Surgical management of periprosthetic femoral fractures following total hip arthroplasty with a cemented stem

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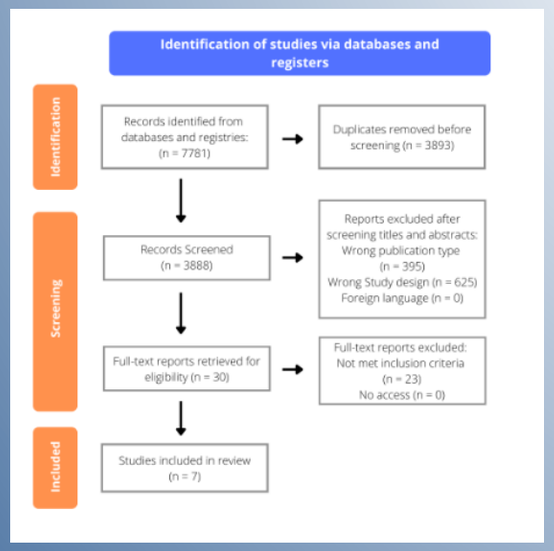
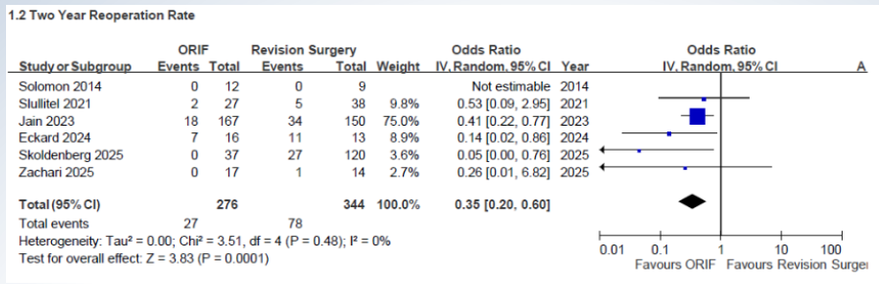
Aim and Objectives:

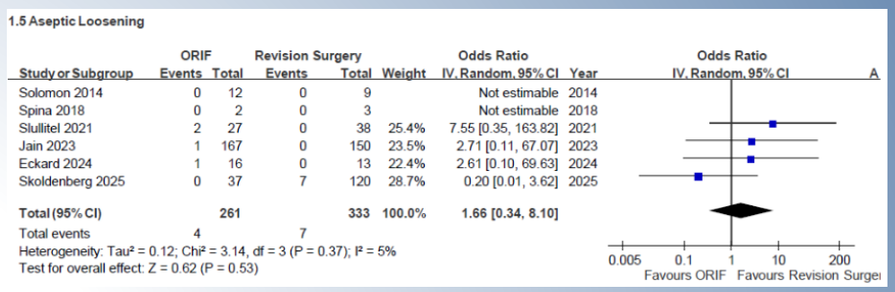
1) To evaluate the optimal management for periprosthetic femoral fracture
2) To analyse clinical outcomes to see which treatment is superior

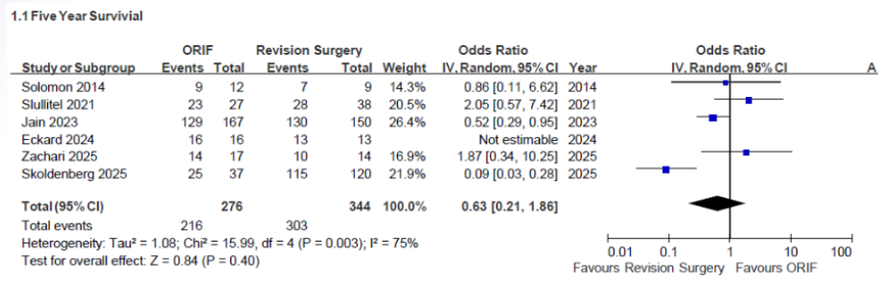
Method:

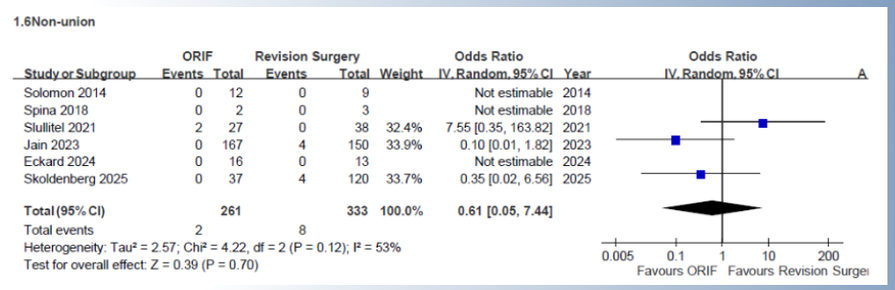
PRISMA Compliant SRMA, registered with PROSPERO (CRD420251061905). systematically searched MEDLINE, Embase, CENTRAL, Scopus, and ClinicalTrials.gov from inception to May 2025, for studies comparing ORIF with revision arthroplasty in adults with Vancouver type A, B, or C PFFs following cemented THA.

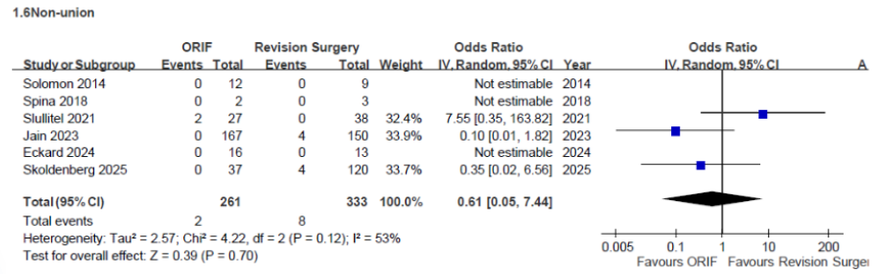


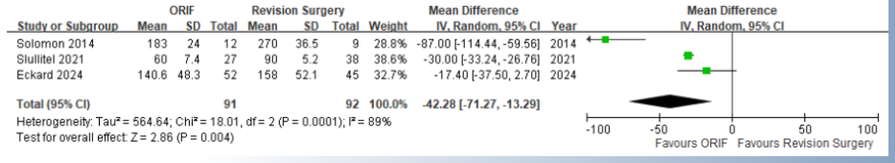












Result:

1. Seven studies included involving 625 patients (278 ORIF, 347 revision) met eligibility criteria, mean age = 82.9.
2. Two-year reoperation was significantly lower with ORIF (OR 0.35, 95% CI 0.20–0.60).
3. No significant differences were observed in five-year implant survival (OR 0.63, 95% CI 0.21–1.86) or one-year mortality (OR 2.04, 95% CI 0.59–7.05).
4. Postoperative infection, aseptic loosening, and non-union rates were also similar between groups.
5. Risk of bias was moderate overall.

Conclusion: ORIF was associated with a significantly lower reoperation rate compared with revision arthroplasty, without compromising implant survival or mortality.