

Appendix Table 2. Summary of Findings - Landmark Insertion Compared to Transillumination

Patient or population: pediatrics
Setting: Hospitalized pediatric patients
Intervention: Static ultrasound guided PIVC insertion
Comparison: Dynamic ultrasound guided PIVC insertion

| Outcomes | Anticipated absolute effects* (95% CI) | | Relative effect (95% CI) | № of participants (studies) | Certainty of the evidence (GRADE) | Comments |
|---------------------------------|--|---|----------------------------------|-----------------------------------|---|----------|
| | Risk with Dynamic ultrasound guided PIVC insertion | Risk with Static ultrasound guided PIVC insertion | | | | |
| First time insertion success | 867 per 1,000 | 598 per 1,000 (433 to 832) | RR 0.69 (0.50 to 0.96) | 60 (1 RCT) | ⊕○○○ VERY LOW a,b,c | |
| Overall insertion success | 900 per 1,000 | 630 per 1,000 (468 to 855) | RR 0.70 (0.52 to 0.95) | 60 (1 RCT) | ⊕○○○ VERY LOW ^{b,c} | |

*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk ratio

GRADE Working Group grades of evidence

High certainty: We are very confident that the true effect lies close to that of the estimate of the effect

Moderate certainty: We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different

Low certainty: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect

Very low certainty: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

Explanations

- a. Risk of bias due to allocation concealment
- b. Risk of bias due to outcome assessor
- c. Small sample size