

# STS/EACTS Latin America Cardiovascular Surgery Conference

November 15-17, 2018

Hilton Cartagena | Cartagena, Colombia



## The cancellation of same-day elective and urgent cardiac surgery procedures: a single centre experience

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# Purpose

- Operation cancellation for scheduled surgery is a major cause of inefficiency and poses significant pressure on the National Health Service
  - Setback for patient and families
  - Risks complications for the patients
- **Objectives**
  - Establish the frequency of same-day elective and urgent cardiac surgical cancellation at the Barts Heart Centre
  - Determine the reasons for cancellations and patient outcomes

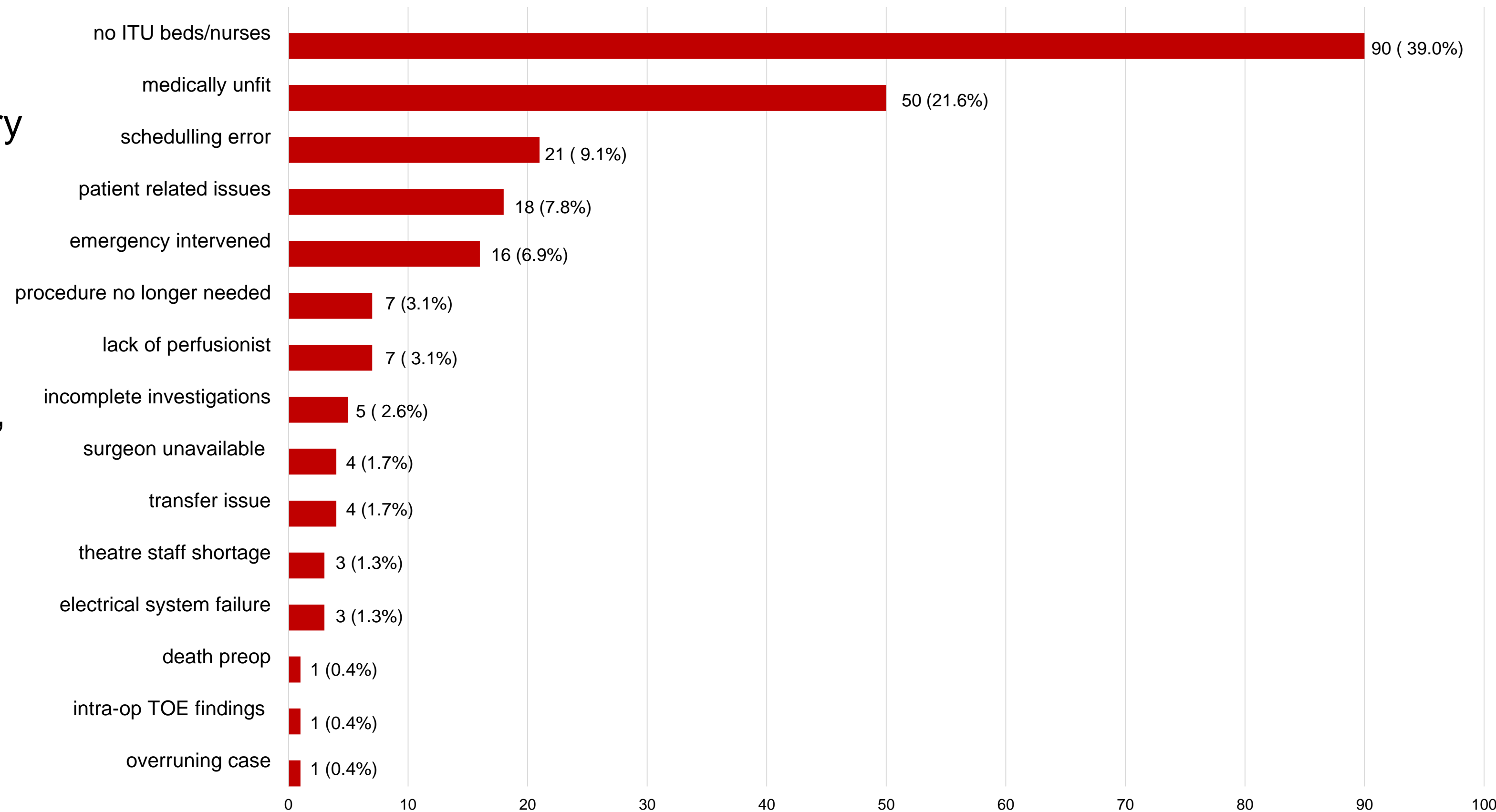
# Methods

- **Prospective review of all same-day elective and urgent inpatient cardiac surgeries**
  - 21<sup>st</sup> August – 30<sup>th</sup> March 2018
- Data sources: theatre register, printed theatre lists, PACS, Dendrite
- Data collected on all patients
  - Patient characteristics, procedure, outcomes
- Cancelled patients:
  - Reasons for, timing of cancellation, and outcomes
- Patients divided into 2 groups: **Cancelled (C)** and **Non-Cancelled (NC)**

# Results

- 1388 patients were scheduled for cardiac surgery
  - 981 (70.7%) were elective, 407 (29.3%) urgent
- Patient characteristics
  - the only significant difference between C and NC was **MI status** (C=82/204 (40.2%), NC = 336/1121 (30.0%)) (**p =0.004**)
- Overall, **16.6%** were cancelled on the day of surgery
  - 143 (14.6%) of the electives
  - 88 (21.6%) of the urgent (**p= 0.001**)
- Overall in hospital mortality: **41/1388 (3.0%)**
  - C n = 8/231 (3.5%)
  - NC n=33/1157 (2.9%) (p= 0.62)

## Reasons for cancellation



# Results

- **Timing of cancellation**

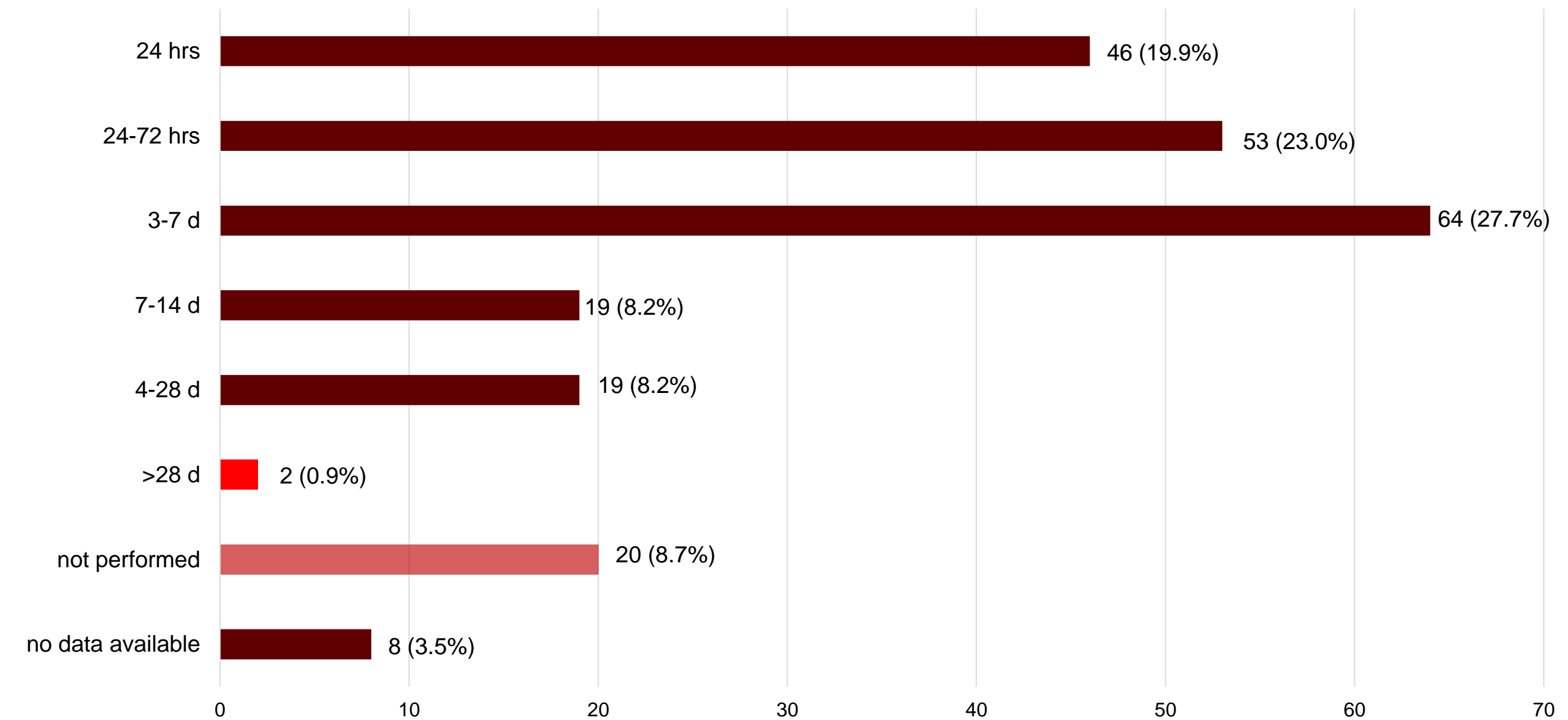
- Pre-operative for 222 (96.1%)
- Intraoperative for 3 (1.3%) patients
- Anaesthetic room for 2 (0.9%)

- 61/231 (26.4%) of cancelled procedures were undertaken by a different surgeon

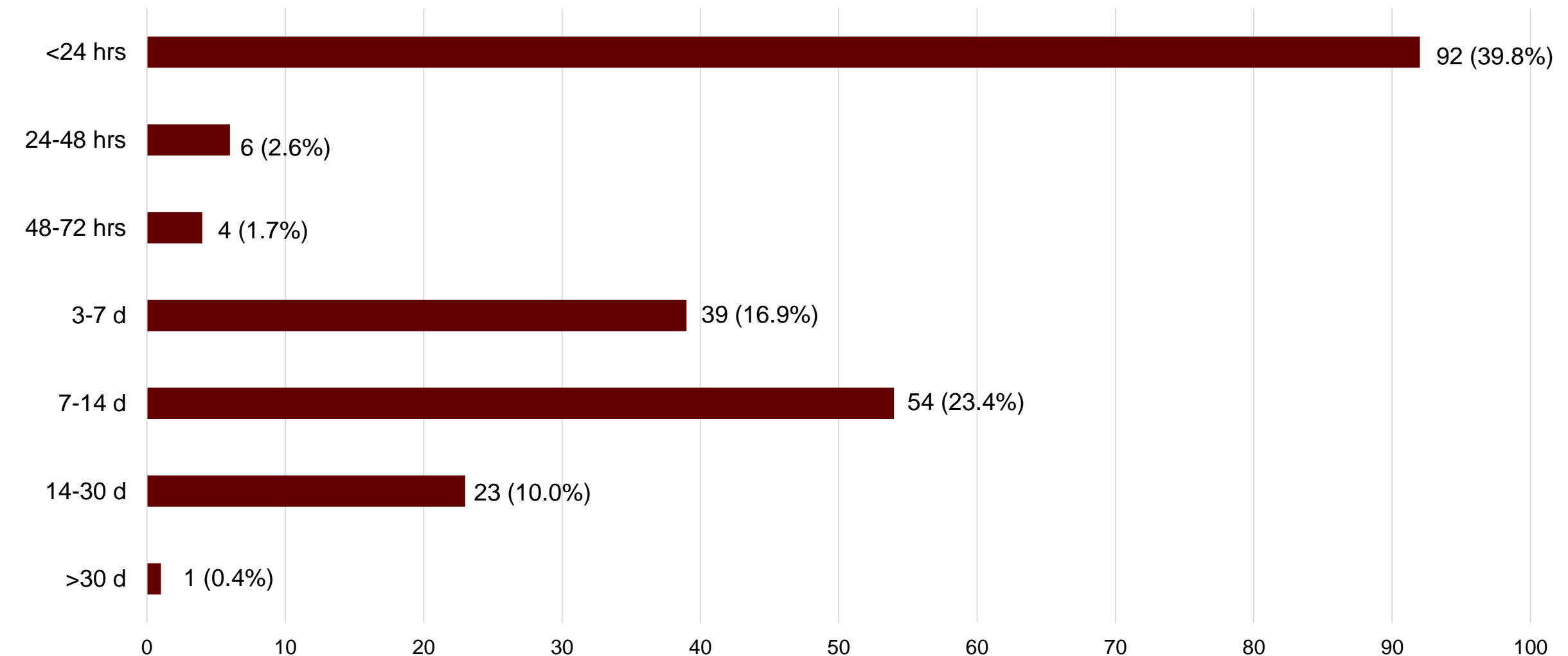
- **19/231 (8.23%) patients were cancelled twice**
  - **Out of these 15/19 (78.9%) were operated on by a different surgeon**

- In-hospital transfer cancellations significantly higher if scheduled for surgery <24hrs from admission (25% vs 13.6%) **p=0.00001**

Time from cancellation to operation



Hospital stay post cancellation



# Summary

- Our cancellation rate of **16.6%** is **above average national rates of 7.5%**
  - Higher cancellation rates within urgent patient group compared to elective
- The most common reasons for cancellation were **no ITU beds/nurses (39.0%), patient medically unfit (21.6%) and scheduling errors (9.1%)**
- 46/223 (19.9%) of patients cancelled were operated within 24 hours
  - However, 40/223 (17.9%) were operated after 7 days from the cancellation
- 61/231 (26.4%) of cancelled procedures were undertaken by a different surgeon
- 20/231 (8.7%) of cancellations did not subsequently undergo surgery
- In-hospital transfer cancellations significantly higher if scheduled for surgery <24hrs from admission
  
- **Recommendations:** detailed pre-op workup, day of surgery admission, sending patient reminders, urgent referral system, surgery for transfer patients after 24h from admission
- Target potentially preventable reasons for cancellation eg. ITU staff shortage, lack of perfusionist, inadequate workup



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The Society  
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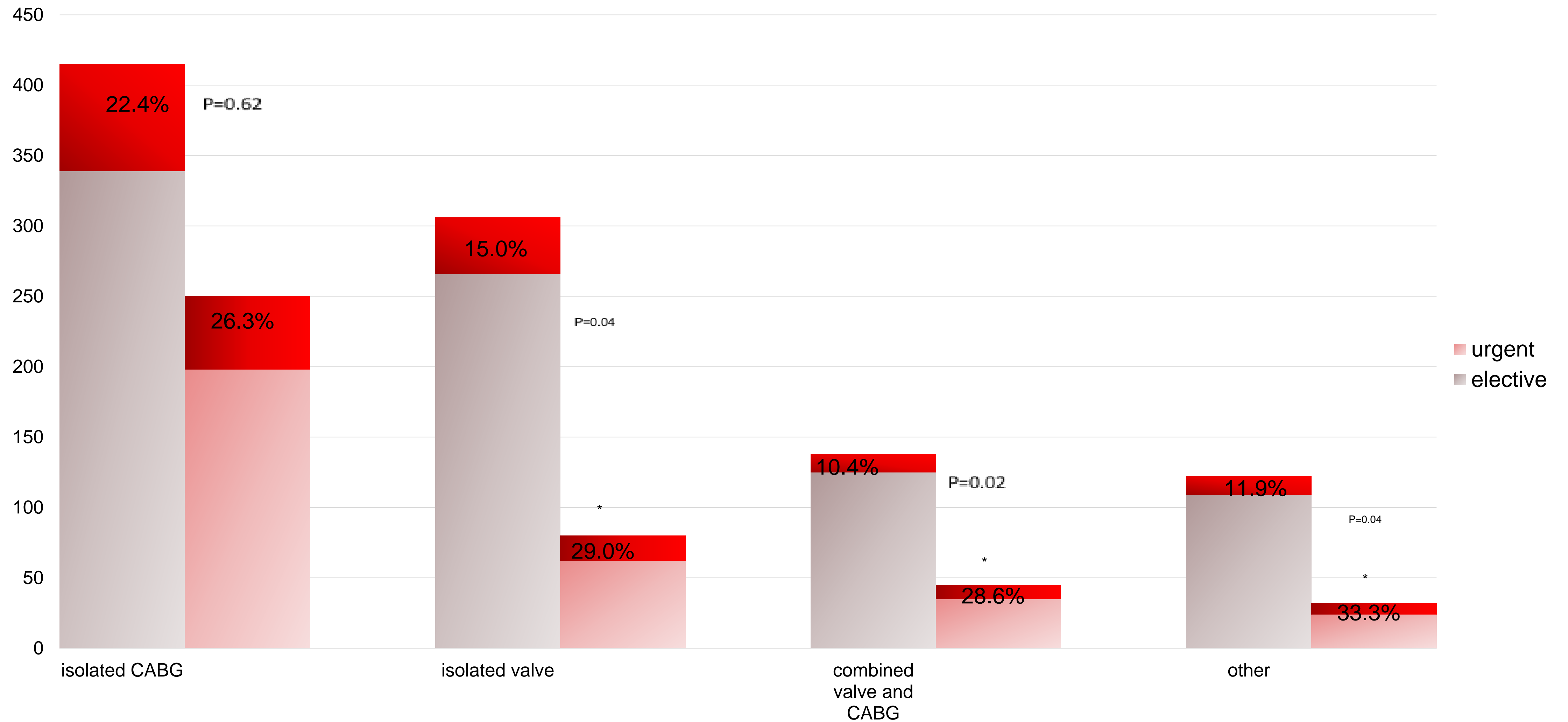
EACTS  
European Association for Cardio-Thoracic Surgery

THANK YOU



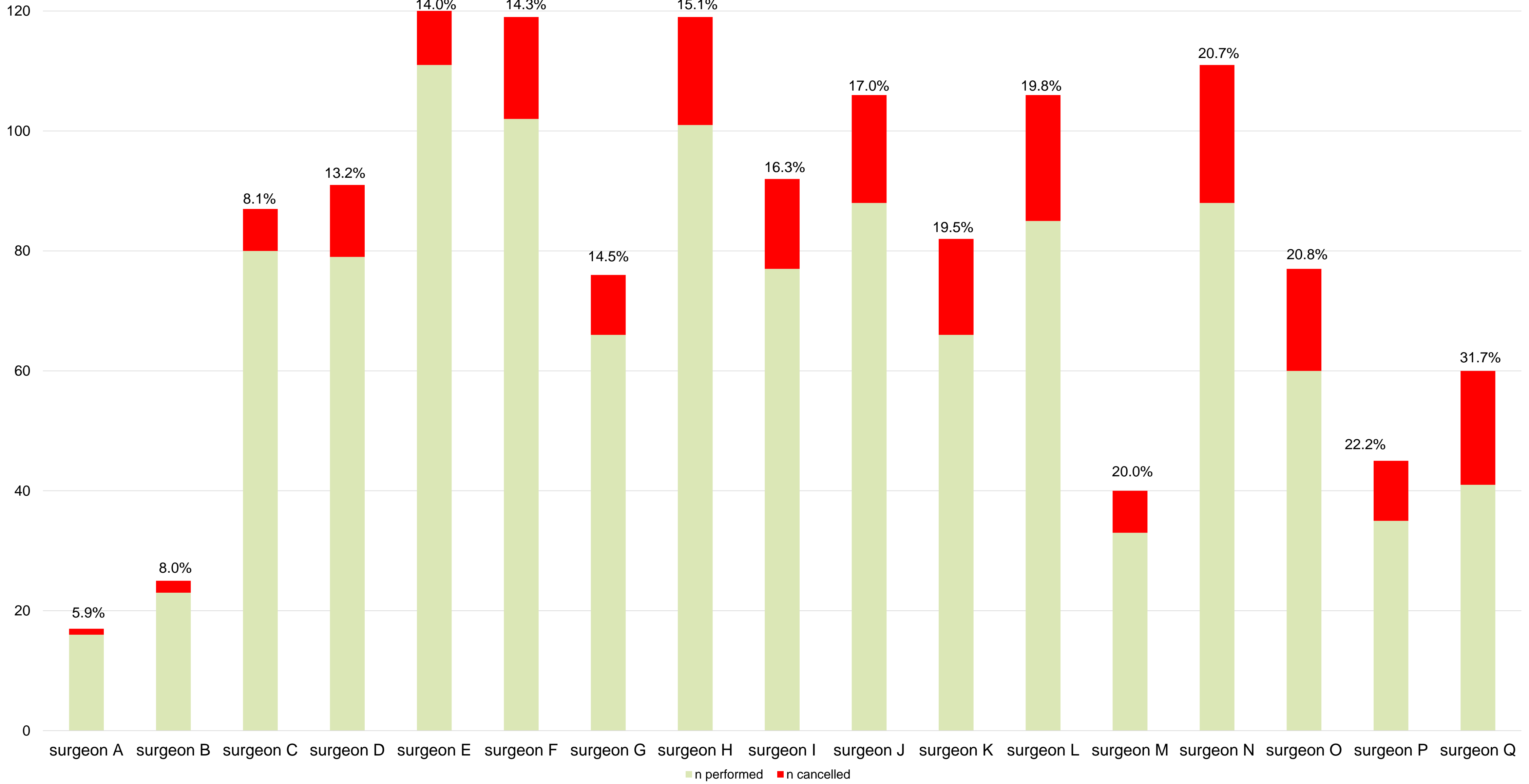


# Operative procedures

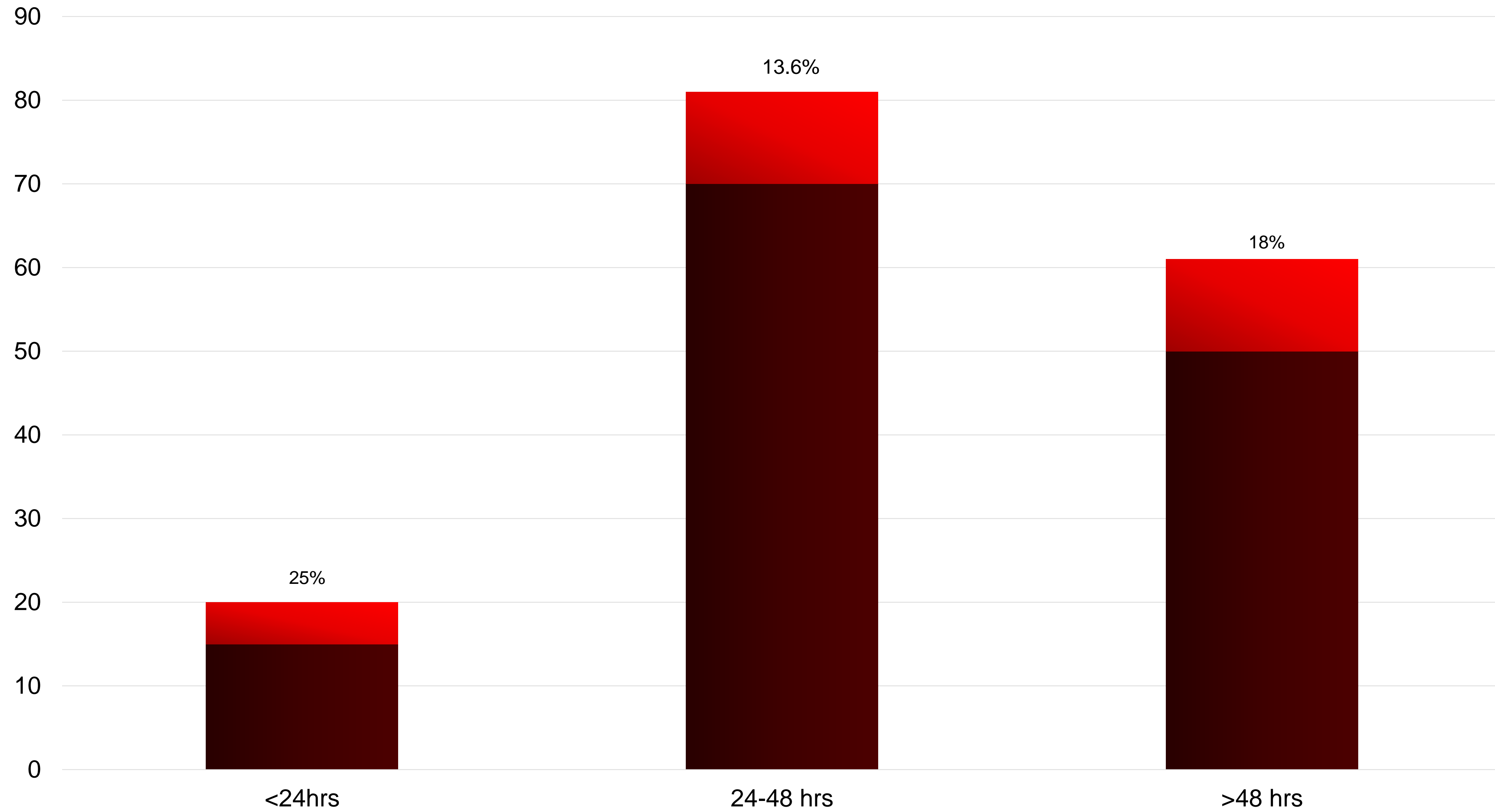




# Cancellations according to the Consutant Surgeon



# Cancellations within in-hospital transfers





# Cancellations: ITU beds/nurses - 39.0%

- 71/90 (78.9%) lack of ITU beds
- 19/90 (21.1%) lack of ITU staff

# Cancellations: Medically unfit – 21.6%

- loose stool
- gastric bleed
- Haematuria
- hyponatraemia/hypokalaemia
- new angiography findings
- Respiratory failure
- pneumonia, allergic reaction to reoperative antibiotics
- Flu
- Rash
- leg ischaemia UTI
- Pyrexia
- cellulitis



# Cancellations: 'Scheduling error' - 9.1%

- 13/21 (61.9%) overrunning case
- 4/21 (19.0%) operating room overbooked
- 3/21 (14.3%) late start to the operation
- 1/21 (4.8%) IT scheduling error

# Cancellations: Patient related issues – 7.8%

- 5/18 (27.8%) DNA
- 4/18 (22.2%) warfarin not stopped
- 3/18 (16.7%) treatment refusal
- 3/18 (16.7%) self-cancellation
- 1/18 (5.6%) late Jehovah cancellation
- 1/18 (5.6%) private treatment chosen
- 1/18 (5.6%) incorrect consent form signed



# Recommendations

- Ring – fenced beds
- Continual assessment of bed availability
- Better planning
- Detailed pre-op workup (checklist)
- Day of surgery admission
- Calling/texting patients before the surgery
- Urgent referral system (standardised referral form)
  - Separate coordinator to deal with urgent cases
- Try to reschedule the surgery within 24 hrs (affects patient satisfaction)
- Surgery planned for transfer patients after 24hrs from admission

# Steps towards preventing cancellations

- Unavoidable reasons for cancellation:
  - ITU bed numbers
  - Intervening emergency case
  - Patient seeking private treatment



# Potentially preventable reasons for cancellation 71/231 (30.7%)

