

Pilot Survey of Home Parenteral Nutrition (HPN) set up and connection procedures in Australasia

ABSTRACT

Karen Winterbourn, Sharyn Ingarfield and Gil Hardy for Parenteral Nutrition Down Under (PNDU).

The AuSPEN (2008) and ESPEN (2009) HPN guidelines recommend that the HPN patient be trained in management of HPN. Other guidelines make recommendations regarding the frequency of replacing catheters, dressings, administration sets, and fluids but a recent UK report suggests there is no specific guidance provided for other practical aspects of the parenteral nutrition (PN) set up procedure.

METHODS

To ascertain HPN set up procedures in Australasia, we conducted an online survey of the Parenteral Nutrition Down Under (PNDU) support group for HPN consumers/parents/carers between June and July 2014.

RESULTS and DISCUSSION

There were 21 respondents, including 13 (61.9%) adult HPN consumers and 8 (38.1%) parents or carers of children dependent on HPN. Two (9.5%) respondents resided in New Zealand and the remaining 19 (90.5%) lived in Australia. Approximately half lived in New South Wales.

The survey confirmed a wide variability in PN infusion times, ranging up to 24 hours with the majority infusing for 10-12 hours. Priming volumes for PN administration sets ranged from 8-30ml with the majority choosing 20ml. One third of respondents did not use gloves for connecting their PN and a third did not use gloves for changing dressings. While two thirds used gloves for connecting PN, less than half of all respondents used sterile gloves. It would be interesting to know whether use or non-use of gloves reflects the nursing practice at the hospitals which manage the HPN patients. The use of in-line filters was fairly evenly split: 43% used filters versus 57% who did not. Heparinised saline and saline were the most frequently used catheter locks (57%). An alcohol-based lock was used by 14% and Taurolock® was used by 19%. Approximately half drew back before connecting, whilst the remainder simply flushed or connected directly.

Over 90% used a chlorhexidine-based disinfectant for either or both the PN connection and the skin site, in line with AuSPEN recommendations. The majority waited at least 30 secs for the disinfectant to dry but surprisingly some did not wait at all and others waited 'a couple of minutes'. Perhaps guidelines on appropriate drying times to maximise the effectiveness of particular disinfectants are needed.

CONCLUSIONS

Although this was a small study, our on-line pilot survey reached approximately 10% of known HPN consumers/parents/carers across the majority of Australian states and New Zealand, and we believe the results are reasonably representative of the wide variability of HPN set up procedures used in Australasia. It is not possible to ascertain what effect these differences might have on infection rates. However, these data suggest that further study is warranted to determine the best evidence-based procedures for more standardised HPN training programmes.

ACKNOWLEDGEMENTS

Thank you to those HPN consumers/parents/carers who participated in the survey.