

# Chronic Pain after Caesarean Section

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# Potential risk factors of chronic post-surgical pain



Psychosocial



Surgical technique



Anaesthetic technique

Surgery



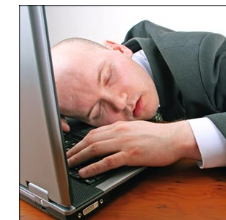
Post-op pain



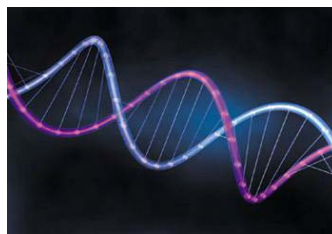
Long-term pain



Acute-postop pain



Sleep



Genetics



Hormones

# OxPPOPS Caesarean Protocol

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Longitudinal observational clinical trial

**Primary outcome**

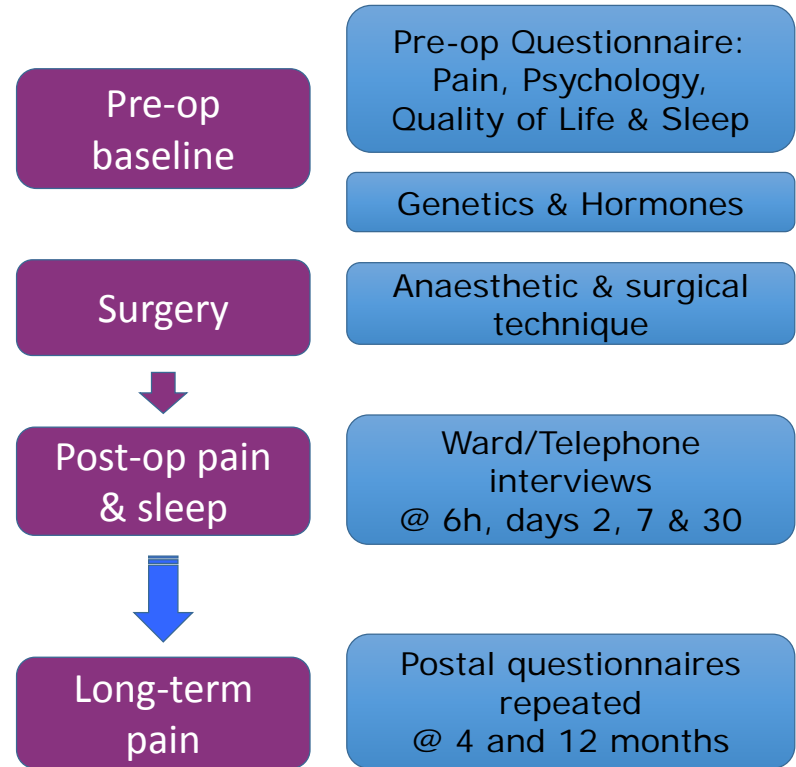
Incidence of chronic post-surgical pain after elective caesarean section

**Secondary outcome**

Predictive factors for its development

**Ultimate aim**

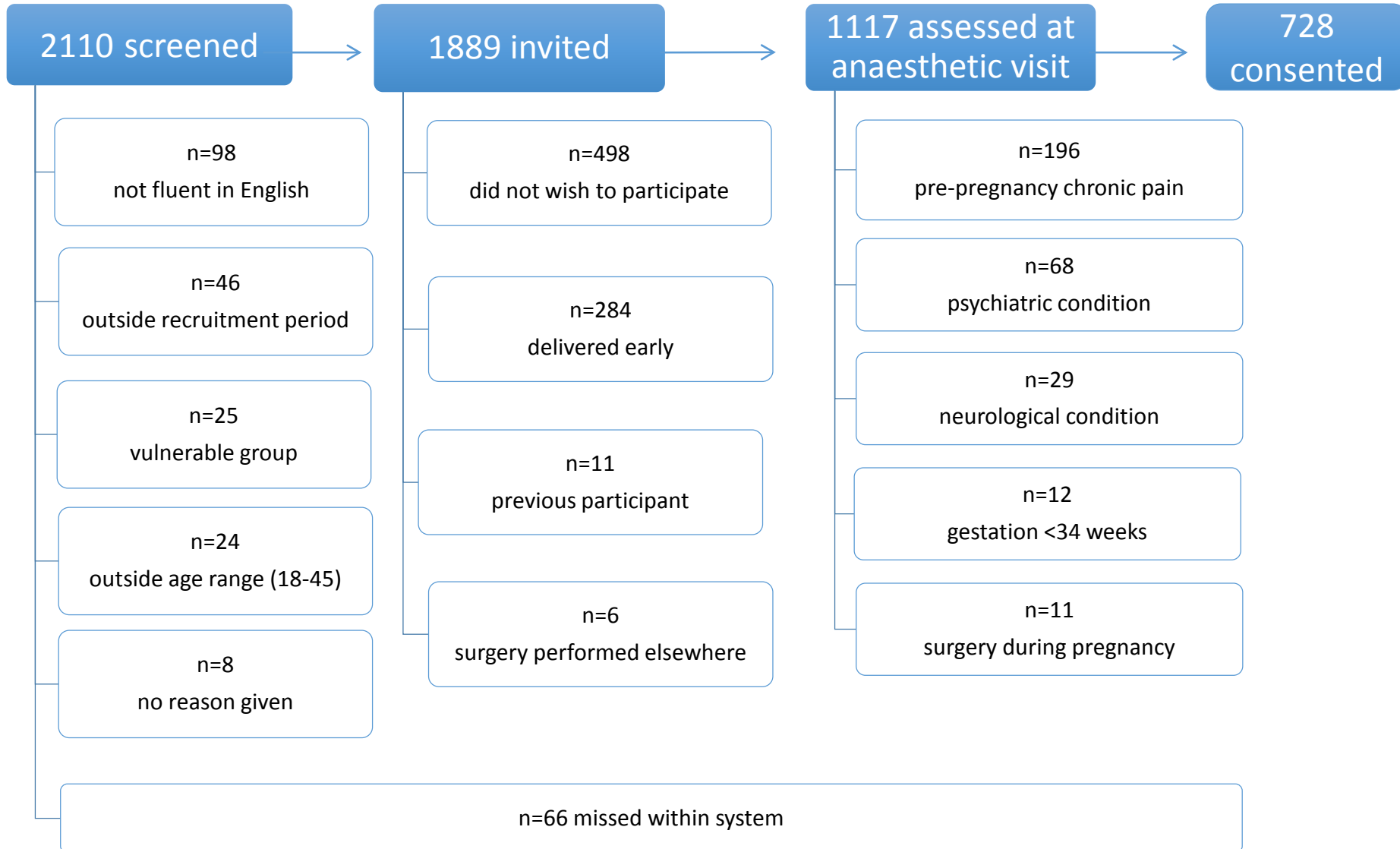
Develop interventions for 'at-risk' patients to prevent conversion



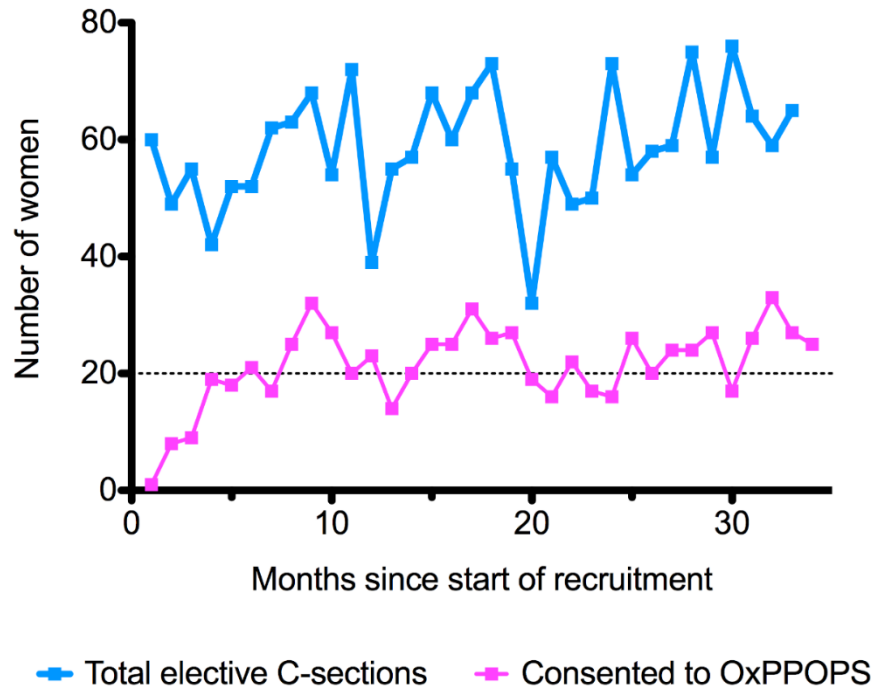
1. Primary screen  
by clinic staff

2. Patient invited to  
participate

3. Inclusion assessed by project  
team at anaesthetic visit



# Recruitment and retention

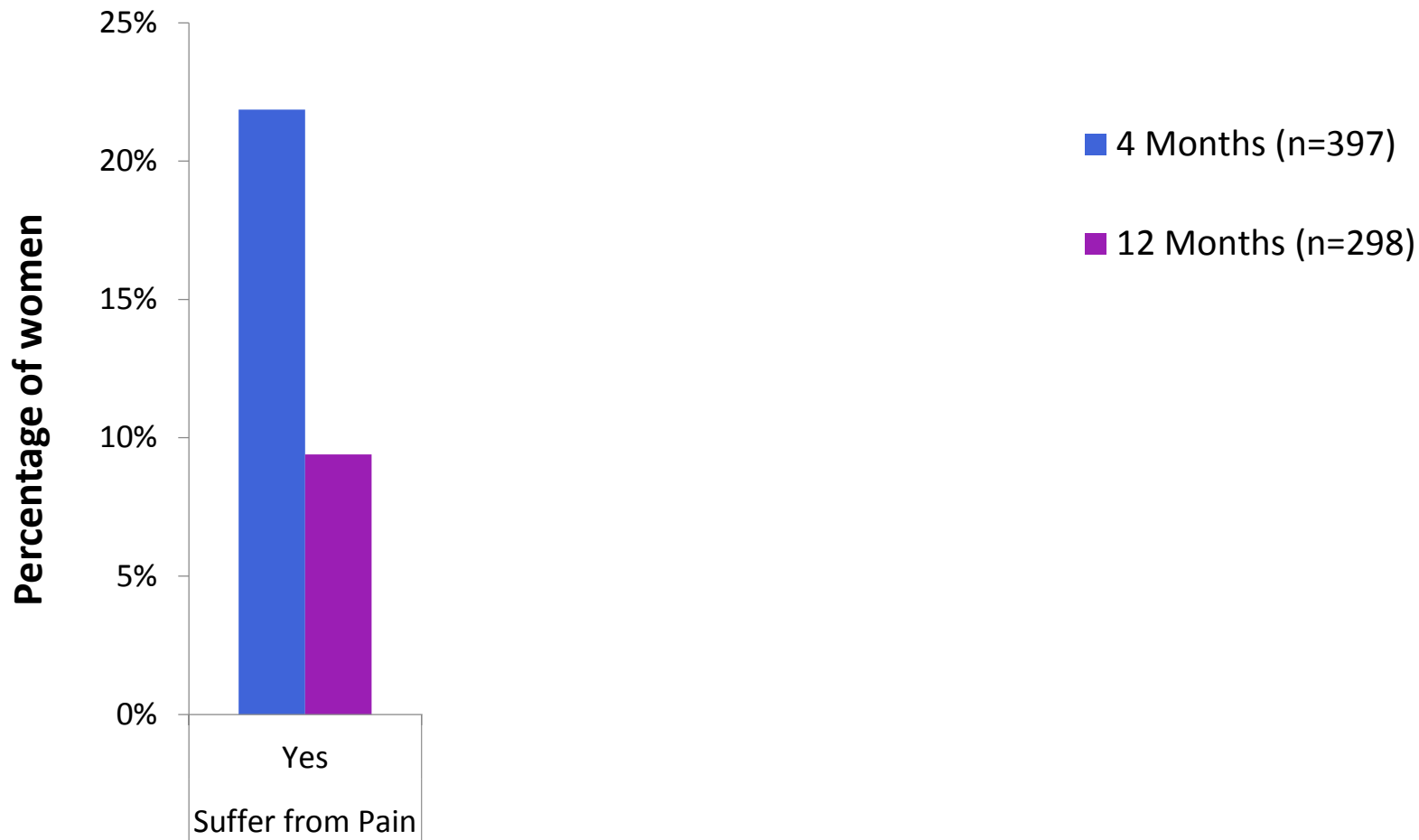


- 35% of all elective caesarean sections performed recruited onto study
- Excellent data collection and retention rates
- Long term follow-up completes end May 2015

<b>Pre-op baseline</b>	Pre-op questionnaire & genetics/hormones	93%
<b>Day of surgery</b>	Anaesthetic/surgical	94%
	6h	84%
<b>Acute post-op</b>	Day 2	87%
	Day 7	79%
	Day 30	67%
<b>Long term post-op</b>	4/12	73%
	12/12	71%

# Pain after Caesarean Section

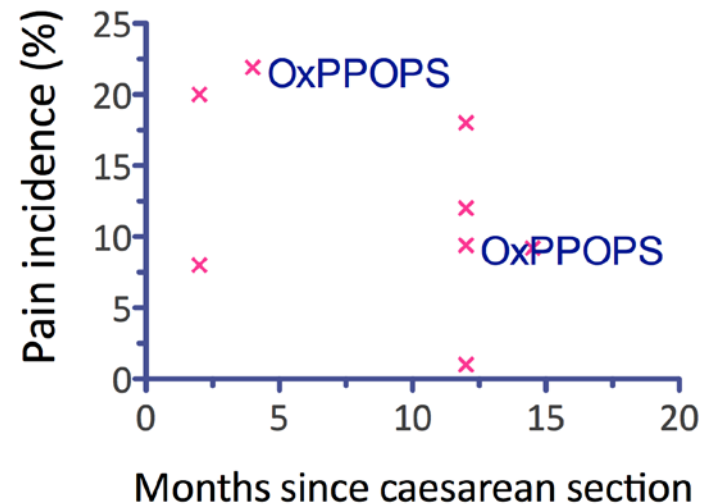
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# Discussion

- Interim analysis of OxPPOPS data
- 22% of women suffer from pain due to their caesarean section at 4 months
- Incidence of pain reduces to 9% at 1 year

## Incidence of CPSP after caesarean section



*Eisenach et al., Anesthesiol. 2013*

*Liu et al., Anaes Intens Care, 2013*

*Kainu et al., Int J Obstet Anesth 2010*

*Sng et al., Anaes Intens Care, 2009*

*Nikolajsen et al., Acta Anaes Scand 2004*

# Discussion

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- In the majority of cases, the pain at 1 year is:
  - located in the abdomen
  - mild in intensity
  - more intense on movement
  - not likely to be neuropathic in nature
- Further analysis of predictive factors is ongoing to identify 'at-risk' patients pre-operatively



# Acknowledgements

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## Research Team

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Dr Jane Quinlan

Dr Nicola Beale

Dr Robin Russell

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Obstetric  
Anaesthetists'  
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**NHS**

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