

**Submission
No 48**

THE PROGRAM OF APPLIANCES FOR DISABLED PEOPLE (PADP)

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Nutricia Australia's Homeward Home Enteral Nutrition Services (HENS) involves home delivery of enteral products and equipment and offers home support for patients. Patients in NSW currently have access to special pricing via the NSW HENS tender and can purchase enteral products, equipment and consumables directly through Nutricia. It is through dealing directly with patients at home on the Homeward programme that Nutricia has had exposure to the Program of Appliances for Disabled People (PADP).

Patients eligible for the PADP have access to feeding pumps and consumables (feeding sets), however the current level of equipment made available appears to be inadequate to meet the patients' needs and Nutricia is aware of the following:

- Patients are receiving less than adequate feeding sets, on average 1-2 per week.
- Patients are being provided with consumables that are incompatible with the equipment they are using.
- Inequity of access to the various pumps and consumables available on the NSW Tender, limiting the mobility of some patients on enteral feeds.

Patients receiving less than adequate feeding sets

The costs associated with enteral feeding are similar to that of a regular daily food intake. This expense includes a feeding pump, disposable feeding sets and formula.¹ Although manufacturers state that enteral feeding sets are single-use only, patients in the home setting on the PADP receive 1-2 sets per week and are forced to clean and reuse this single-use equipment.

In the ambulatory patient setting, enteral feeding equipment is often cleaned and reused for several days before being replaced with fresh equipment due to patients being supplied less than adequate feeding sets². This practice is often associated with microbial contamination of the feed, which is of great concern. Studies have shown that colonisation, infection, and septicaemia can occur in adults using contaminated enteral feeds³ the consequences of which are serious, especially in at-risk populations (e.g. paediatric, elderly and immunocompromised).

Microbial contamination may result from poor hygiene practices, inappropriate handling of feeds and associated equipment, and inadequate methods to clean and decontaminate the equipment. Several studies concluded that cleaning with water, soap and/or hypochlorite solutions is not adequate to decontaminate enteral feeding equipment, thus increasing the risk of microbial contamination.^{2,4-5} Such microbial contamination may be due to difficulty with washing and drying the equipment.⁵

Another source of contamination is from retrograde migration and colonisation of the patient's own intestinal bacterial in the feeding set if the feed hang time is extended beyond the recommended 16-24 hours.² Furthermore, enteral feeding solutions provide bacteria with the ideal conditions (water, nutrients and ambient temperature) to promote bacterial proliferation.

Unlike the UK and USA, Australia does not have any microbial standards for enteral products.² Multiple studies demonstrate that intestinal colonisation and secondary complications may occur in patients receiving enteral feeding solutions with bacterial presence measuring greater than $10^3 - 10^4$ c.f.u/ml.⁵⁻⁷ The results of these studies may warrant the introduction of microbial standards for enteral feeds in Australia.

Therefore, it is suggested that equipment intended for single-use should be discarded after 24 hours to reduce the risk of microbial contamination and secondary complications.

The issue of reusing single-use equipment was addressed by the Therapeutic Goods Administration (TGA) in June 2005. The TGA fact sheet conveys the issue of professional liability for health professionals providing advice in discordance with the manufacturers recommendations for single-use equipment. This has become a common issue for health professionals with intentions to reduce the expense of enteral feeding for their patients. Ultimately, the manufacturers; recommendations should be adhered to unless the health professional can support their advice to deviate from such recommendations with sound evidence. The current provision of 1-2 feeding sets per week through PADP is not in line with these recommendations.

Patients are being provided with consumables that are incompatible with the equipment

Patients are being supplied feeding sets that are not appropriate to the type of enteral feeding pump they may have (e.g. one patient has a Flocare 800 pump (Nutricia) and receives Kangaroo bag feeding sets (Tyco)). These feedings sets, are not 100% compatible with pump and can easily dislodge from the pump and permit the enteral feed to free flow to the patient with the possibility of fatal over-feeding.

Inequity of Access

The majority of home patients on the Homeward HENS programme receiving support from PADP are provided with Tyco pumps and giving sets. They find it very difficult to access pumps and consumables from other companies and the Kangaroo pumps they do receive are very old. Some home patients have expressed the need to obtain a different pump, to enable more mobility (smaller, lighter pumps) however have found it very difficult to obtain the feeding sets for these pumps through PADP.

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6. Oie, S. and Kamiya, A. 2001, *Comparison of microbial contamination of enteral feeding solution between repeated use of administration sets after washing with water and after washing followed by disinfection*, Journal of Hospital Infection, vol. 48, pp. 304 – 307.
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