

# Feed-and-flush pump set usage for enteral nutrition in homecare

Caitlin Haines RD, CNSC, LD, LDN, LRD

June Greaves RD, CNSC, CDN, LD, LDN, LRD

## Background

Many inpatient care facilities utilize the dual pump bag set feed-and-flush system as a mode of water delivery for enteral nutrition patients. The supporting reason most frequently given is the strain on staffing of caregiving professionals in these inpatient care environments. In the homecare setting, utilizing a syringe to flush the tube is the known standard as this supports hydration and patency. The literature lacks support for the use of the dual pump bag set feed-and-flush system.

## Purpose

The purpose of this study is to identify key characteristics of a homecare population for one national provider who use a dual pump bag set feed-and-flush system for enteral feeding and water flushing.

## Methods

- A retrospective review of all patients of a nationwide home infusion company with service initiated over a 6-month period.
- Patients without water flush evaluations were excluded from review if their orders were unclear.
- Metrics reviewed included age, region of residence, primary diagnosis, type of feeding tube and, for those with clear flush orders, the flush interval, number of hours on pump, total water delivery.

## Results

- 314 Patients were reviewed
  - 56 (18%) excluded from flush order analysis as orders not specified
- See Tables 1-4 and Figures 1-3 for results

Table 1. Primary diagnosis (Dx)

Diagnosis	Dysphagia	Feeding Difficulties	Oncology	Gastroparesis	Other Dx given
Number of patients	156	68	17	15	58
% of patients	50	22	5	5	18

Table 2. Type of feeding tube

Tube Type	G	J	GJ	NJT	NGT
Number of patients	192	60	59	2	1
% of patients	61	19	19	1	<1

G (Gastrostomy Tube); J (Jejunostomy Tube); GJ (Gastro-Jejunostomy Tube); NJT (Nasojejunal Tube); NGT (Nasogastric Tube)

Table 3. Hours on pump

Hours on pump	12 hrs or less	> 12 hrs
Number of patients	55	203
% of patients	21	79

Table 4. Total water delivery

Total water delivery	500 ml or less	501-1999 ml	2000 ml or more
Number of patients	112	144	2
% of patients	43	56	<1

# Conclusions

## The population characteristics of feed-and-flush set usage included:

- Patients 60 years of age or older
- Common diagnoses of: Dysphagia, cancer, gastroparesis, and feeding difficulties
- Majority usage of G tube for enteral nutrition deliver

## Further evaluation of feed-and-flush pump set usage for enteral nutrition in homecare is warranted to discover:

- The true clinical need for the feed-and-flush dual pump bag set regarding hydration requirements
- The impact it has on tube patency
- Impact the involvement of a homecare dietitian may have on managing hydration of these patients



Figure 1. Age

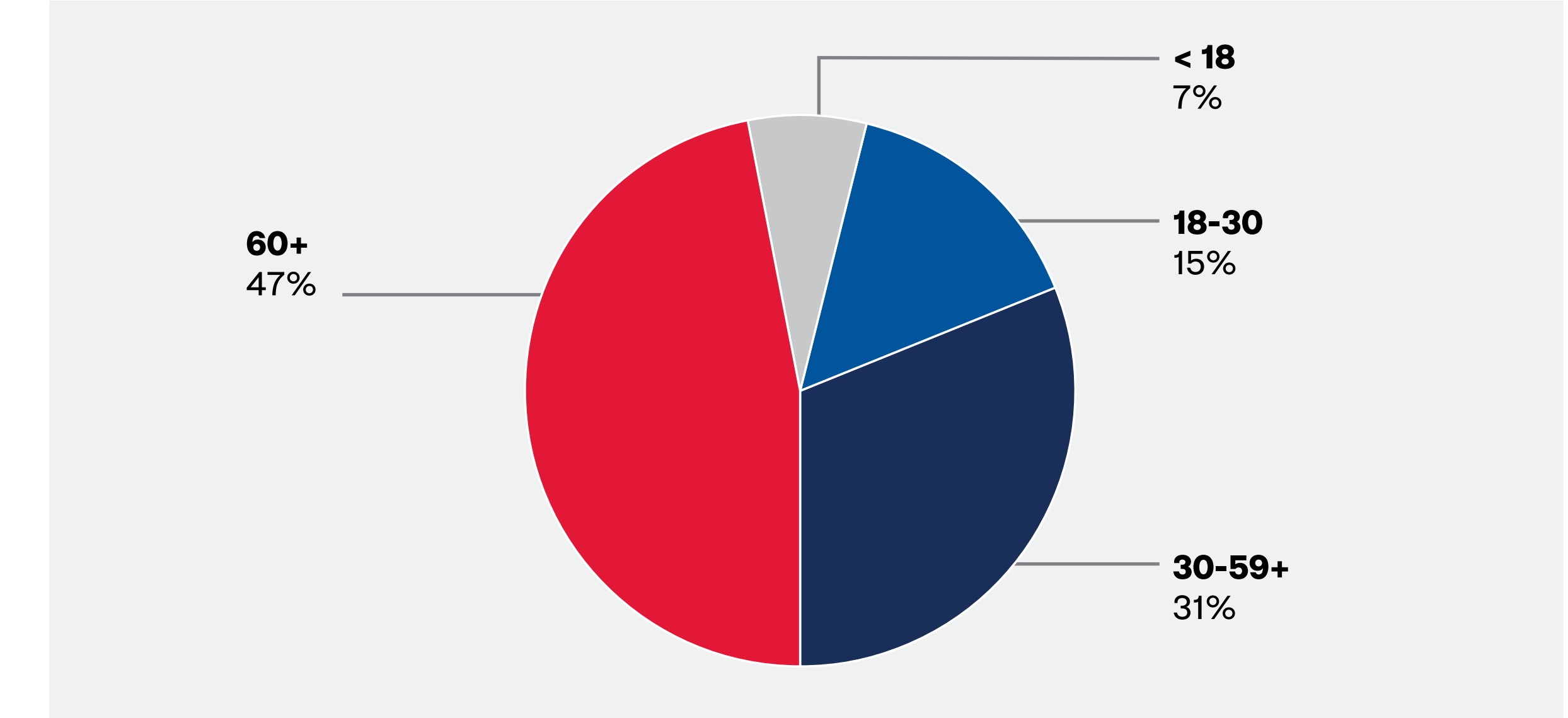


Figure 2. Region of residence

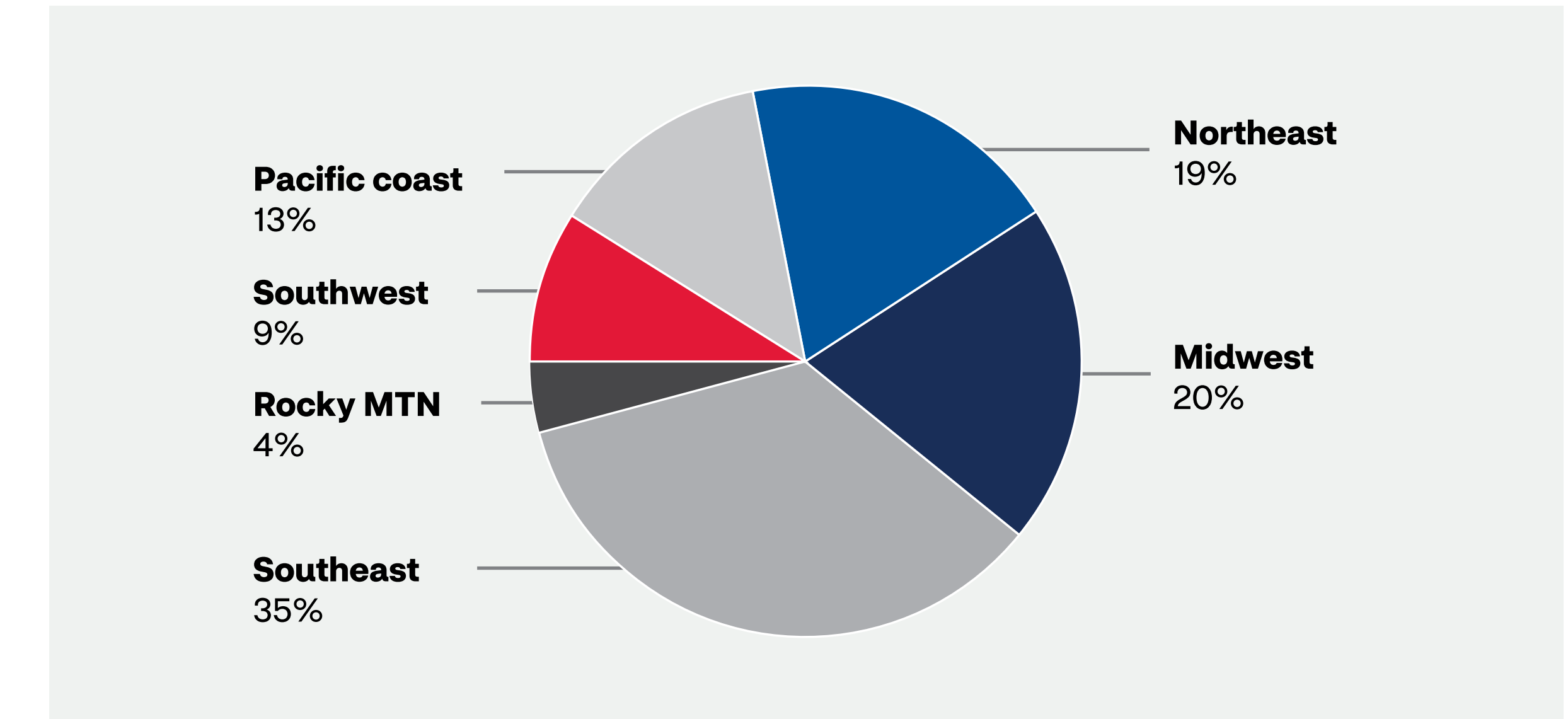


Figure 3. Flush interval

