



We conducted an audit of peripheral venous access in neonates admitted to paediatric surgical intensive care unit to study the morbidity, time spent on cannulation and cost with its use” Tandale et al (2017).

Abstract:

**INTRODUCTION:** Peripheral venous access in sick neonates is indicated for administration of fluids, drugs or nutrients.

**AIM:** We conducted an audit of peripheral venous access in neonates admitted to paediatric surgical intensive care unit to study the morbidity, time spent on cannulation and cost with its use.

**MATERIALS AND METHODS:** One hundred consecutive neonates requiring hospital admission to paediatric surgical intensive care unit in a period of one year were included in the study. Peripheral venous access was secured in all patients. We conducted an audit for the number of venipuncture sites, wastage of cannulae, cost, time spent on cannulation and morbidity with its use. Neonates were divided into three groups depending on their surgical intervention. Namely, Group A (thoracic procedures), Group B (bowel surgery) and Group C (other surgery and non-operative cases).

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RESULTS: In Group A, mean venepuncture sites were 10.66, used cannulae were 5.6, wasted cannulae were 4.3, total cost of cannulation was 870 rupees and 93.78 minutes were spent in cannulation per neonate. In Group B, mean venepuncture sites were 7.58, used cannulae were 4.35, wasted cannulae were 2.59, total cost of cannulation was 603 rupees and 59.85 minutes were spent in cannulation per neonate. In Group C mean venepuncture sites were 2.78, used cannulae were 2.9, wasted cannulae were 0.57, total cost of cannulation was 232 rupees and 26.51 minutes were spent in cannulation per neonate. Thrombophlebitis severity was greater in neonates who had longer ICU stay and ventilator dependent days.

CONCLUSION: Peripheral venous cannulation of longer duration is costly, time consuming, and associated with significant neonatal morbidity. It may be worthwhile to consider alternative vascular devices such as peripherally inserted central catheters or central venous catheters in such situations.

Reference:

Tandale, S.R., Dave, N., Garasia, M., Patil, S. and Parelkar, S. (2017) A Study of Morbidity and Cost of Peripheral Venous Cannulation in Neonates Admitted to Paediatric Surgical Intensive Care Unit. *Journal of Clinical and Diagnostic Research*. 11(3), p. UC08-UC10.

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