

# The use of cordotomy in mesothelioma-related pain: A systematic review

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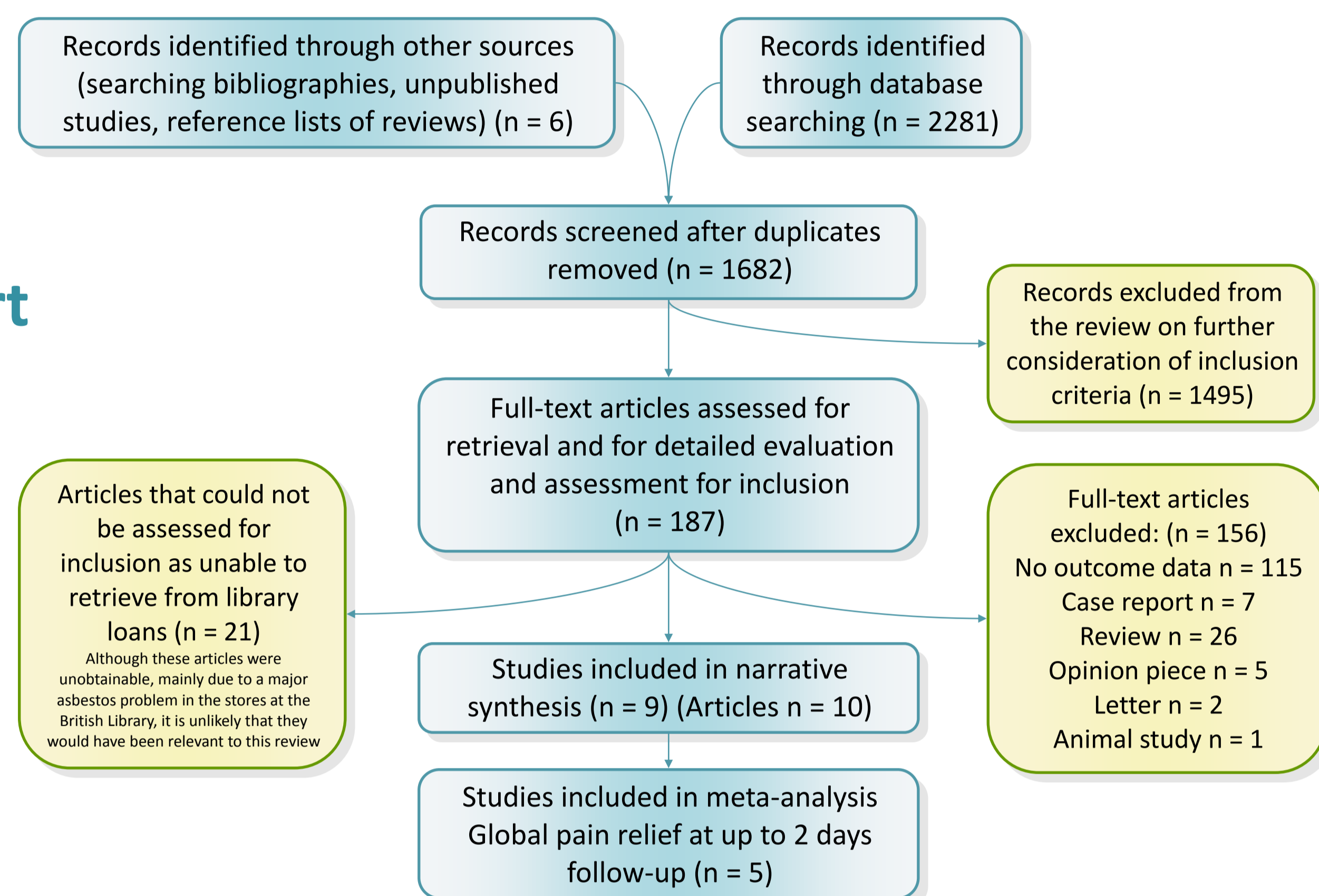
## Background

- Part of wider research project: *The role of cordotomy in the management of mesothelioma-related pain in the United Kingdom (The INPIC Pilot study)*
- NCRI SuPaC Lung Cancer Research Grant approved June 2008

## Methods

- Eleven databases were searched from inception to January 2011
- Two reviewers independently undertook study selection, quality assessment and data extraction into pre-defined forms
- Results were combined in a narrative synthesis; a meta-analysis was performed where data could be pooled

### PRISMA flow chart



## Aims

- To synthesise the current evidence on the use of cordotomy in mesothelioma-related pain, with specific reference to safety (side effect profile) and effectiveness (in relieving pain)
- To use data extraction items to inform the registry dataset

Author	Study Design
Antrobus 2011	Retrospective case series (audit)
N=15 / Mesothelioma n=3 / United Kingdom	
Crul et al 2005	Retrospective case series
N = 43 / Mesothelioma n = 4 / Netherlands	
Jackson et al 1999	Retrospective case series
Mesothelioma n =53 / United Kingdom	
Kanpolat et al 2002	Prospective case series
Mesothelioma n =19 / Turkey	
Nicosia et al 1983	Unclear. Italian study. Translation does not clarify
N = 20 / Mesothelioma n = 3 / Italy	
Price et al 2003	Prospective case series
N = 37 / Mesothelioma n =32 / United Kingdom	
Raslan 2005	Prospective case series
N = 8 / Mesothelioma n =5 / Egypt	
Raslan 2008	Prospective case series
N = 51 / Mesothelioma n =24 / Egypt	
Sharma et al 2011	Prospective case series
N = 35 / Mesothelioma n =17 / United Kingdom	

- Nine studies met inclusion criteria, all case series
- All in secondary care setting
- Follow up times ranged from 24 hours post-procedure to 6 months or until death

## Results

### Effectiveness

<b>Global measures</b>	Cordotomy was effective for most patients (also see meta-analysis)
<b>Pain intensity</b>	Excellent results in most patients, in some the effect diminished somewhat over time
<b>Opioid use</b>	Marked reduction in opioid use in most patients
<b>Analgesic level</b>	Block was maintained for most patients throughout the follow up period
<b>Other</b>	Further pain blocks or repeat cordotomy were needed in a small percentage of patients
<b>Performance status</b>	Scores increased post-procedure
<b>Total sleeping hours</b>	Increased post-procedure
<b>Patient satisfaction</b>	Most patients were satisfied with the procedure

## Is cordotomy a safe and effective treatment for mesothelioma-related pain?

**Yes, it is effective**

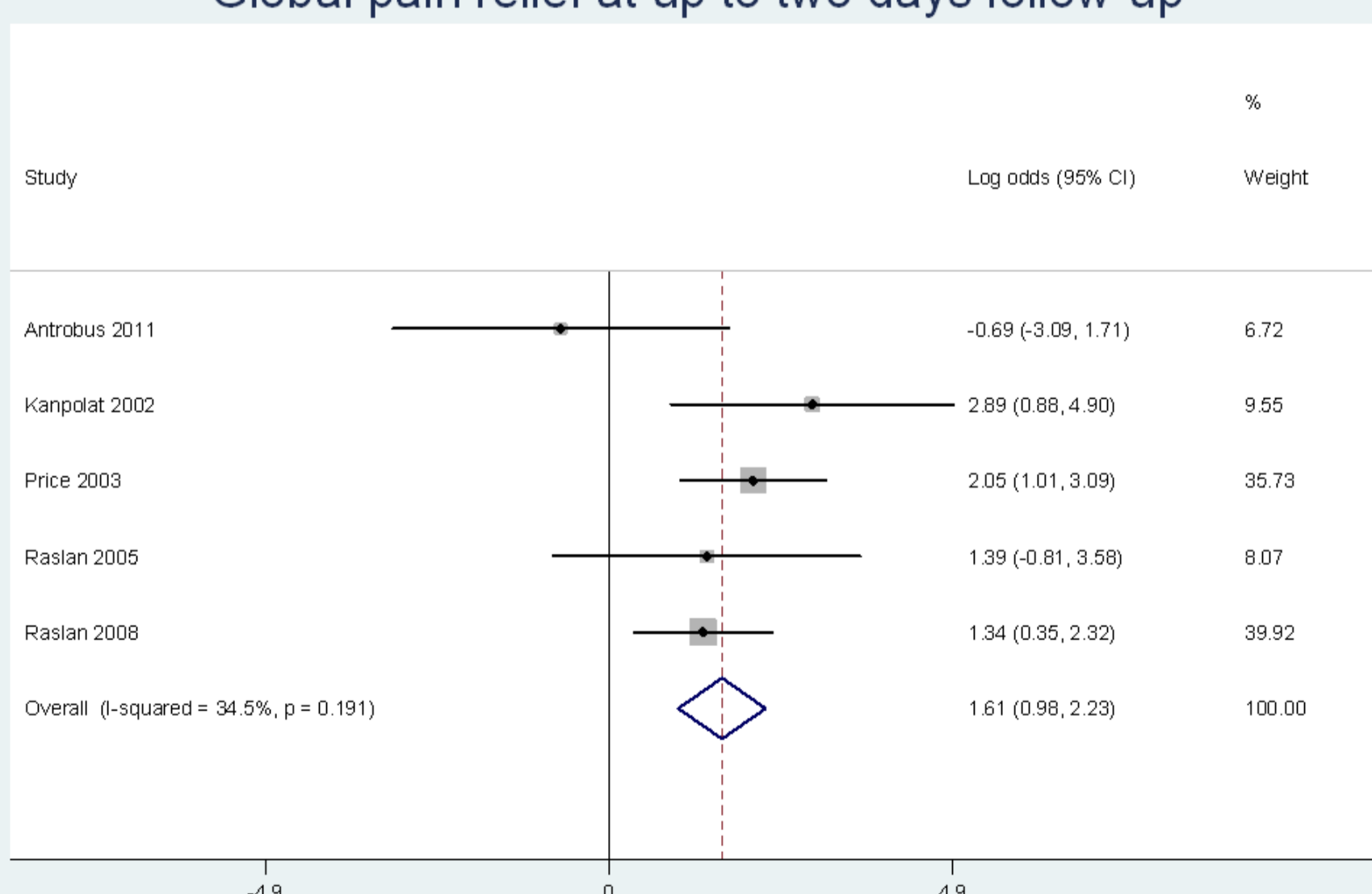
**Yes, it is safe**



### Adverse effects

- Life-threatening complications were rare
- Minor side effects were common (mirror pain, temporary weakness, numbness or dysaesthesia)

Global pain relief at up to two days follow-up



### Meta-analysis

- Global pain relief measure (either complete or effective) at up to two days follow up
- Fixed effect model (Mantel-Haenszel)

The pooled estimate suggests that cordotomy is effective for relieving pain due to mesothelioma at up to two days post-procedure

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