

Home Parenteral Nutrition Patient Experience and Clinical Outcomes

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Background

Parenteral nutrition is a complex infusion therapy that impacts a patient's health and well-being. The National Home Infusion Foundation (NHIF) collects data on the home parenteral nutrition (HPN) patient population. Quality measures monitored through two NHIF benchmarking programs provide data from patient satisfaction surveys and rates of hospital readmission within the first 30 days of home infusion services. The purpose of this research is to analyze the HPN patient data to determine outcomes and patient experience. To meet the research objectives, NHIA used data to determine if HPN patients were more satisfied or less satisfied with their home infusion services than patients on other infusion therapies and the incidence and reason why HPN patients were readmitted to the hospital during the first 30 days of HPN.

Methods

Study data was obtained from the NHIF database, including data from the NHIF-validated Patient Satisfaction Survey. Home infusion providers were invited to submit quarterly HPN patient data during the collection period using the NHIF-selected study variables input into the data collection form. Since the providers and patient data were de-identified prior to submission to NHIF, and no sensitive patient information was used in this study, it did not require Institutional Review Board (IRB) review.

Data variables used in the study were defined and include:

1. An unplanned hospitalization is "related" to the infusion therapy when it occurs in response to an event associated with the infused medication, access device, administration method, or the diagnosis and/or symptoms being treated.
2. An unplanned hospitalization is "unrelated" to the infusion therapy when it occurs in response to an event that is NOT associated with the infused medication, access device, administration method or the diagnosis and/or symptoms being treated.
3. Insufficient response includes exacerbations of diagnosis and/or symptoms being treated with home infusion therapy.
4. Change in eligibility includes, but is not limited to: unsafe home environment, lack of caregiver support, reimbursement challenges, loss of IV access, desire for home treatment or unable to comply with home treatment orders.

Results

Patient satisfaction survey data was collected from January 2019 through March 2023 with 705 HPN and 29,386 aggregate "all therapy types" patient survey data collected. The patients' level of agreement to the statement "I was satisfied by the overall quality of the services provided" was compared (see Figure 1). Combined Agree and Strongly Agree percentages for HPN and all therapy types patient surveys were 97.87% and 97.59%, respectively. The 30-day hospital readmission data was collected from January 2021 through March 2023. The reasons for hospitalization are shown in Figure 2. The all-cause hospitalization rate was 36.29% (n=1,692) (see Figure 3). The results shown in Table 1 reported 73.38% of HPN patients resumed therapy post-hospitalization.

TABLE 1:
Outcome of Hospitalization During First 30 Days of HPN (n=293)

Resumption of home infusion services without therapy changes	73.38%
Home infusion services discontinued	15.02%
Resumption of home infusion services with therapy changes	8.53%
Pending/remains hospitalized at time of reporting	3.07%
TOTAL	100.00%

FIGURE 1:
Patient Satisfaction Survey Response to the Question, "I was satisfied with the overall quality of the services provided."

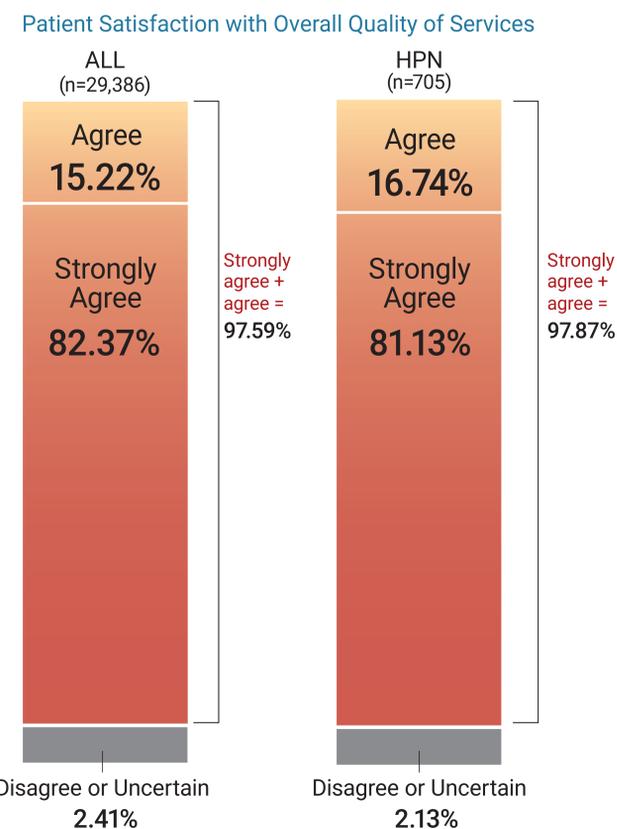
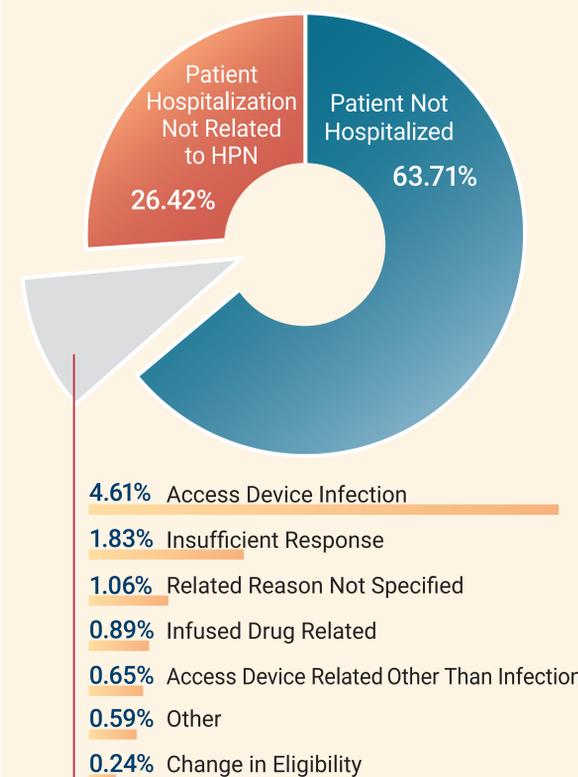


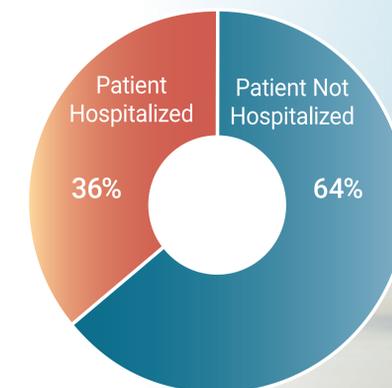
FIGURE 2:
HPN Hospitalization Data During the First 30 Days (n=1692)



Discussion

HPN patients are highly satisfied with their home infusion services and slightly more satisfied than the other aggregated therapy types studied; however, 36.82% of patients who initiate HPN return to the hospital within the first 30 days of HPN therapy. This suggests that the process of transitioning from hospital to home needs further investigation and improvement. To better understand the transition of care for HPN, the study included information on whether the hospital readmission was related to home infusion services. When the hospital readmission was related to the HPN, the top 3 reasons reported were access device infection, insufficient response, and adverse drug reactions. Outcome data on the patients hospitalized related to HPN show more than 80% of patients resume HPN with or without changes to the HPN therapy.

FIGURE 3:
HPN Patient Rate of Hospitalization for All Causes (n=1692)



Conclusions

The results from this study show a high rate of satisfaction in patients on home parenteral nutrition, and patients are slightly more satisfied than patients infusing other therapy types. When patients are readmitted to the hospital, they have a high rate of resuming parenteral nutrition at home.

Keywords: Home Infusion, Parenteral Nutrition, Outcomes, Site of Care, Satisfaction

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