

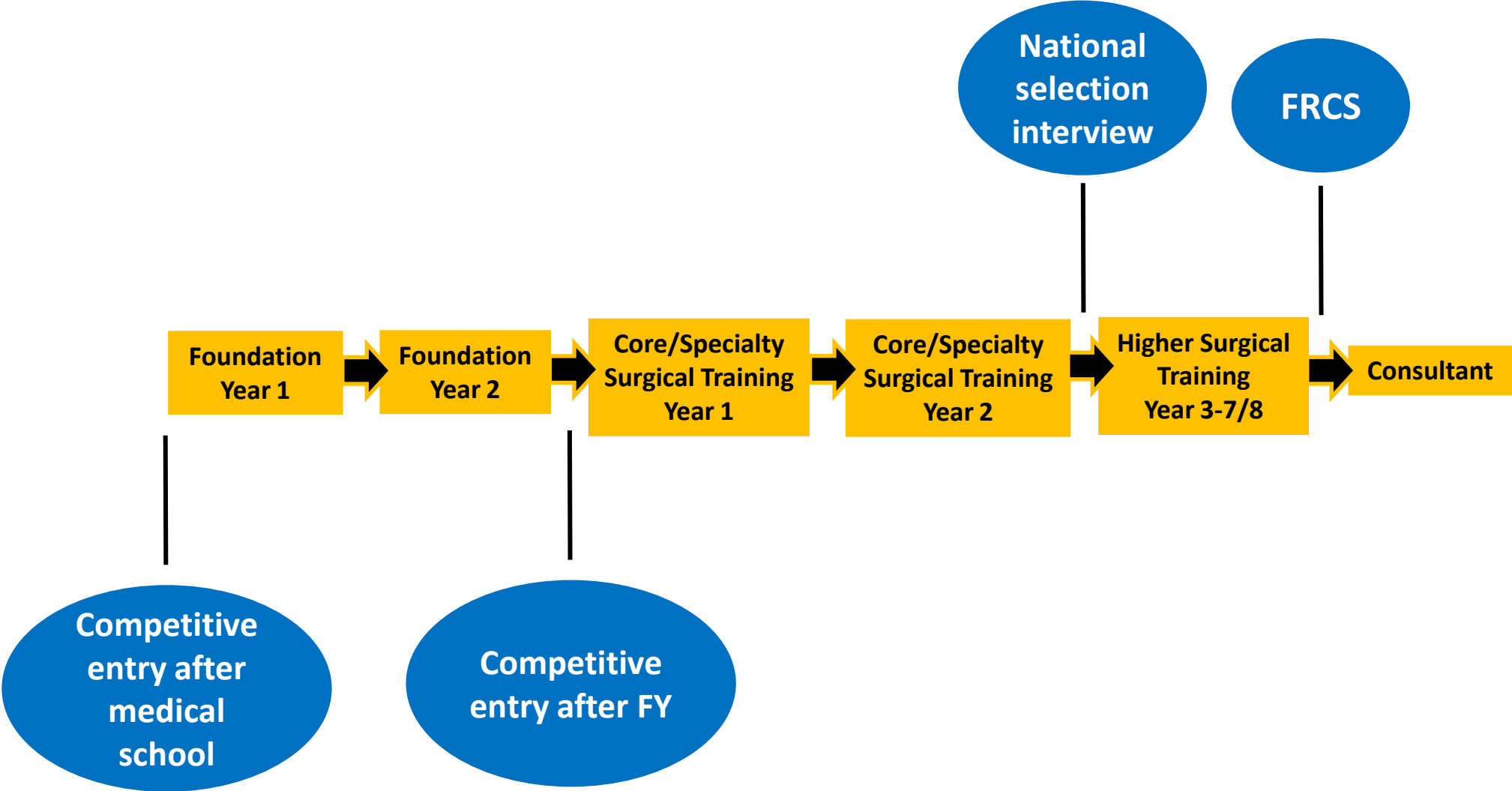
Does the Membership of the Royal College of Surgeons (MRCS) examination predict performance during higher speciality surgical training?

Duncan Scrimgeour, P Brennan, A Lee, G Griffiths and J Cleland

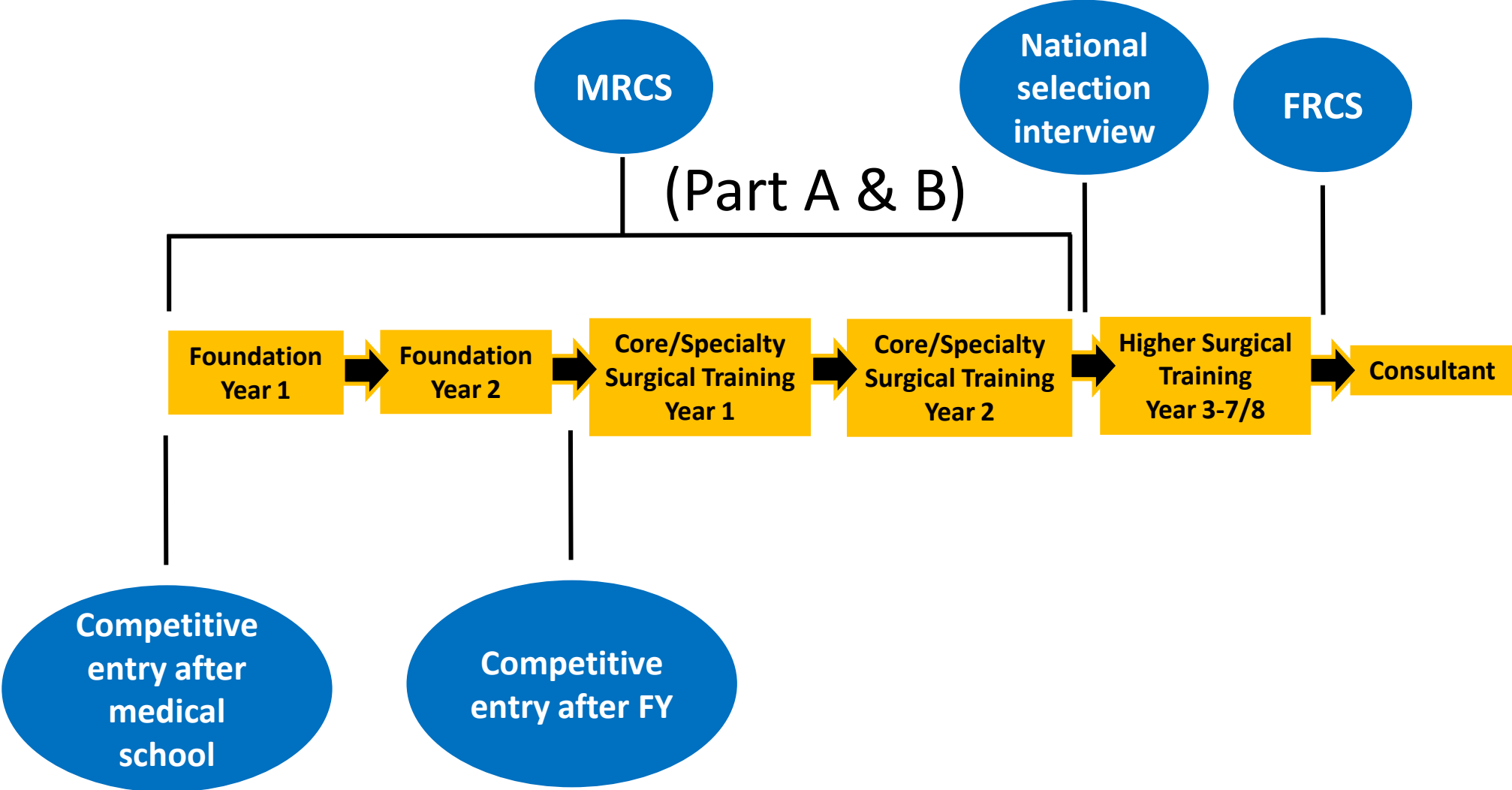
Intercollegiate Research Fellow
General surgery StR, NE of Scotland
PhD candidate, University of Aberdeen

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 [@dsgscrimgeour](https://twitter.com/dsgscrimgeour)

Surgical training in the UK



Surgical training in the UK



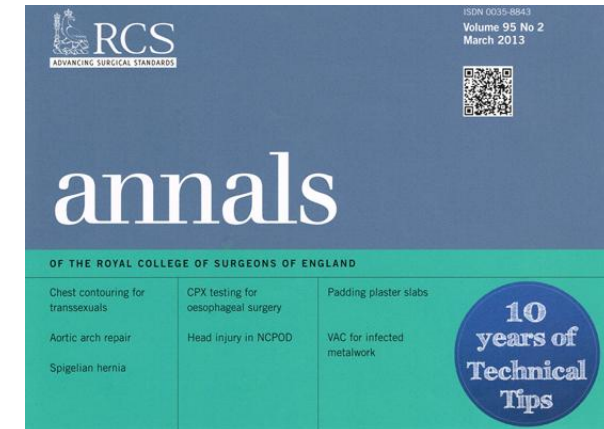
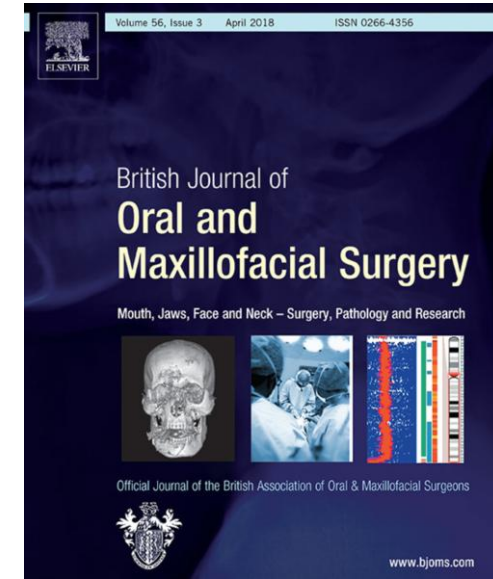
- Part A – written papers
- Part B – OSCE
- Both can be sat from FY1 onwards



ELSEVIER

Which factors predict success in the mandatory UK postgraduate surgical exam: The Intercollegiate Membership of the Royal College of Surgeons (MRCS)?[☆]

D.S.G. Scrimgeour^{a,c,d,*}, J. Cleland^a, A.J. Lee^b, P.A. Brennan^d



Part A MRCS (knowledge) predicts Part B MRCS (clinical)

Original article

BJS Open

Open Access

Impact of performance in a mandatory postgraduate surgical examination on selection into specialty training

D. S. G. Scrimgeour^{1,3,5}, J. Cleland¹, A. J. Lee², G. Griffiths⁴, A. J. McKinley³, C. Marx⁶
and P. A. Brennan⁵



Part B MRCS (clinical) predicts selection score into general and vascular higher surgical training

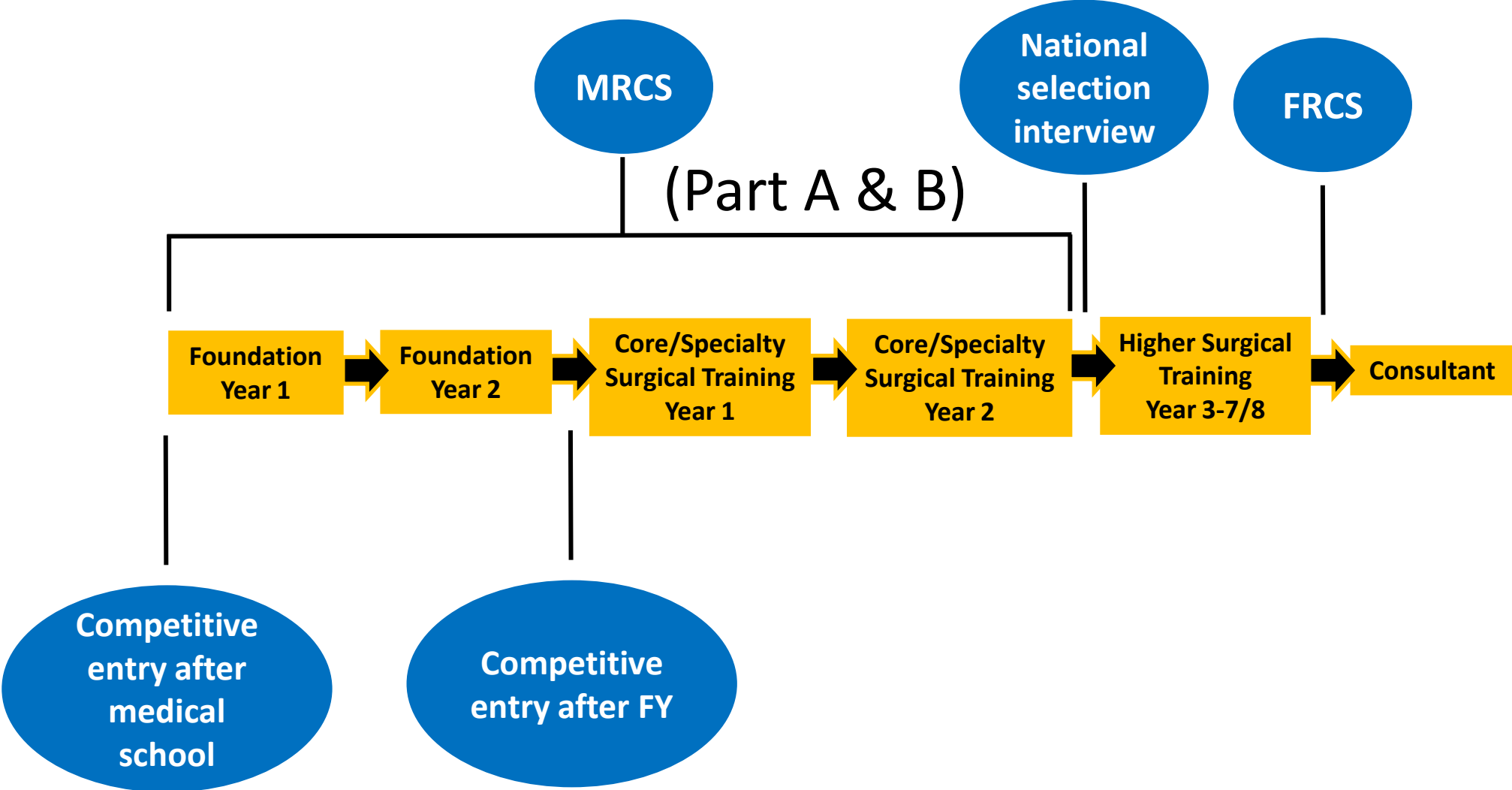
Aim

- To assess the predictive validity of the MRCS further

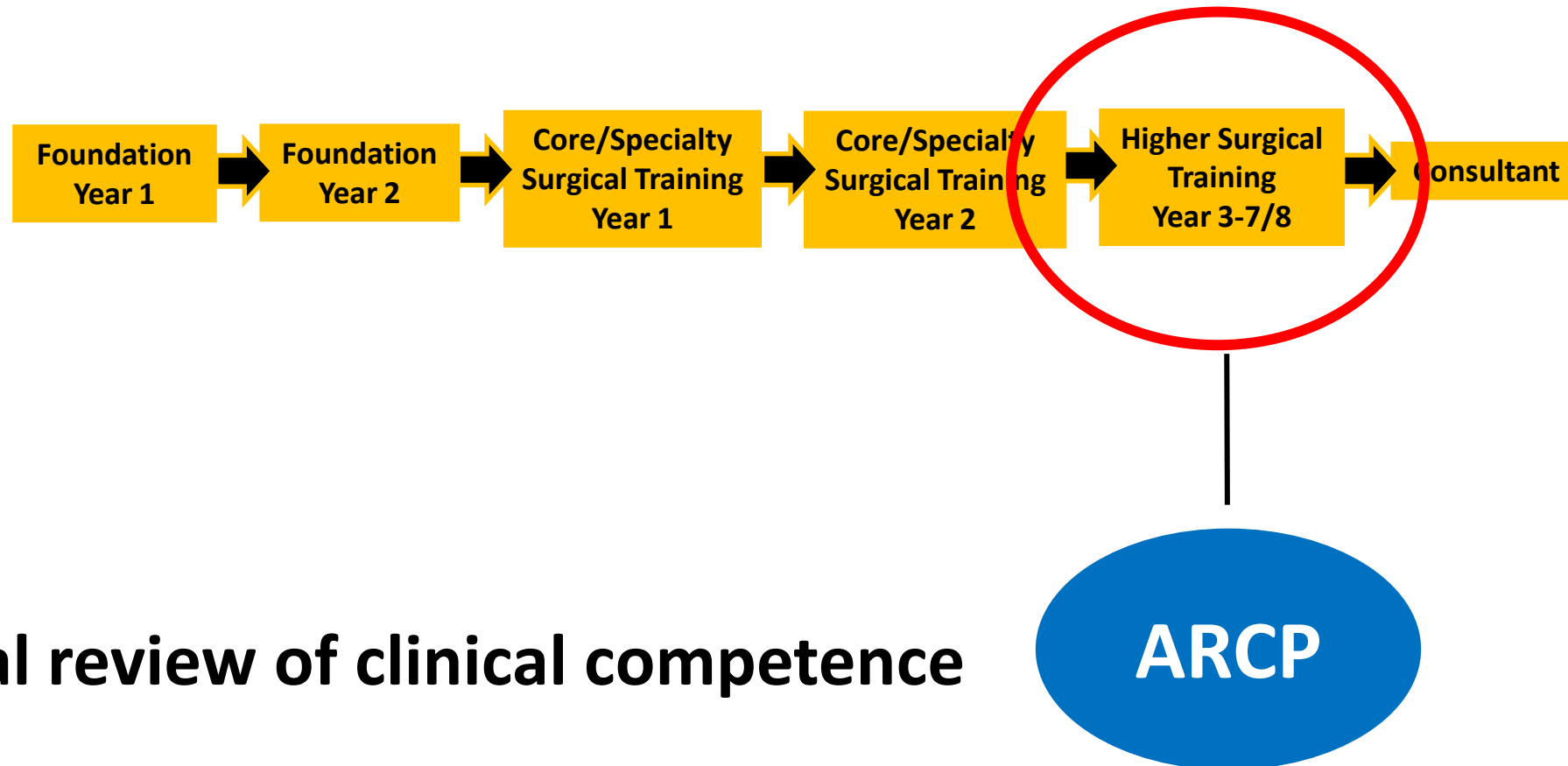
Aim

- To assess the predictive validity of the MRCS further
- We investigated the relationship between performance in each part of the MRCS and performance in clinical practice

Surgical training in the UK



Surgical training in the UK



Annual review of clinical competence (ARCP)

ARCP	
Outcome 1	Satisfactory progress; competences achieved as expected
Outcome 2	May progress but requires specific/targeted training to achieve certain competences
Outcome 3	Inadequate progress – additional training required
Outcome 4	Released from training programme with or without competencies
Outcome 5	Incomplete evidence presented – additional training time may be needed
Outcome 6	Recommendation for completion of training having gained all required competences
Outcome 8	Out of programme research, approved clinical time or a career break

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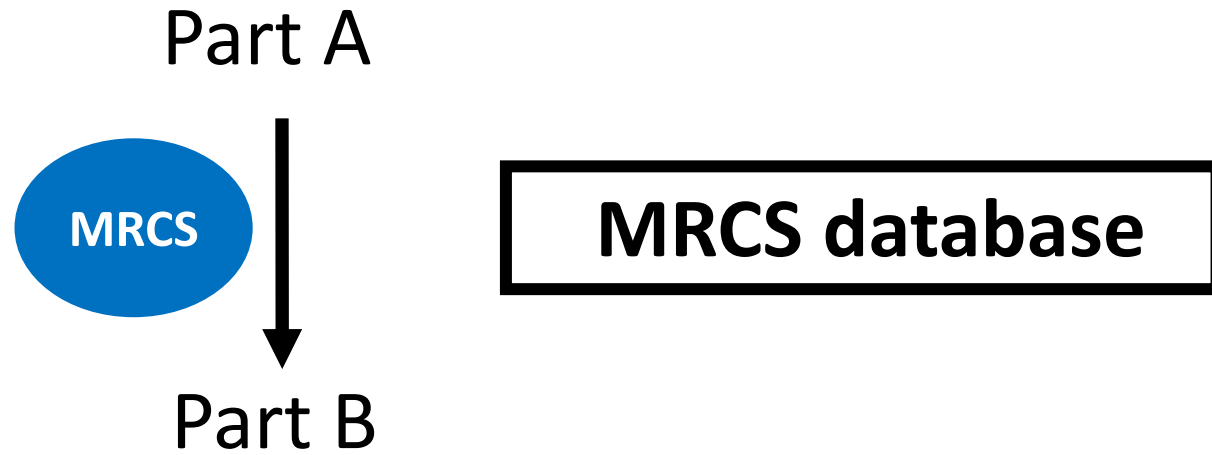
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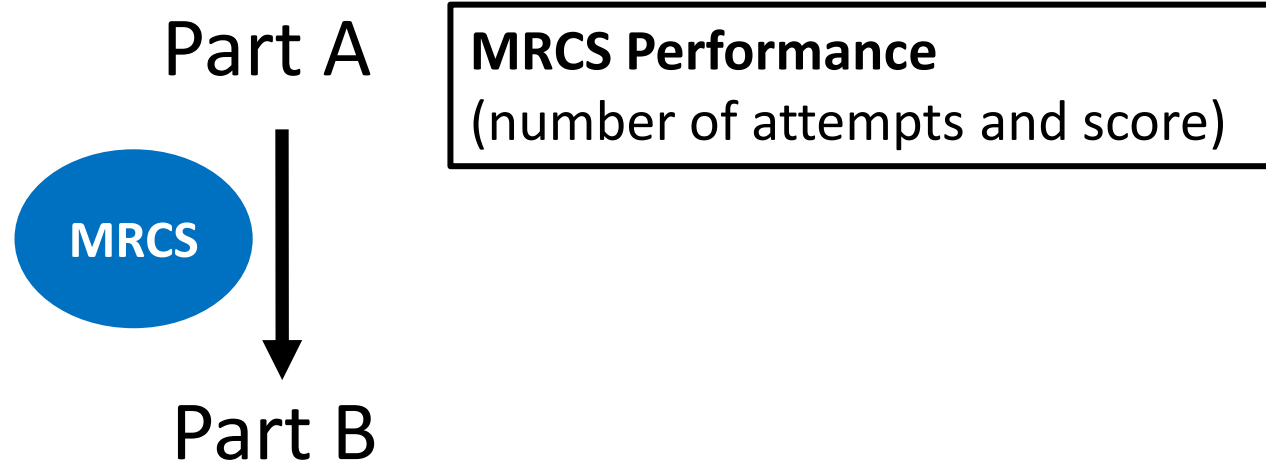
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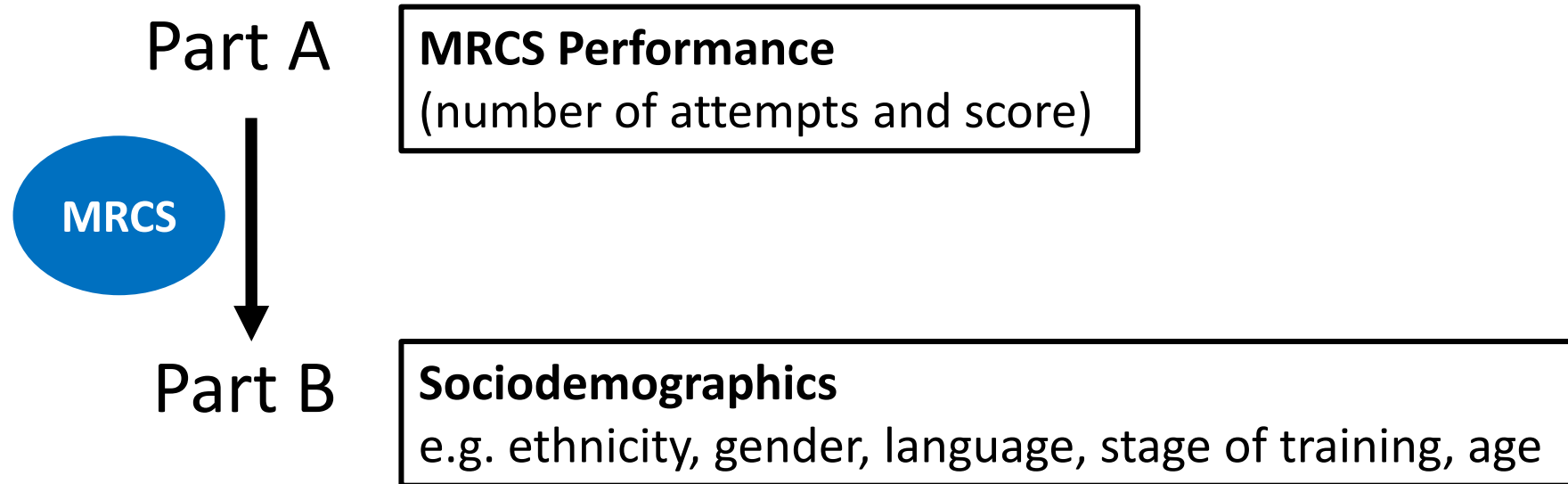
Methods



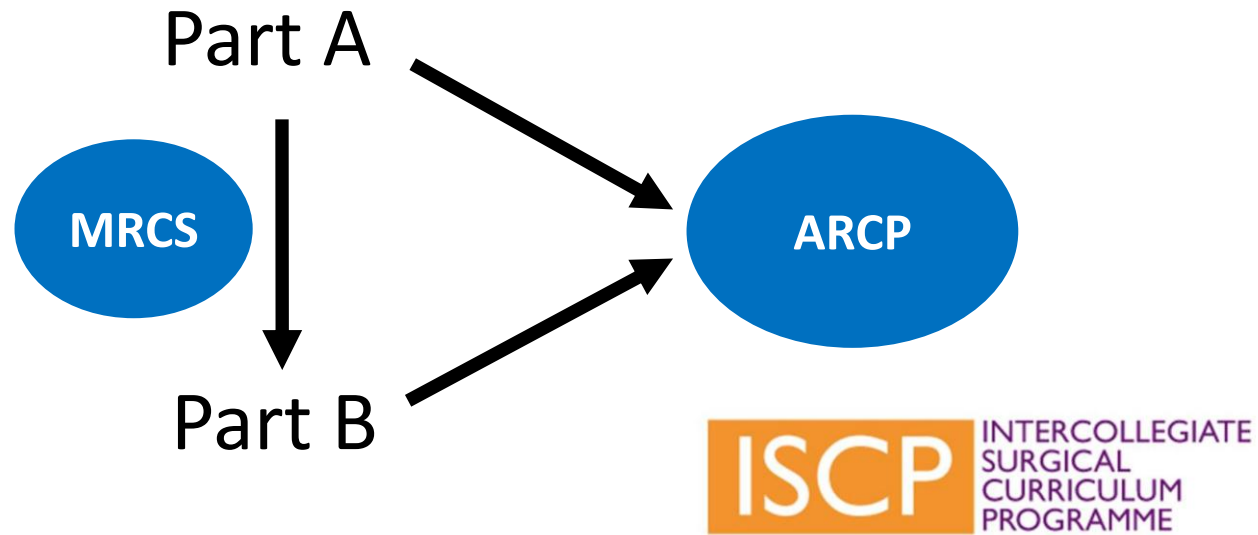
Methods



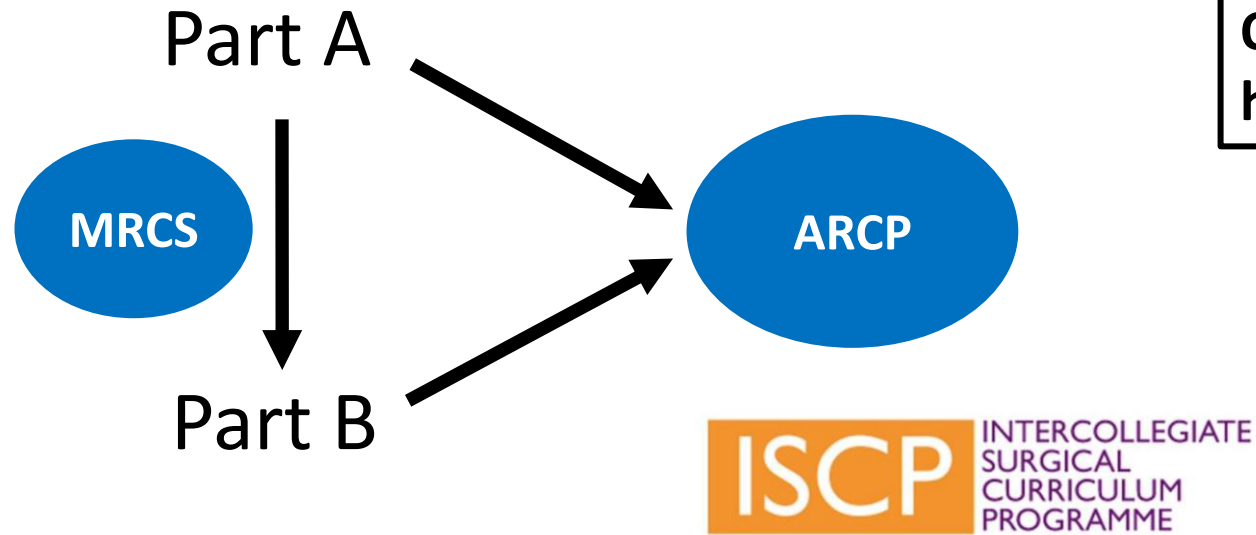
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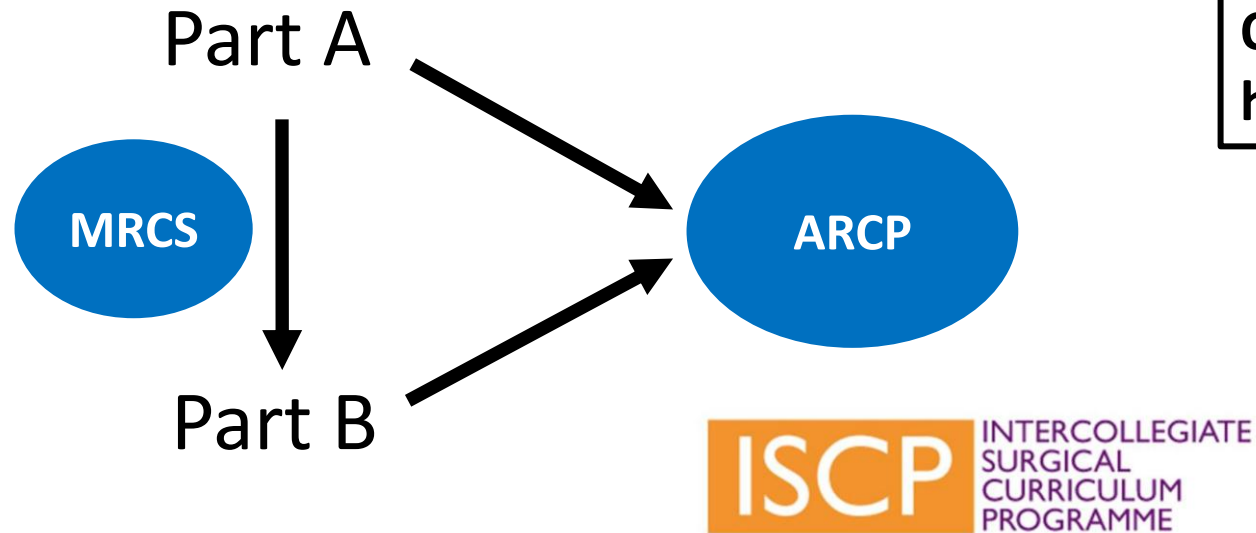


Methods



Only included UK medical graduates in higher surgical training

Methods



Only included UK medical graduates in higher surgical training

Excluded those in temporary posts
e.g. LAT and FTSTA

Recategorised outcomes

- **Satisfactory** only outcomes 1 and 6
- **Unsatisfactory** outcomes 2, 3 and 4
- **Insufficient evidence** outcome 5 but not 2, 3 or 4

Methods

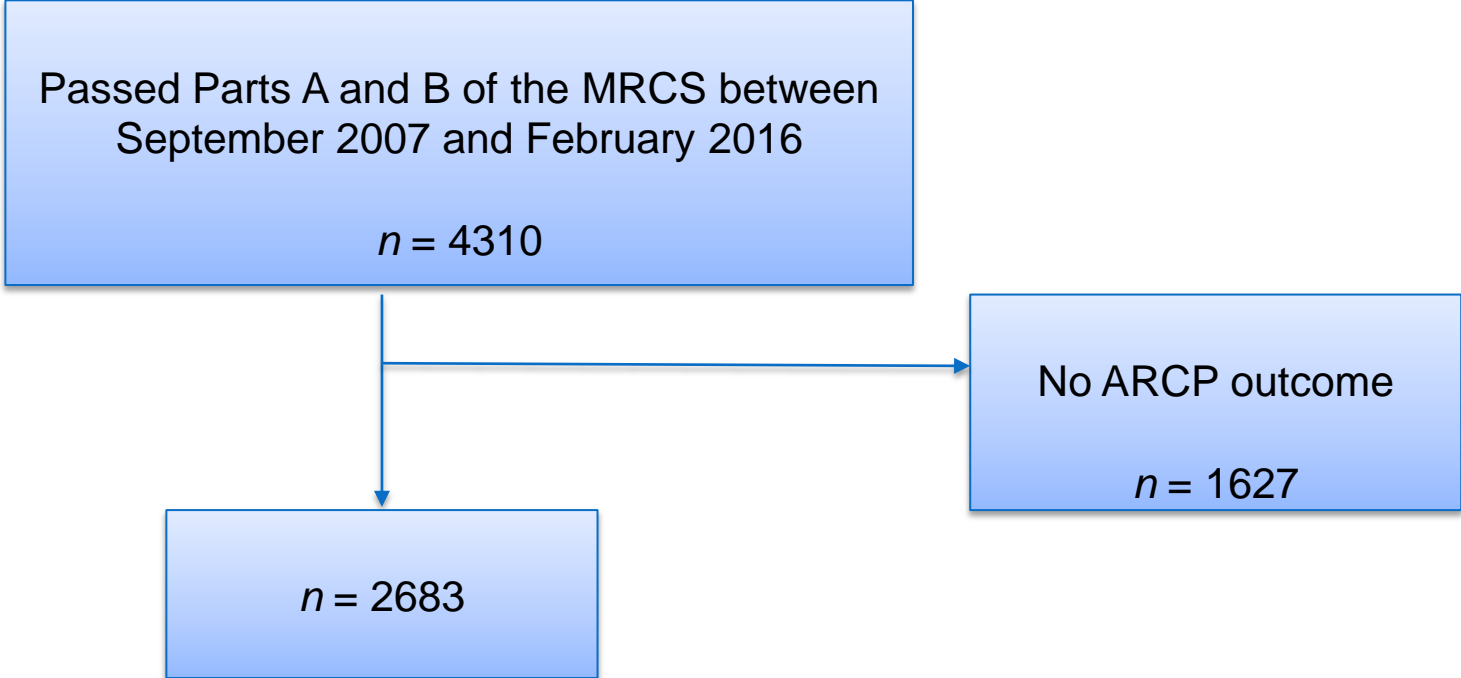
- Multinomial logistic regression analysis
- Predictors of an unsatisfactory and insufficient evidence ARCP outcome

Flow diagram of surgical trainees in the study

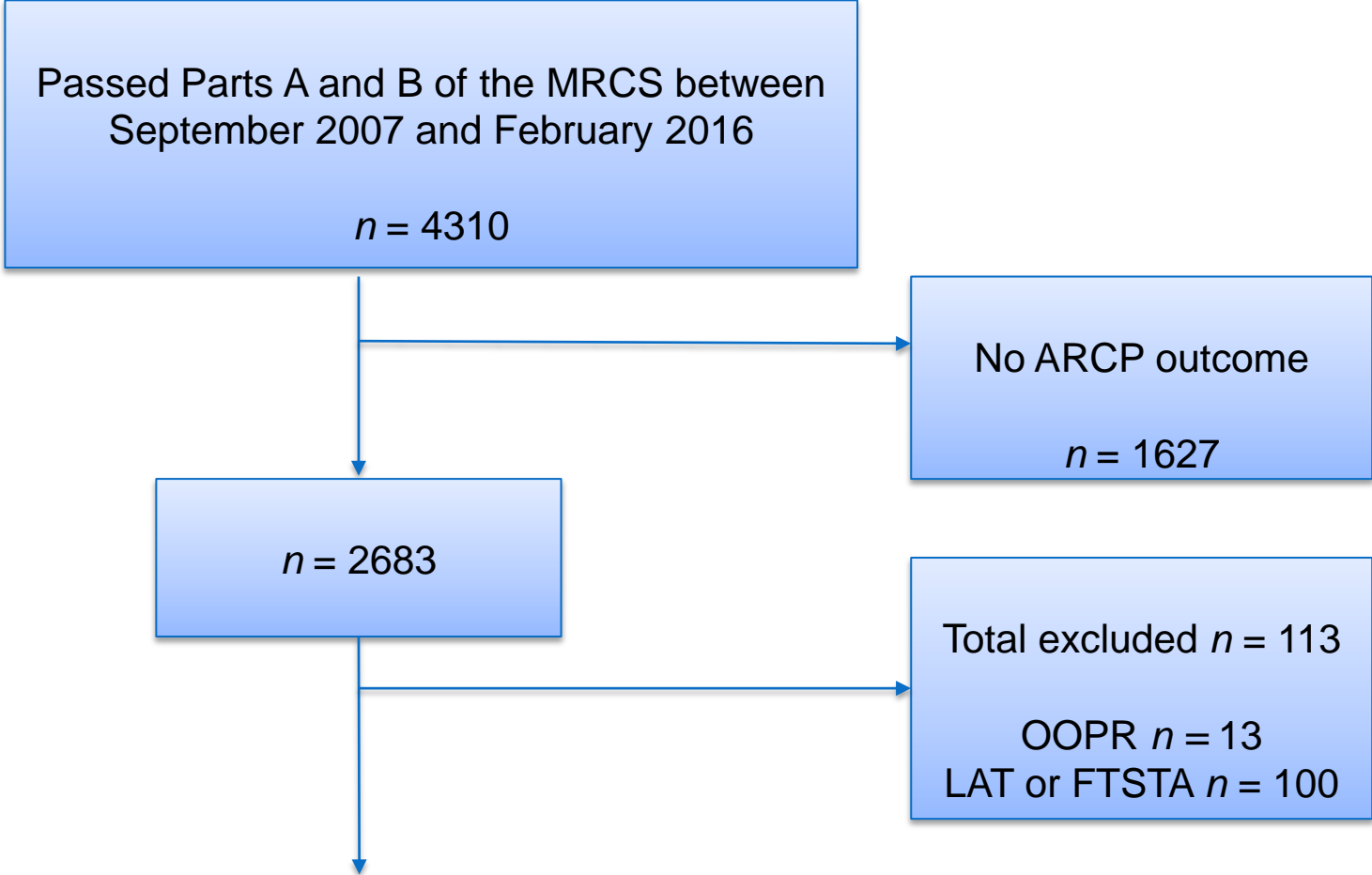
Passed Parts A and B of the MRCS between
September 2007 and February 2016

$n = 4310$

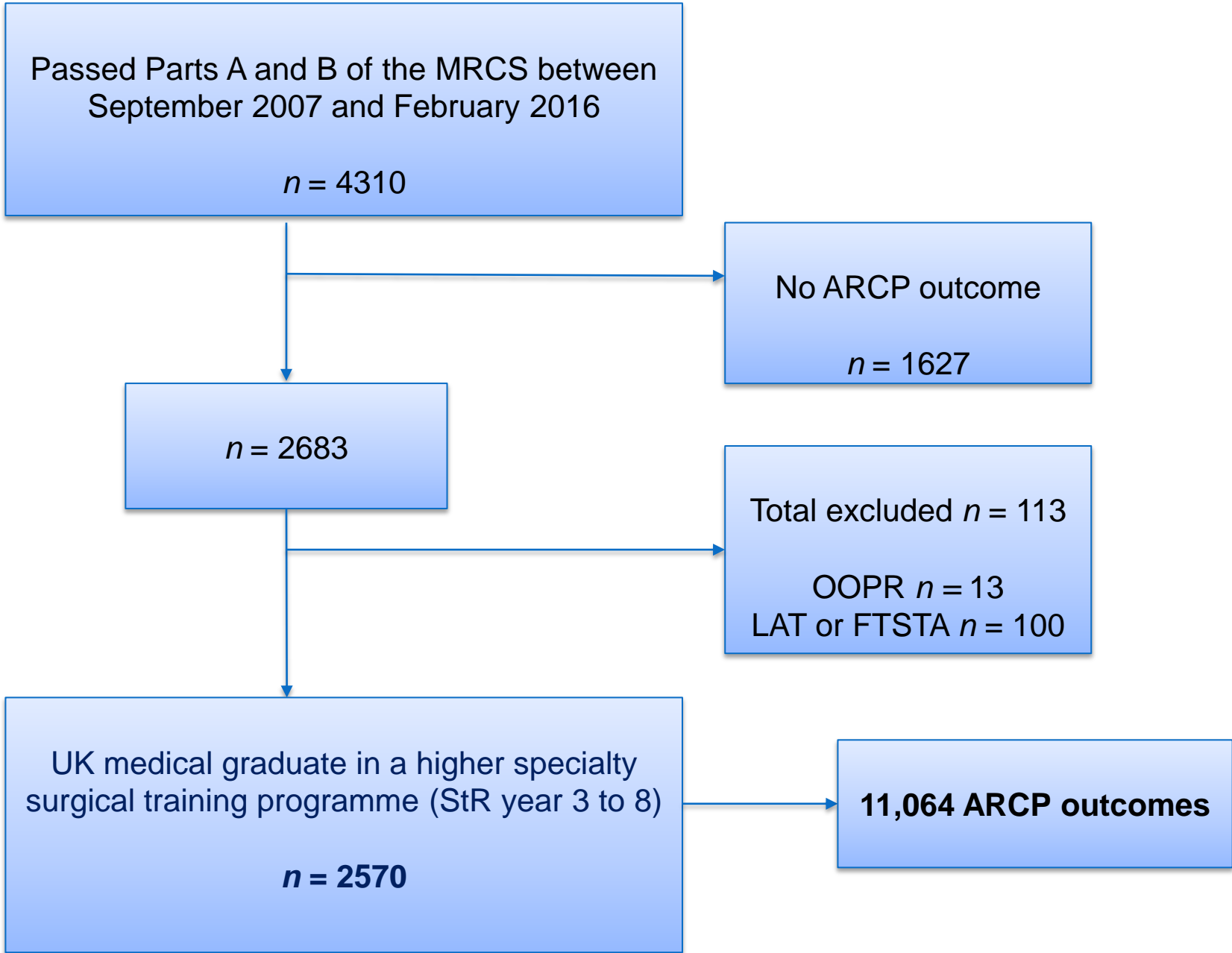
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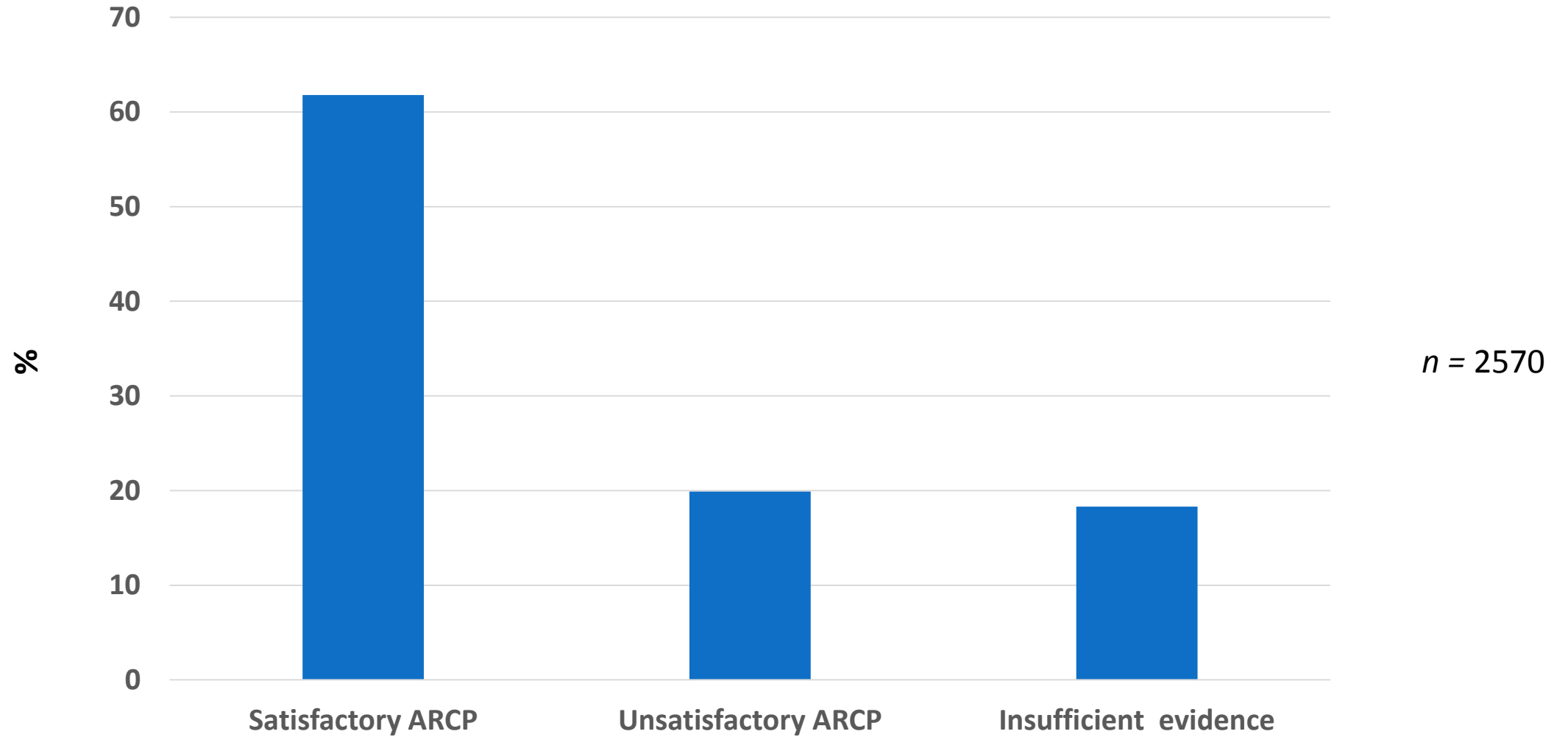
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Flow diagram of surgical trainees in the study



ARCP outcomes during higher surgical training



Predictor	Insufficient evidence ARCP outcome	Unsatisfactory ARCP outcome
	Odds ratio (95 % CI)	Odds ratio (95 % CI)
<u>Model 1*</u>		
MRCS Part A score (% above the pass mark)	1.01 (1.00 to 1.03)	1.00 (0.99 to 1.02)
MRCS Part B score (% above the pass mark)	0.99 (0.98 to 1.00)	0.98 (0.97 to 1.00)
Female gender	0.81 (0.63 to 1.04)	0.81 (0.63 to 1.04)
Age at graduation (<29 years at graduation)	0.88 (0.57 to 1.37)	0.72 (0.49 to 1.07)
Non-white ethnicity	0.94 (0.73 to 1.20)	1.33 (1.05 to 1.68)
Part A MRCS ≥ 2 attempts	0.85 (0.63 to 1.16)	0.92 (0.69 to 1.22)
Part B MRCS ≥ 2 attempts	1.03 (0.76 to 1.39)	1.51 (1.15 to 1.97)
<u>Model 2**</u>		
MRCS Part B score (% above the pass mark)	-	0.98 (0.97 to 1.00)
Non-white ethnicity	-	1.36 (1.08 to 1.71)
Part B MRCS ≥ 2 attempts	-	1.50 (1.16 to 1.94)

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 **36%**

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 **50%**

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- Previous studies tend to focus on scores and not failure/multiple attempts
- Few that have – clear pattern
- **Ethnicity and differential attainment remains a significant and important challenge facing the medical profession**



ROYAL COLLEGE OF
PHYSICIANS AND
SURGEONS OF GLASGOW



UNIVERSITY
OF ABERDEEN



RCSI

Conclusions

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- Multiple attempts at Part B at the beginning of their career more likely to have difficulties throughout surgical training
- Identifying these individuals at the earliest opportunity may help trainers to make appropriate remedial action plans and give appropriate careers advice

Acknowledgements

- The 4 Surgical Colleges and SMERC
- ICBSE
- Cristel Santos - lead database administrator, ISCP

Questions?

