

THE EFFECTIVENESS OF ADRENERGIC ALPHA ANTAGONISTS ON REDUCING RE-CATHETERISATION RATES IN ADULTS WITH URINARY CATHETERS: A SYSTEMATIC REVIEW AND META-ANALYSIS

Yi-Ting Chen¹, Kai-Cheng Chang¹, Hui-Yu Chen¹.

¹ Department of Pharmacy, Linkou Chang Gung Memorial Hospital, Taoyuan city, Taiwan.

ATC code : G04- UROLOGICALS

Background and importance

- Hospitalized patients often require indwelling urinary catheters due to urinary retention, surgery, or other reasons, and catheterisation may increase the risk of catheter-associated urinary tract infection (CAUTI) and death.
- Alpha-blockers can reduce muscle tension and relieve dysuria in patients with benign prostatic hyperplasia (BPH). However, there is considerable uncertainty about whether alpha-blockers aid in catheter removal.

Materials and methods

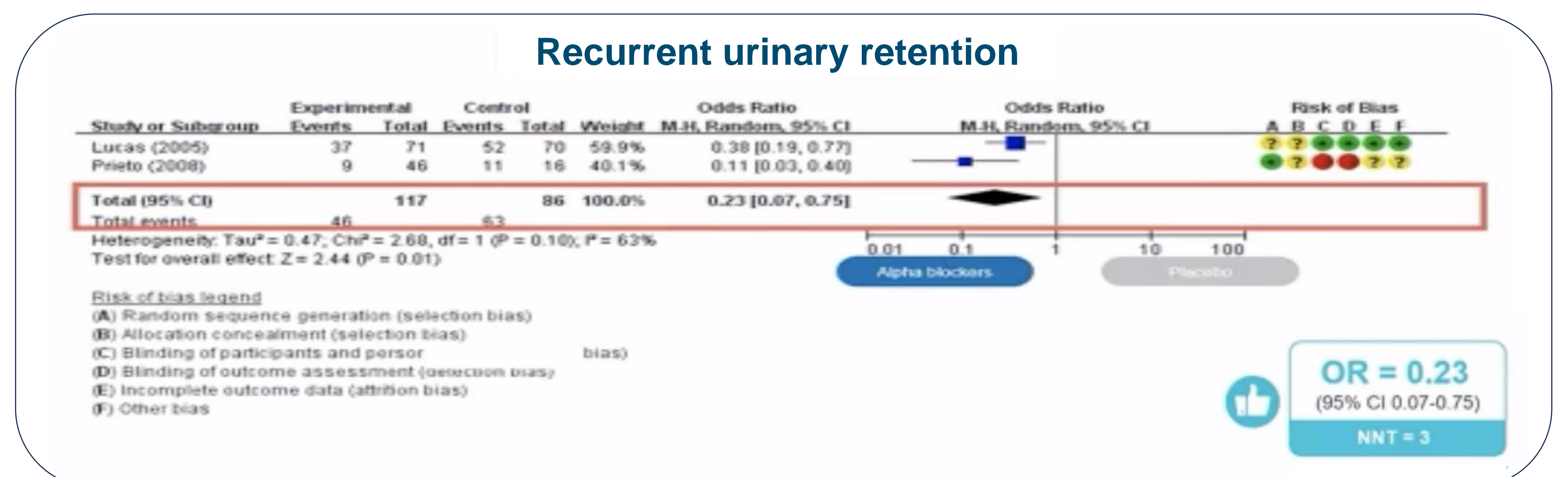
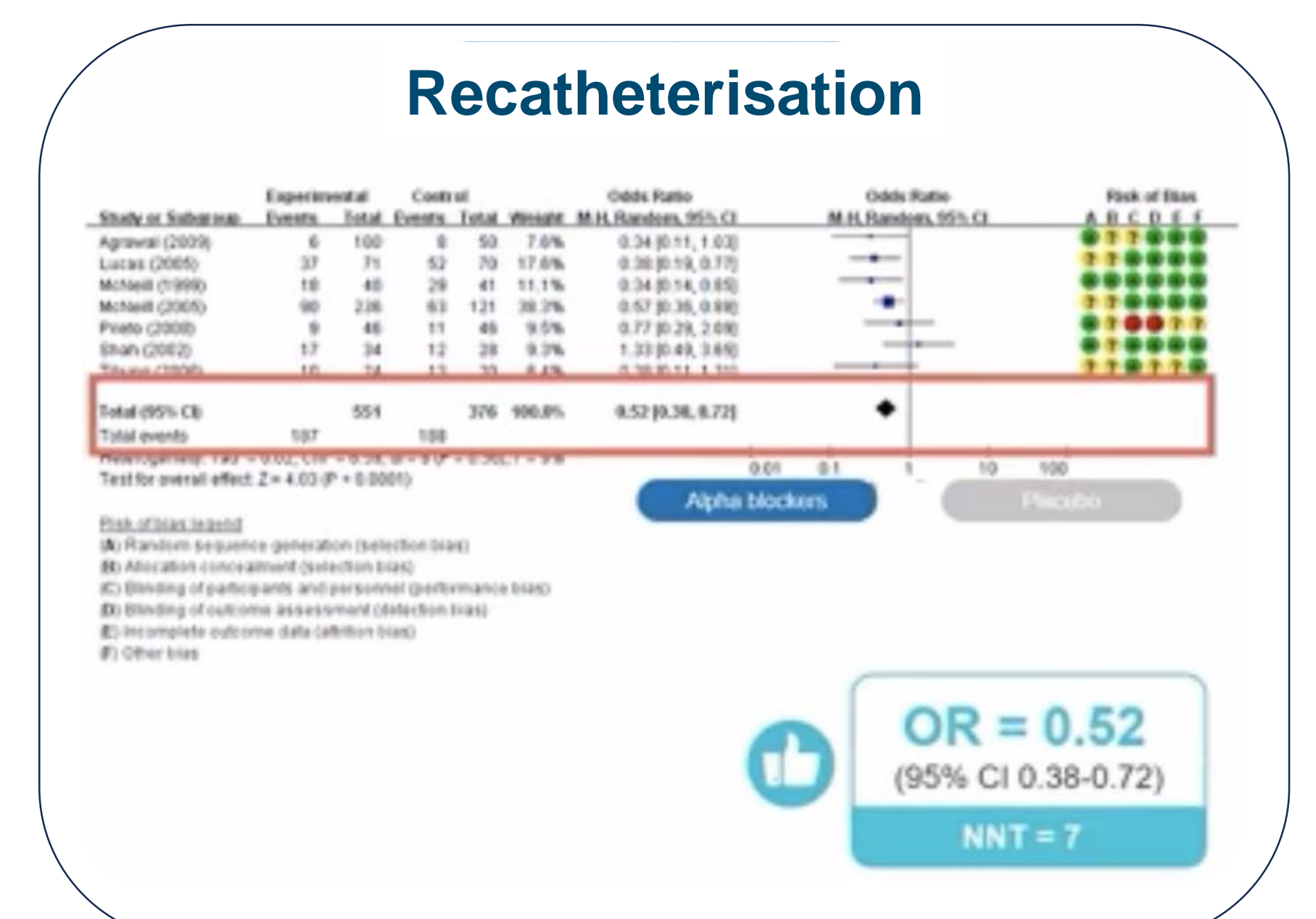
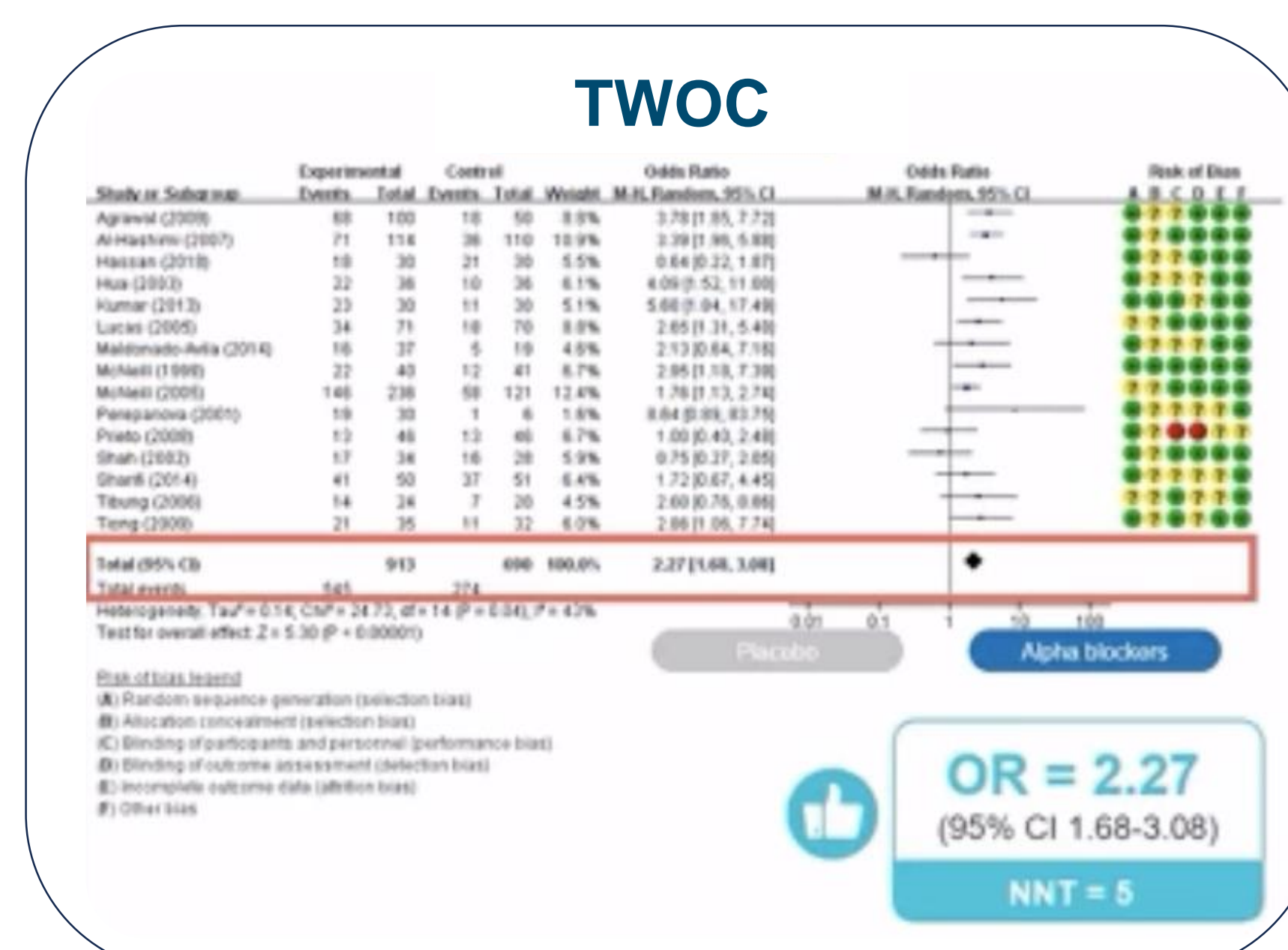
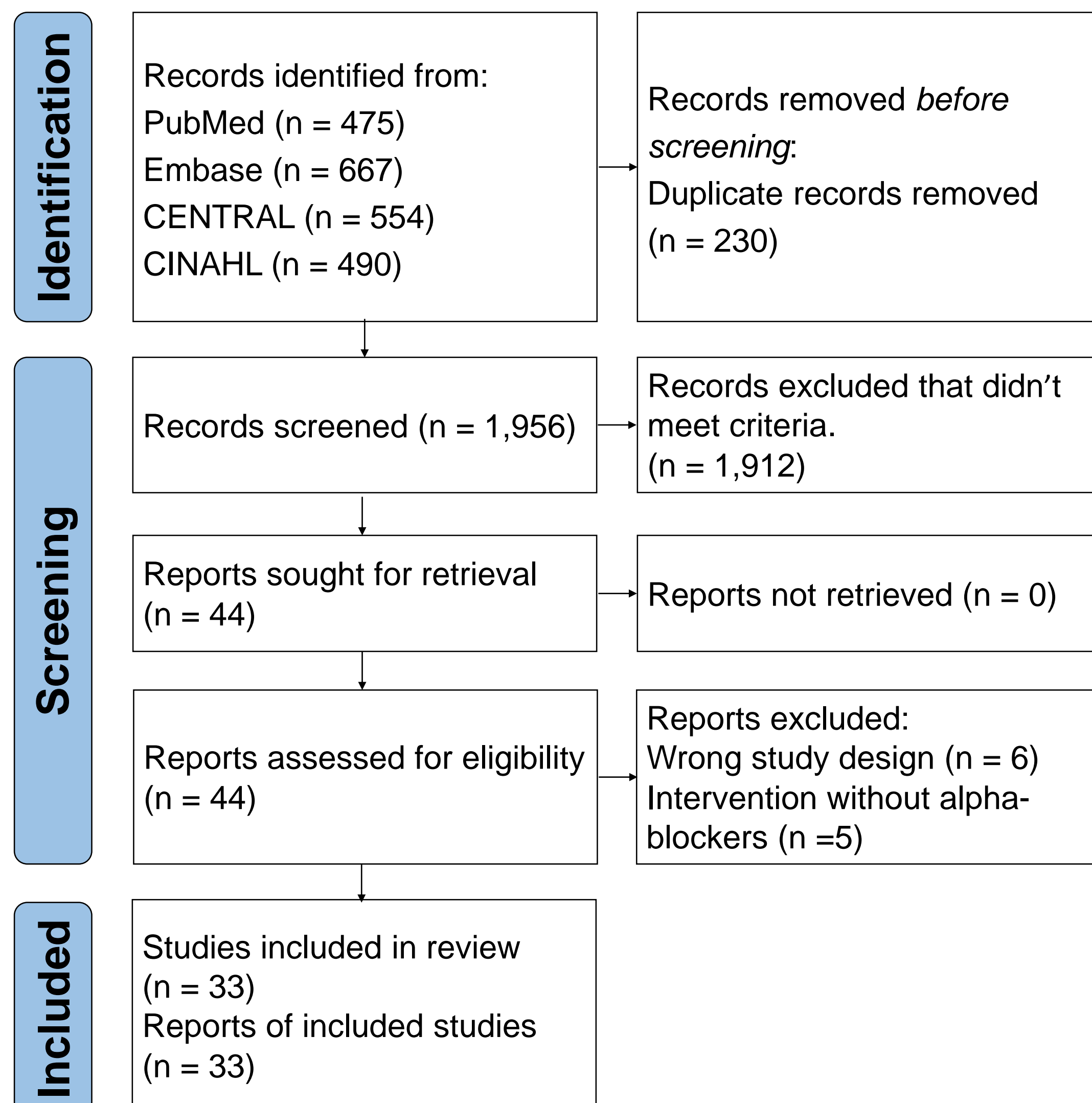
- Studies design: Systematic review of RCTs
- Database: PubMed, Embase, Cochrane
- Duration: 1983 to July 2023
- No searching restrictions
- Two independent reviewers
- A random-effects meta-analysis was applied to pool event rates with 95% confidence intervals (CIs).
- Approach to make clinical recommendations: GRADE Evidence to Decision (EtD) frameworks.

Aim and objectives

- To assess the effectiveness of alpha-blockers on successful resumption of micturition after removal of a short-term urinary catheter in adults.

Results

PRISMA flow diagram



Conclusion and relevance

- We strongly recommend patients with history of BPH or suspected with BPH to accept prophylactic alpha-blockers before catheter removal.
- Surgical patients are moderately recommended using alpha-blockers to prevent POUR.
- As for other patients, we must evaluate many factors such as age, gender, medical history, risk of adverse effects, previous urinary catheter experience and indications of indwelling urinary catheters before alpha-blockers application.

