Does evening removal of indwelling urinary catheters compared to morning removal reduce the rate of urinary retention in the acute hospital setting: A systematic review

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Conclusion

The evidence from this review and meta-analysis identified the benefit of evening IDC removal for discharge within 24 hours. However, these trials focused on urology and gynaecology populations which may not be generalisable to other populations. Further, adequately powered, high quality trials are required to confirm the effectiveness of IDC removal in the evening compared to morning for urinary retention, UTIs, patient discharge and comfort.

Methods

We searched multiple electronic databases (January 1982 to 29 March, 2019) including the Cochrane Central Register of Controlled Trials (CENTRAL), CINAHL and PubMed to identify randomised controlled trials (RCTs) evaluating urinary retention post-IDC removal. The search was limited to the English language and included search terms such as: indwelling urinary catheter; urinary catheterisation; removal; morning; afternoon; evening; night; day; and trial of void. Two review authors independently screened, extracted data and performed quality assessment for included studies.

Results

Of 10,341 records screened, 5 randomised controlled studies were included. There was no statistically significant difference in urinary retention, OR 1.21 (CI 0.79 to 1.87) and urinary tract infections (UTIs), OR 0.58 (CI 0.) between IDCs removed in the evening compared to morning. A significant result (p=<0.01) was reported for patient discharge within 24 hours of IDC removal favouring removal in the evening, OR 0.20 (CI 0.12 to 0.34). No RCTs reported patient comfort associated with IDC removal time.

Figure 1. Discharge within 24 hours of removal of IDC

Purpose

The aim of this review was to determine if the timing of removal of an indwelling urinary catheter (IDC) prevents urinary retention in the hospital setting; thereby minimising the need for re-catheterisation.

References:


Wyman, A. What time of day should a urethral catheter be removed? Journal of the Royal Society of Medicine 1987, 80, 755-756.

Looking for more information?

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