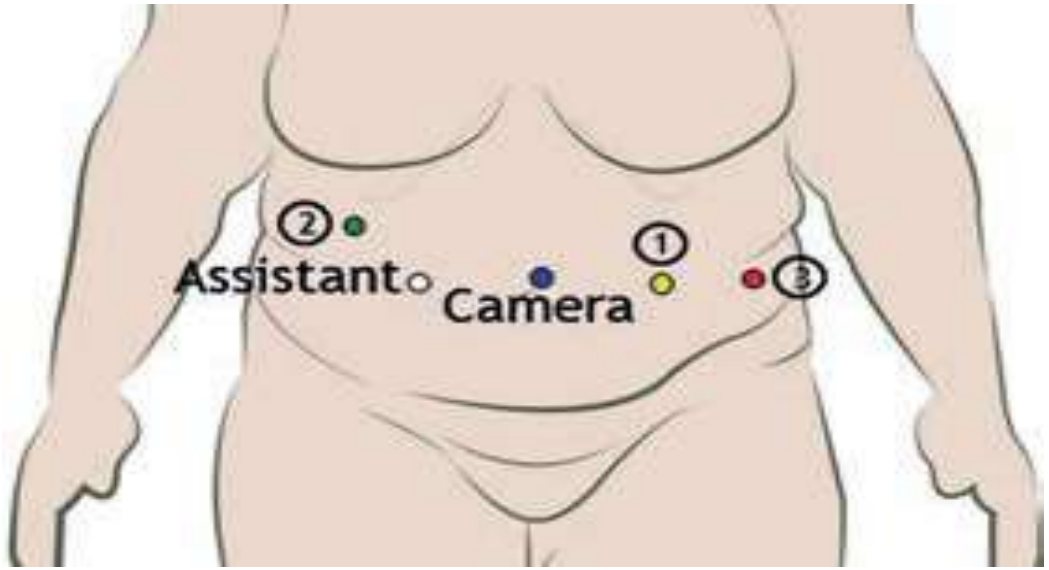
Method

Da Vinci Si



Port sites for robotic RYGB used at our centre. (Patel 2018)

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Results

Patient demographics

	Laparoscopic n = 313	**Robotic n = 85**	***p***
Age (range)	47 (19-69 years)	49 (28-65 years)	0.40
Pre-op BMI (kg/m^2)	43.9	42.5	0.56
Length of stay, median (range)	1 day (1-35 days)	2 days (1-39 days)	0.20

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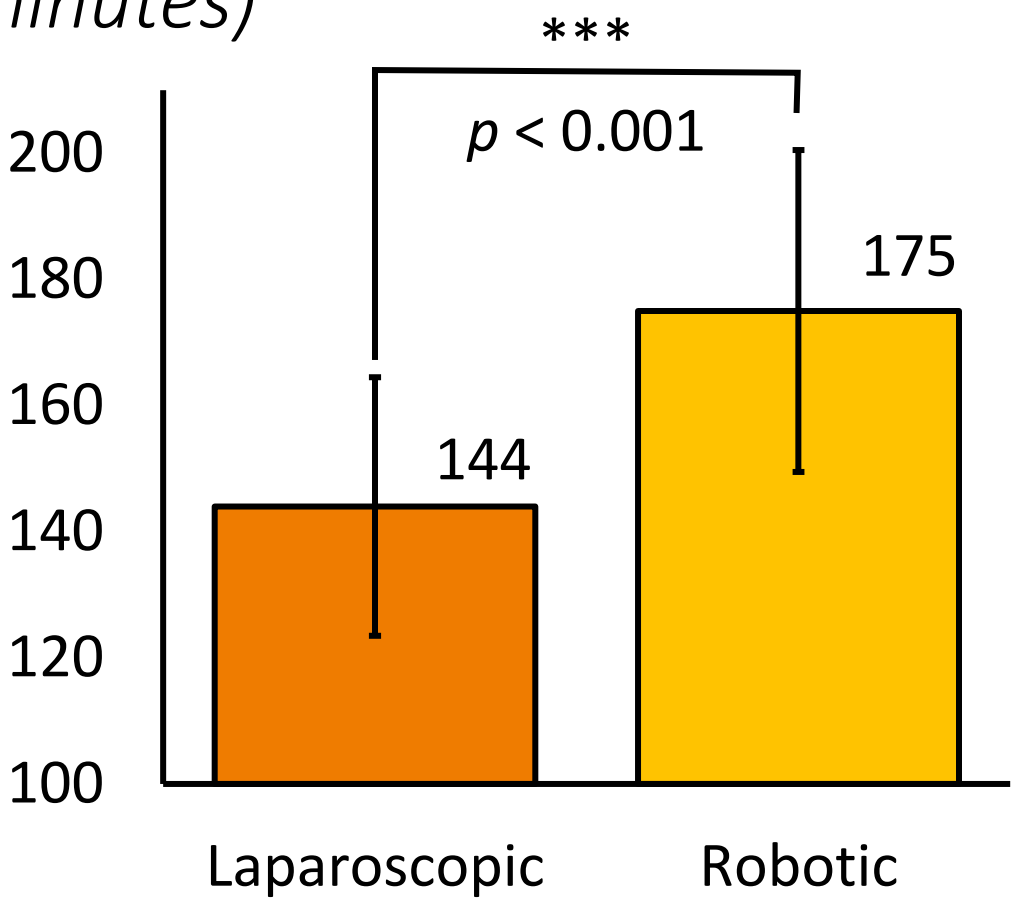
Results

Operative time (minutes)



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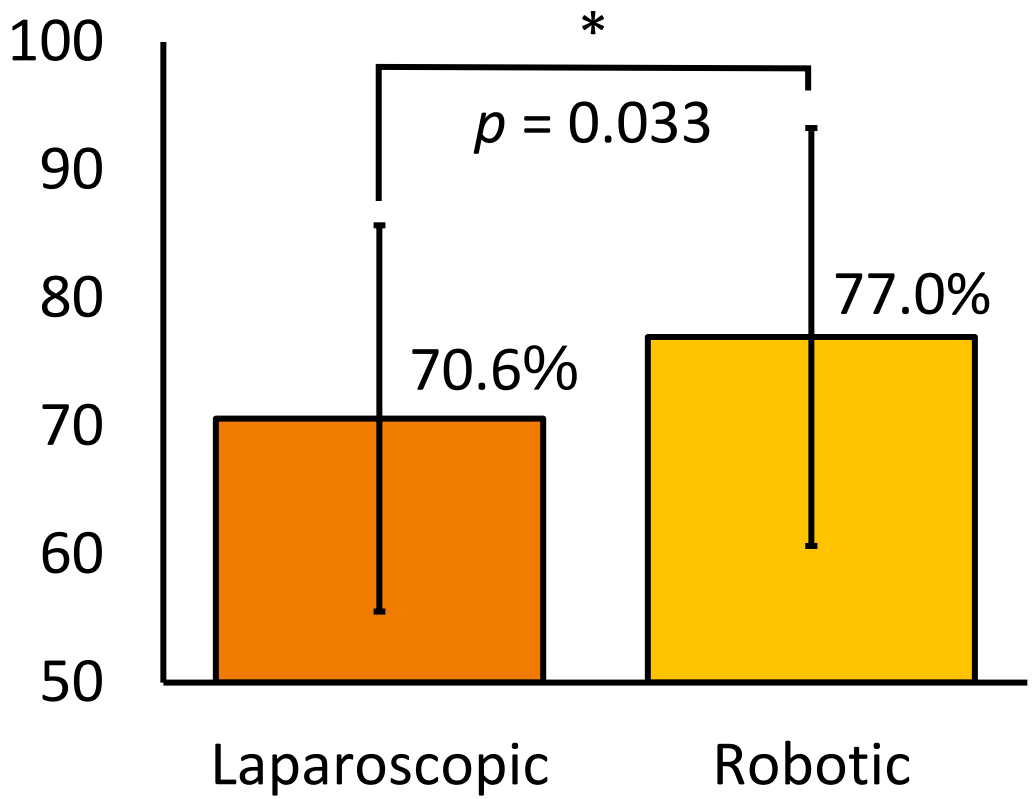
Results

% Excess weight loss



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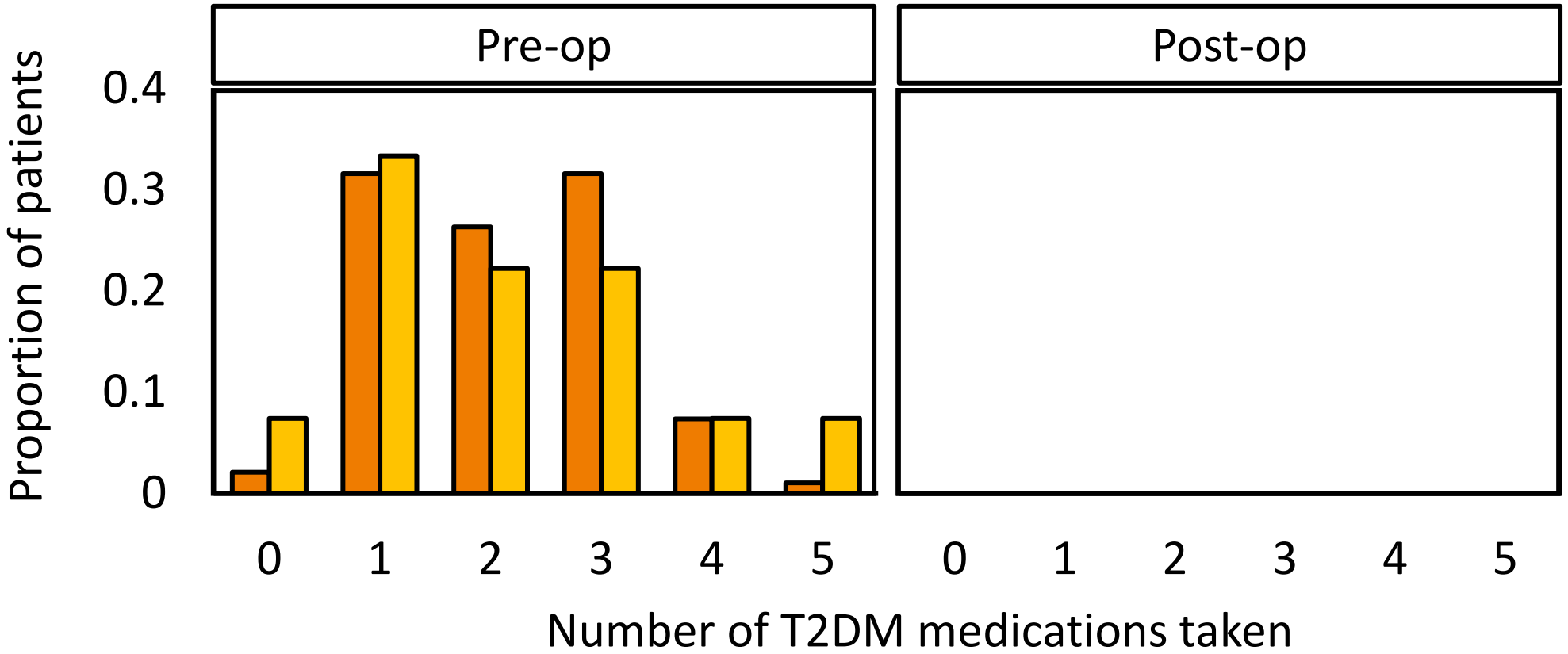
Results

T2DM medications



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Conclusion

Statistically significant increase in % excess weight loss seen with robotic RYGB

- Technical differences in gastro-jejunal anastomosis

Longer operative time with robotic approach

Long term outcomes at 3 and 5 years post-op

Robotically sutured gastro-jejunal anastomosis
Jung et al. 2016

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Thank you

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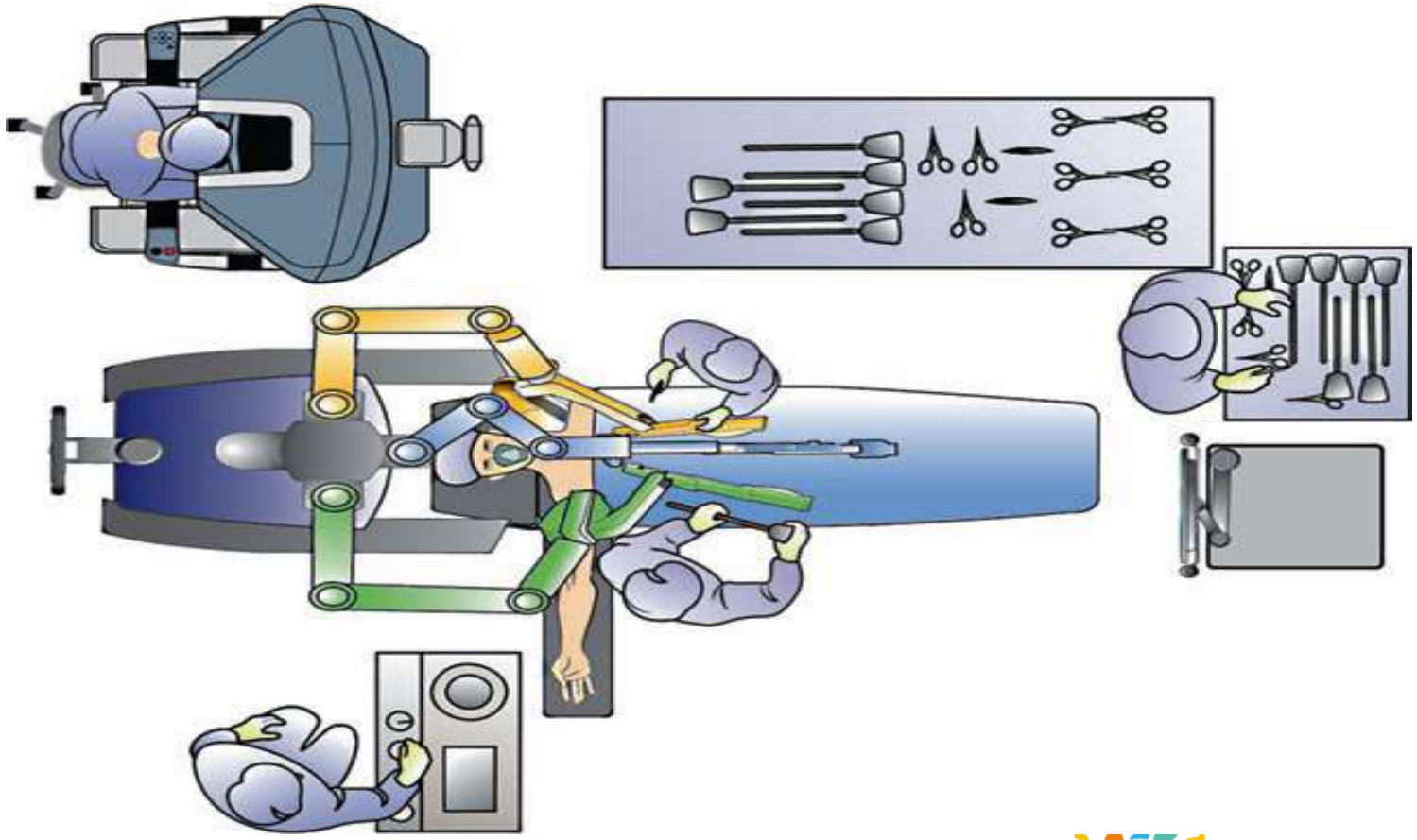

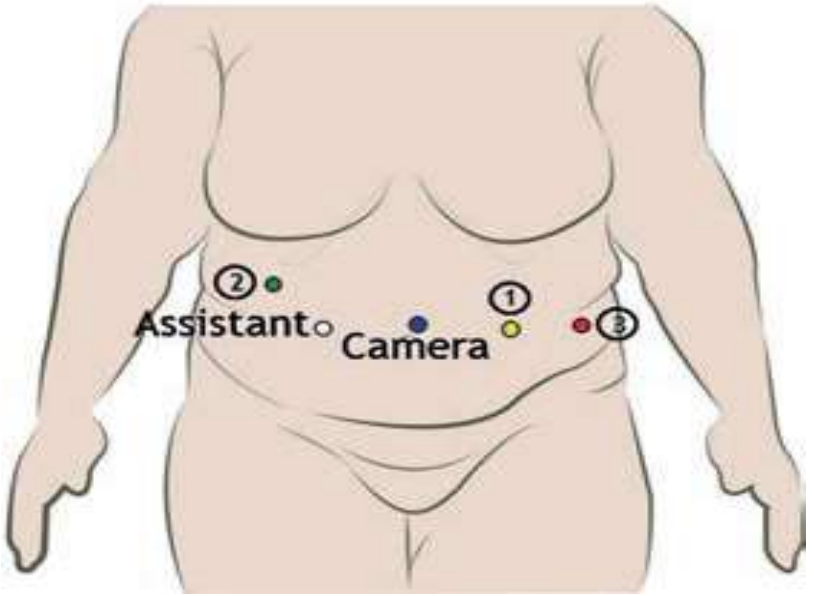

Patel et al. 2018