Flushing protocol to maintain peripheral intravenous catheter patency

“A flushing procedure with one flush per day allows maintenance of catheter patency without an increase in catheter-related complications” Schreiber et al (2015).

Reference:


Flushing protocol to maintain peripheral intravenous catheter patency http://ctt.ec/7Cyda+
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Abstract:

OBJECTIVE: Recent evidence supports the use of normal saline flushes in place of heparin to maintain the patency of peripheral intravenous locks (IVLs); however, there are no data regarding the recommended flush frequency.

STUDY DESIGN: This was an open, non-inferiority, randomised controlled trial. Children with IVLs, aged 1-17 years, were randomly assigned to receive saline flushing every 12 h (group A) or every 24 h (group B). The main outcome was the maintenance of catheter patency.
RESULTS: Four hundred patients were randomised; 198 subjects were analysed in the 12 h group and 199 in the 24 h group (three patients were lost at follow-up). Occlusion occurred in 15 children (7.6%) in group A versus 9 (4.5%) in group B (p=0.21). The difference in catheter patency was +3.1% in favour of the 24 h group (95% CI -1.6% to 7.7%), showing the non-inferiority of the 24 h procedure (the non-inferiority margin was set at -4%). Catheter-related complications were not different between the two groups (12.1% in group A vs 9.5% in group B; p=0.42).

CONCLUSIONS: A flushing procedure with one flush per day allows maintenance of catheter patency without an increase in catheter-related complications. We propose a simplification of the flushing procedure with only one flush per day, thereby reducing costs (materials use and nursing time), labour and unnecessary manipulation of the catheters which can cause distress in younger children and their parents.

TRIAL REGISTRATION NUMBER: The study is registered in the international database ClinicalTrial.gov under registration number NCT02221024.

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