

NAP 5 FOR THE OBSTETRIC ANAESTHETIST

(and for anaesthetists who do obstetrics)

THE PERFECT STORM

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Declaration of interest

Member of steering group for NAP5 and lead for obstetrics.

Learning objectives

To be aware of the findings of NAP5 in relation to current obstetric anaesthetic practice

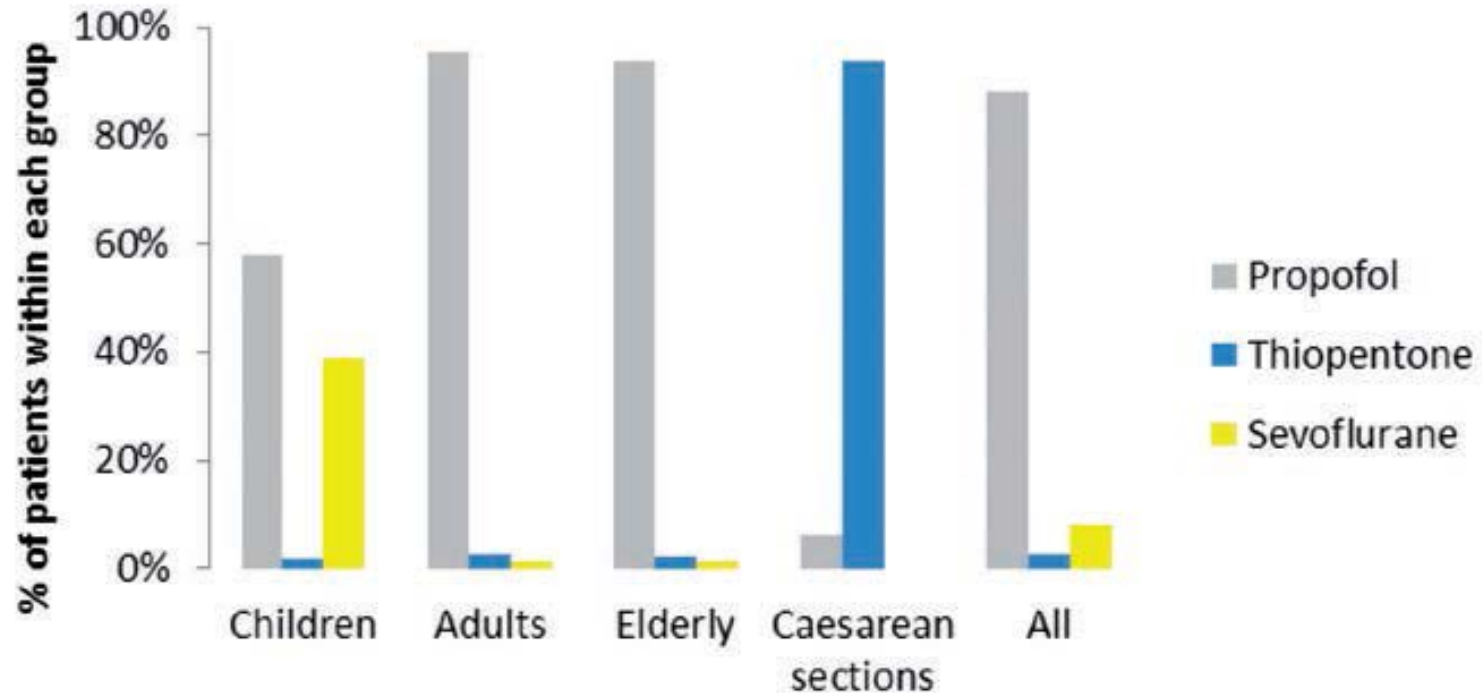
To understand the implications for use and practice of general anaesthesia in obstetrics

To consider the proposed research in relation to the findings

The Activity Survey showed us
that Obstetric general anaesthesia is different....

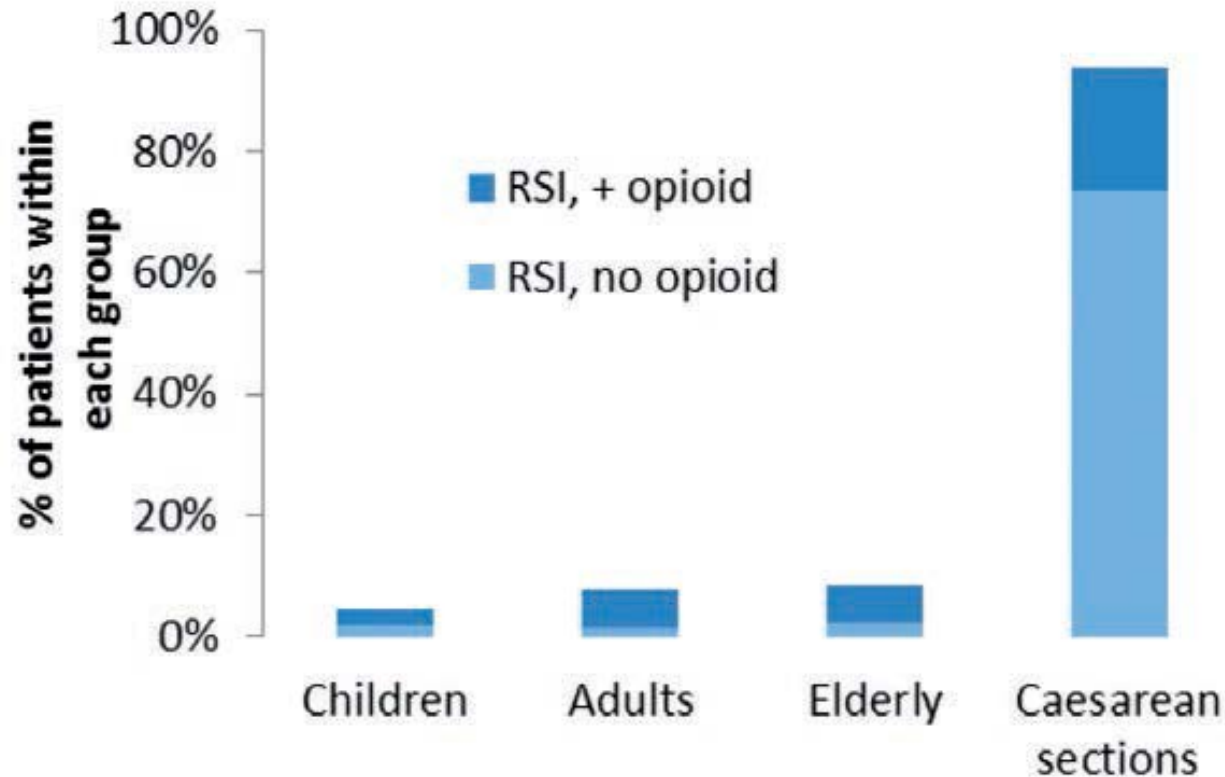
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- Induction agent



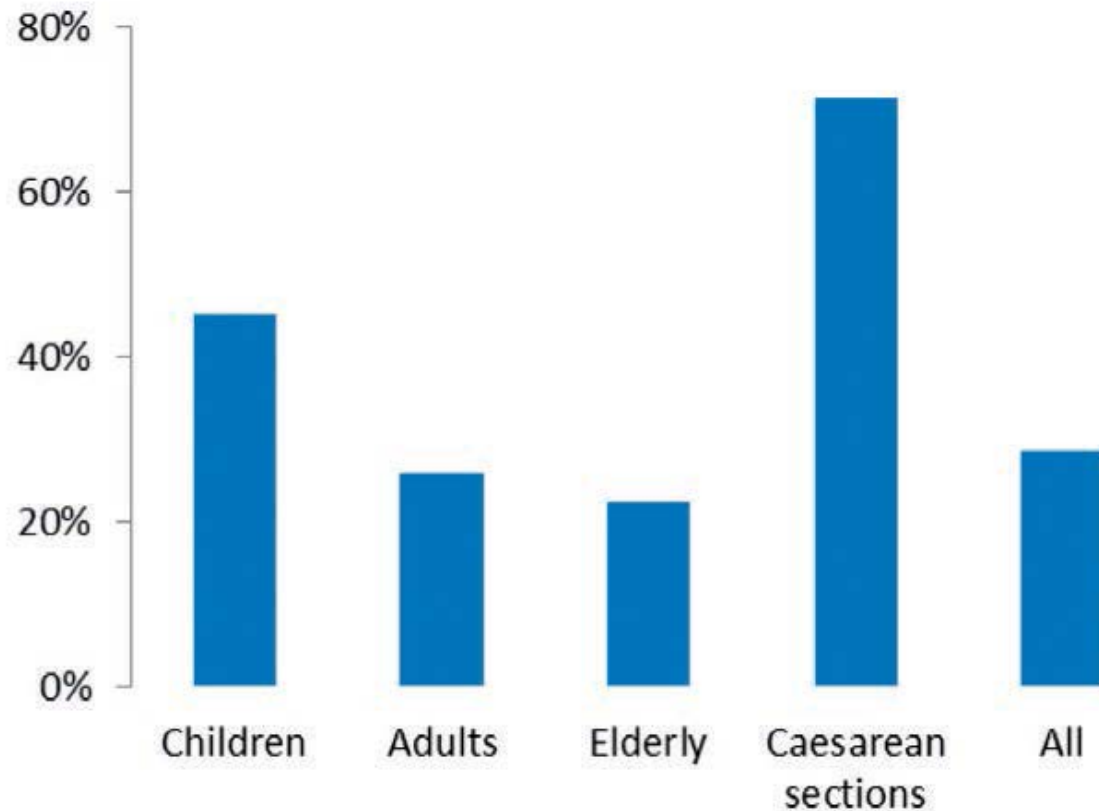
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- Rapid sequence induction



The Activity Survey showed us *that Obstetric general anaesthesia is different....*

- Nitrous oxide



Incidence of awareness from NAP5

All reports submitted	1 : 6000
All reports accepted	1 : 12000
Certain, probable & possible reports	1 : 19600
With NMB	1 : 8200
Without NMB	1: 135900
Cardiothoracic	1 : 8600
Caesarean section	1 : 670

Risk factors for awareness:

obstetric anaesthesia – the ‘perfect storm’

Patient Factors

Female gender
Age (young adults)
Obesity
Difficult airway

Organizational Factors

**Non-consultant
grade**
Out of hours
Emergency

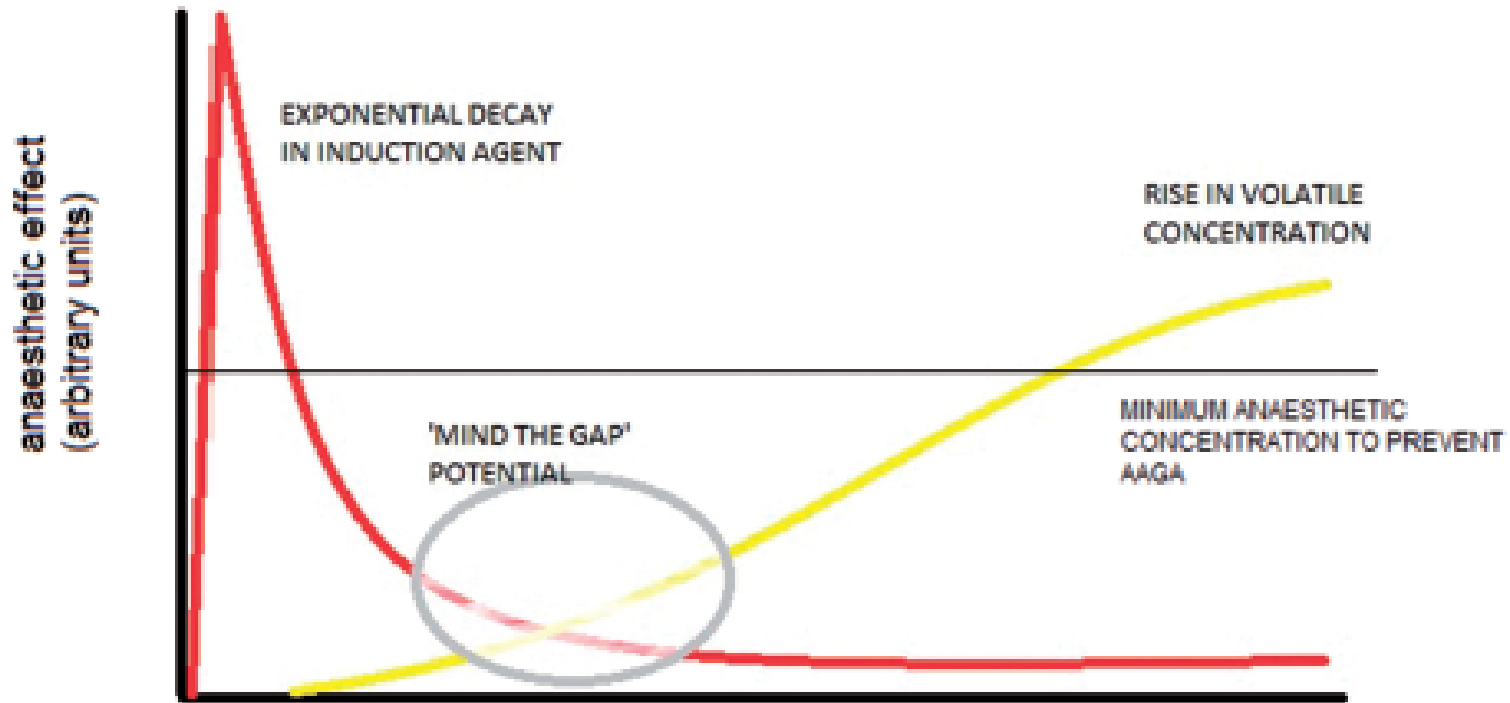
Anaesthetic Factors

Thiopentone
RSI
NMB

Characteristics of obstetric cases

variable	number	%
Non elective	11	79
Out of hours [01.00- 08.00]	9	64
Airway difficulty	5	36
Obesity	4	29
Rapid sequence induction	13	92
Low dose of thiopentone	7	50
N ₂ O not used	6	43
End-tidal monitoring not used	4	29

The obstetric gap



Induction agent: thiopentone v propofol/ dose

Airway difficulty

MAC used

Increased cardiac output

Indication for general anaesthesia



Recommendations

- Discuss AAGA as part of informed consent
- Changes to GA technique
- Plan for maintenance of anaesthesia during airway difficulties
- Failed regional is a risk factor for other complications
- Caution with antibiotic syringes



Changes in GA technique

- Higher dose of thiopentone 5mg/kg
- Higher concentration of inhalational agent (with uterotonics)
- Early use of N2O and opioids



Thiopentone versus propofol



Advantage of thiopentone

- Used for many years
- Relatively cardiostable
- Longer duration

Disadvantages of thiopentone

- Risk of antibiotic syringe swap
- Requires pre-mixing
- More expensive
- In short supply



Advantages of propofol

- More familiar to current generation (evidence of over & underdosing)
- No evidence of adverse fetal effects
- Can give repeated doses
- Avoids disadvantages of thiopentone

Lucas Anaesthesia 2015; 70: 375

Research Implications

- Optimum drug (and dose) for induction
- Optimum timing & dose of opioids
- Safe minimum FiO₂ (especially with fetal compromise)
- Use of uterotonics to counteract tocolytic effect of volatiles
- True incidence of awareness and reporting rates

Future challenges?



NAP5 provides further evidence to avoid GA in obstetric practice

Is it time to stop using a 50 year old technique based on fear of the fetus & uterine atony?

The lack of seniority of anaesthetist in cases of AAGA give further weight to the recommendation for expanded consultant presence of delivery suites