

A PILOT OBSERVATIONAL SURVEY OF SWIMMING PRACTICES & EXPERIENCES OF AUSTRALASIAN HPN PATIENTS

BACKGROUND

Swimming is an excellent form of aerobic exercise and a great social activity 'down under' where just about every family swims on holiday and learning to swim is considered an essential life skill for all children.

Nevertheless, individuals who require home parenteral nutrition (HPN) have to consider swimming options carefully. "People with central venous catheters (CVC) may be predisposed to catheter-related bloodstream infections (CRBSI) from water submersion. However, the risk of infection after swimming has not been well studied. There is currently no strong evidence that swimming causes an increase in CRBSI. Conversely, there is also no evidence to suggest that this is a safe practice.

Common sense suggests that lakes and stagnant ponds will more likely be contaminated but there is also evidence of human pathogens in the ocean and in chlorinated pools. These include; E. coli, P. aeruginosa, Cryptosporidium, Enterococci, and MRSA, as well as viruses. More controlled environments such as private swimming pools may theoretically minimize the risk of CRBSI. However, this may lead to a false sense of security as infections that occur as a result of swimming in a contaminated private pool will not be reported to health authorities.

These findings suggest that swimming is not a completely safe activity for those on HPN, who are already at great risk of acquiring a serious infection." [Dr.Kathy Gura. Oley Foundation annual conference in Orlando, Florida, June2014]

METHOD

In light of the importance of swimming to the 'down under' lifestyle and the quandary posed for families with only one adult or child on HPN, PNDU wanted to highlight these challenges and better understand the differing views, practices and advice available. PNDU conducted an anonymous on-line survey of members for one week between 23 March 2017 and 30 March 2017 to capture information about individual decisions of Aussie and Kiwi HPNers (ie those on HPN) and their carers to swim (or not) with a CVC.

RESULTS

- Of the 26 responses, 18 were adults and 8 were carers of children on HPN.
- Half (50%) of respondents liked to swim, 26% did not swim and the remainder did not state their preference.

- The majority (62%) used a tunnelled CVC (16/26), 27% (7/26) used an implantable port, 2/26 used a PICC line and one used an AV fistula.
- All carers of children had consulted their hospital team for advice on the advisability of swimming, compared to 12/18 adults (67%).
- The hospital team advice ranged from 'absolutely not' (11/20) to 'swimming permitted' (5/20). More specific advice included: no spas (2); change dressing immediately afterwards (2); cover CVC site (3); only in dry suit (1); only in highest quality water (not specified) (1).
- 80% of those who had been advised not to swim would consider swimming if more information or advice about safety considerations or additional safety protections were available.
- Of those who regularly swim, 11/13 (84.6%) swim in the sea or in private pools, 6/13 swim in public pools, and 2/13 in rivers.
- Approximately 40% swim regularly (every 1-2 weeks), 40% only swim on holiday or about once per year.
- The majority had not consulted their local authority for information on the 'cleanliness' of the water, but 5/13 had 'Googled' or otherwise checked the routine for chlorinating pools. A similar number just used 'common sense' or their own judgement, and one carer reported using a dry suit for their child.
- Those with an implantable port ensured the needle had been out of the port for at least an hour before swimming. Some with tunnelled CVC (7/13) used a variety of techniques for covering the CVC site/dressing including protective waterproof sleeves or dry suits. The remainder took no special precautions.
- The majority who swim (10/12) claim to change their CVC dressing immediately or ASAP after swimming.
- In the general comments, one respondent enthused about a dry suit and 4 respondents re-confirmed their enthusiasm for swimming, especially if more information and advice was available.
- **No-one reported having a CVC line infection that could be directly related to swimming.**

CONCLUSIONS

Swimming is an important and intrinsic part of the lifestyle culture 'down under'. Consequently, a considerable number of PNDU members are enthusiastic about swimming but generally recognise the potential dangers and are prepared to take special precautions in order to minimise the risks of infection. Information from local authorities, regarding the water quality of public pools and the sea, if available, is not well publicised. Advice from different hospital teams appears inconsistent, but the majority of those who had been advised not to swim, would consider swimming if more advice on safety considerations was available. There is therefore a need for HPN families to receive more standardised evidence-based advice from health professionals throughout Australasia.

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