

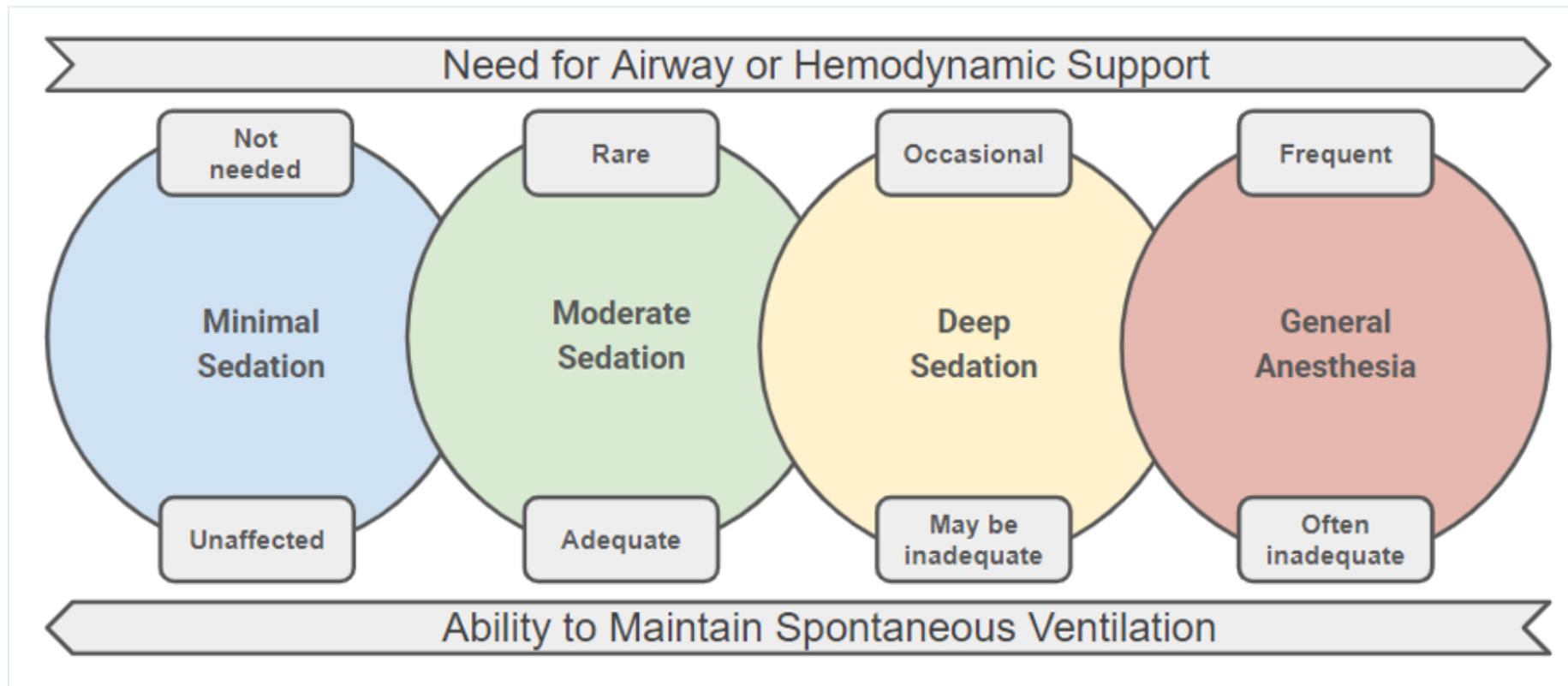
# Moderate (Conscious) Sedation in Abortion Care

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# Sedation Continuum



# Medications

- Fentanyl (opioid IV)
- Midazolam (benzodiazepine IV)
  
- Nalbuphine (opioid IV/IM)
- Meperidine (opioid IM/SQ)
- Propofol (anaesthetic IV)



# Use in Abortion Care

## USA

- 38% 1<sup>st</sup> trimester aspirations under IV moderate sedation + cervical block (CB)
- 88% midazolam + fentanyl

## Canada

- 46% providers only use IV moderate sedation + CB
- 27% most of the time

## Administration

- 31% operator-delivered
- 39% nurses, 12% nurse anaesthetists
- 11% anaesthetists

# Benefits

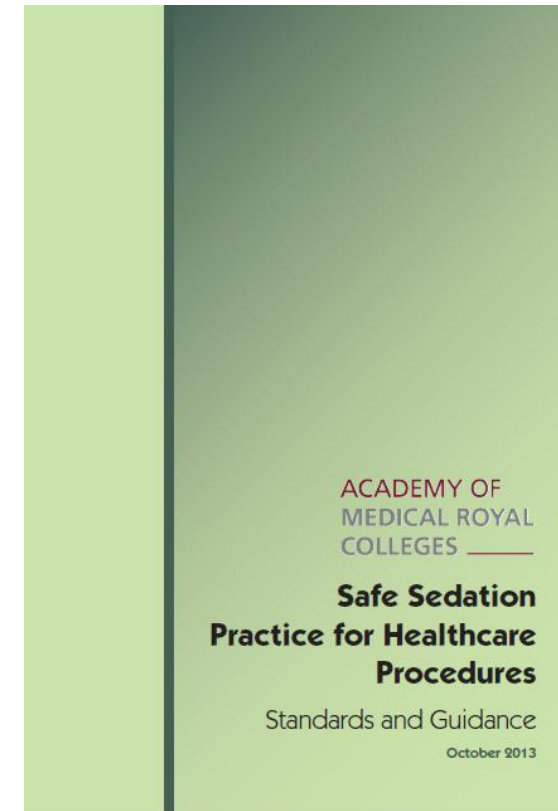
- Compared to local anaesthetic
  - Reduced procedural pain and anxiety
  - Increased satisfaction
- Compared to general anaesthetic
  - Lower risk
  - No need to fast
  - Quicker recovery
  - Fewer staff
  - Can be provided in a treatment room

## Use in Abortion Care in UK

- Hampered by guidance focused propofol to reach target state
- Propofol has a narrow margin of safety; patients can easily slip into unconsciousness and lose control of airway → anaesthetist
- Reports of high morbidity and mortality with sedation in endoscopy → standards

# New Guidance, New Possibilities

- AoMRC guidance provides clear parameters for moderate (conscious) sedation and training
- Includes non-propofol models deliverable without an anaesthetist
- DH guidance archived



## 2015 Launch at BPAS

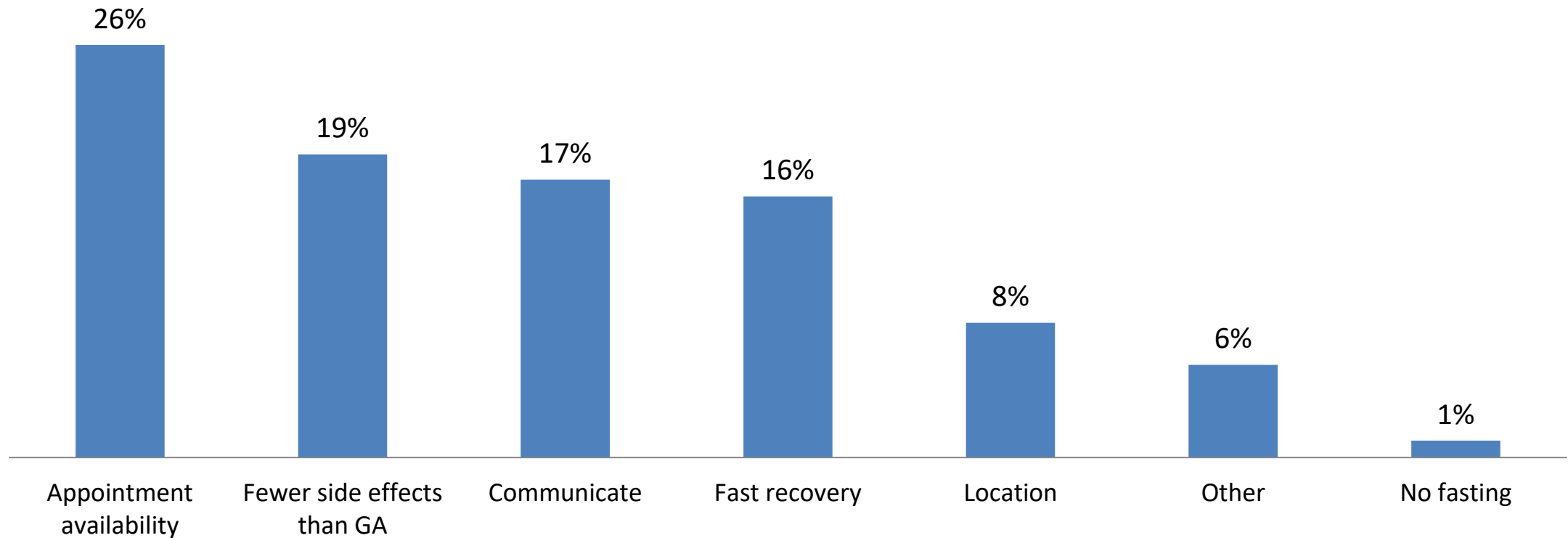
- Launched for vacuum aspiration to 12+0
  - With experience, extended to 13+6 and in some cases 14+ weeks
- 2 clinic teams and 5 surgeons trained
- 490 cases completed from Jan-Dec 2015
- No complications related to conscious sedation



## Service Evaluation: Sept-Dec 2015

- 191 of 251 patients provided feedback (76%)
- Gestational age: mean 8 weeks (range 5-13 weeks)
- Indication: abortion (n=187), ERPC/miscarriage (n=4)
- Average age 27 years (range 16-46)

# Reasons for Choosing CS

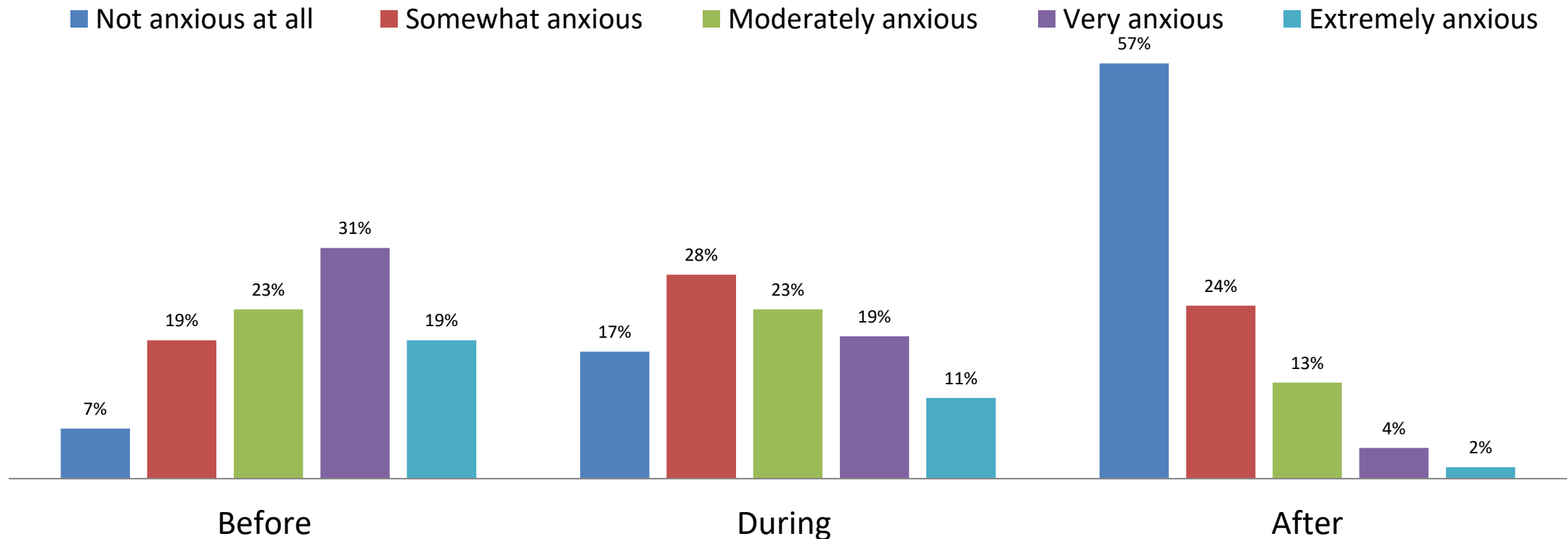


## Organising an Escort

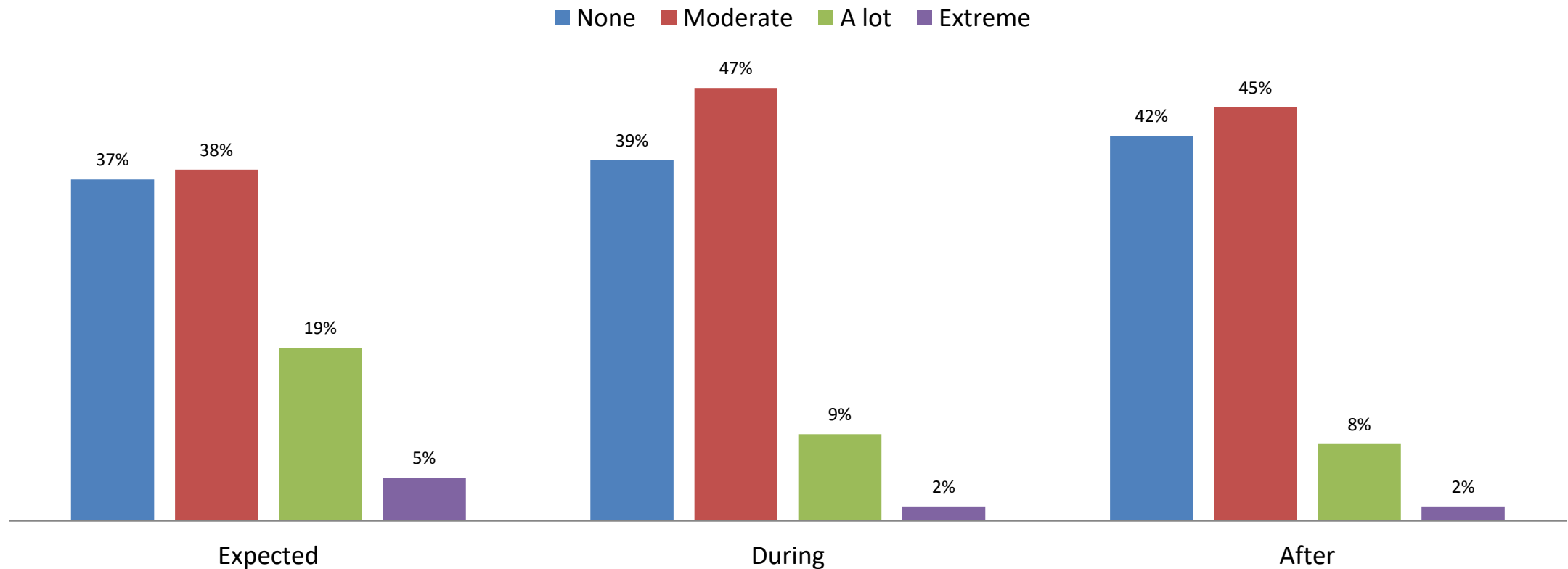
- Escorts required to attend, stay, take home, care for overnight
- 93% (174) found it easy to organise an escort
- 3% (6) partly easy
- 4% (7) did not find it easy
- All managed to organise an escort

4 non-respondents

# Anxiety: Before, During, After



# Pain: Expected, During, After



## Was CS the right choice?

90% (172) strongly agreed or agreed

- Felt in control, relaxed, reassured, felt happy, short recovery time, less painful, suited personal needs

2% (4) disagreed or strongly disagreed

- No support person, very tearful, completely conscious, aware and in pain

3% (6) not sure

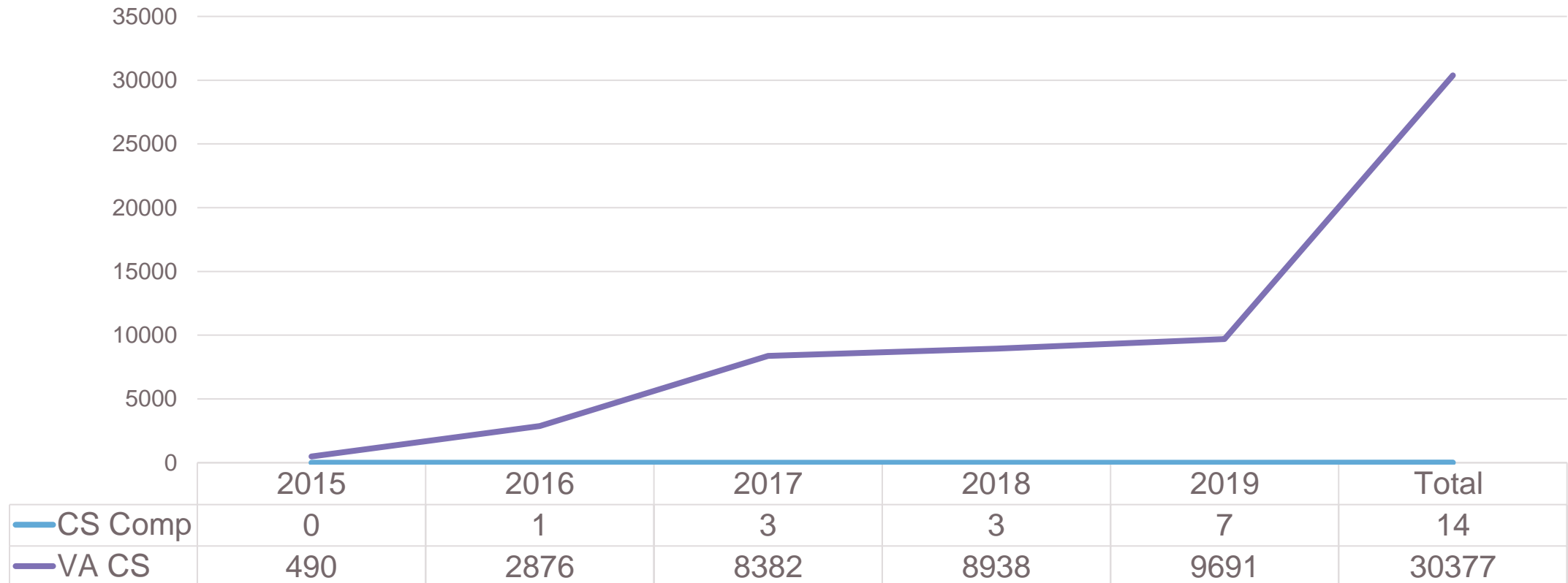
- would have preferred GA, scared

9 non-respondents

# Overall Satisfaction Rating

9.5 out of 10

# CS at BPAS 2015-2019





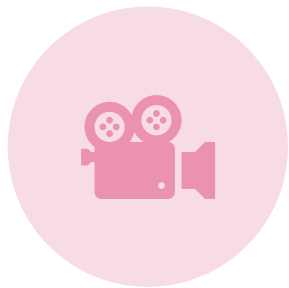
# Aids to Roll-Out



Guidance revised



Road shows to units



Videos of clients  
undergoing CS



Four-stage training  
programme aligned  
with AoMRC standards

# Aids to Roll-Out



Simulation training



Equipment and  
infrastructure



Clinic-buddying



Audit and incident  
monitoring

# Complications: 2015-2019

**Table 2** Moderate (conscious) sedation-related complications for vacuum aspirations performed at British Pregnancy Advisory Service, January 2015–December 2019 (n= 30 377)

Complication (n (%))	2015 (n=490)	2016 (n=2876)	2017 (n=8382)	2018 (n=8938)	2019 (n=9691)	Total (n=30 377)
Participating clinics (n)	2	17	23	24	24	24
Unable to complete procedure	0	0	1 (0.01)	2 (0.02)	3 (0.03)	6 (0.02)*
Drug reaction, adverse	0	0	0	1 (0.01)	1 (0.01)	2 (0.007)†
Pulmonary aspiration	0	0	0	0	0	0
Flumazenil administration	0	0	1 (0.01)	0	2 (0.02)	3 (0.01)‡
Naloxone administration	0	0	1 (0.01)	0	0	1 (0.003)‡
Sustained drop in oxygen saturation below 90%	0	0	0	0	0	0
Unplanned instrumentation of airway	0	0	0	0	0	0
Unplanned intervention by anaesthetist	0	0	0	0	0	0
Unplanned admission to hospital following sedation	0	1 (0.03)	0	0	1 (0.01)	2 (0.007)§

Overall rate: 0.05%

# CS at BPAS Today

- Primary mode of 'anaesthetic' vacuum aspiration to 13+6 weeks
  - Some clinics extend to 17+6 weeks
  - Feticide, osmotic dilator placement if needed
- IV fentanyl (100 mcg max) + midazolam (4mg max to 14 weeks, 6 mg max 14-18 weeks); can use each on its own
- (Para)cervical block and oral analgesia (800 mg ibuprofen)
- Three-person model (AoMRC)
  - Operator administers sedation
  - Dedicated nurse/midwife monitors patient
  - Additional assistant to surgeon

# Summary

Operator-delivered IV moderate (conscious) sedation is...

- Safe and acceptable alternative to general or local anaesthesia
- Can expand options for pain/anxiety management due to lower resource and infrastructure requirements

Successful service implementation aided by stakeholder engagement, local data, training aligned with national standards.

Thank You.

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