ABSTRACT

NURSING AND MIDWIFERY PRACTICE FOR MAINTENANCE OF VASCULAR ACCESS DEVICE PATENCY. A CROSS-SECTIONAL SURVEY.

Samantha J Keogh1,2, RN PhD; Julie Flynn MAdvPrac BN, RN1,2, Nicole Marsh1,2, RN BN MAdvPract; Karen Davies, RN PGDip2; Claire M Rickard, RN PhD1,2

1. NHMRC Centre of Research Excellence in Nursing (NCREN), Menzies Health Institute Queensland, Griffith University, Brisbane, Australia
2. Centre for Clinical Nursing, Royal Brisbane and Women’s Hospital, Brisbane, Queensland, Australia

Introduction: Up to 85% of hospital in-patients will require some form of intravascular therapy. Failure is high with 20 to 69% in peripheral intravenous catheters (PIVCs) and 15 to 66% of in Central Venous Catheters (CVC’s). Strategies developed to maintain vascular access device (VAD) patency, including flushing which may prevent occlusion. However current flushing practices of nurses and midwives are not well known.

Objective: The aim was to survey a large cohort of nurses and midwives to describe current VAD flushing practice.

Method: A cross-sectional survey of nurses and midwives working in the State of Queensland, Australia was conducted. A 25-item electronic survey was distributed. 1178 surveys were fully completed and analysed with n=1068 reporting PIVC flushing and n=584 reporting CVC flushing. The majority of respondents were aware of their facility's policy for flushing. Most respondents used sodium chloride 0.9% for flushing both devices. Some concentration of heparin saline for flushing CVCs (25%). A 10mL syringe was used by most respondents for flushing PIVCs and CVCs. However 24% of respondents used smaller syringes in the PIVC group. The majority of respondents used manually prepared flush syringes. Frequency of flushing varied, with most common responses PRN (21-23%) or 6th hourly (23-22%). Approximately half of respondents stated no medical order or documentation for either PIVC or CVC device flushing.

Conclusions Flushing practice for VADs varies widely. Areas warranting further investigation include efficacy of heparin for CVC flushing, increasing adherence to use of 10mL diameter syringes, and improving documentation of flush orders and administration.