

# PHP185 Preferences for the characteristics of home enteral nutrition (HEN) via tube feeding: a discrete-choice experiment

Authors: Olveira G<sup>1</sup>, Martínez-Olmos MA<sup>2</sup>, Fernández de Bobadilla B<sup>3</sup>, Ferrer M<sup>4</sup>, Virgili N<sup>5</sup>, Vega B<sup>6</sup>, Blanco M<sup>7</sup>, Layola M<sup>7</sup>, Lizán L<sup>8</sup>, Tribaldos Causadias M<sup>8</sup>

Filiation: 1. Hospital Regional Universitario de Málaga, Málaga, Spain; 2. Hospital Universitario de Santiago, A Coruña, Spain; 3. Hospital General Universitario de Ciudad Real, Ciudad Real, Spain; 4. Hospital Universitario Clínico Virgen de la Arrixaca, Murcia, Spain; 5. Hospital Universitario de Bellvitge, Barcelona, Spain; 6. Hospital Universitario Ramón y Cajal, Madrid, Spain; 7. Nestlé Health Science, Barcelona, Spain; 8. Outcomes'10, Castellón, Spain.

# INTRODUCTION

- U HEN allows the delivery of enteral formulas via tube feeding in the home setting, thus accomplishing two desirable targets: minimizing hospital stays<sup>1</sup> and improving patient's health related quality of life (HRQoL)<sup>2</sup>.
- U With a high incidence in Spain (67/106 inhabitants/year<sup>3</sup> and increasing), HEN has experimented a notable evolution, leading to a complex scenario in which physicians have to choose among a wide variety of formulas and presentations<sup>4</sup>.
- Knowing patients' and physicians' preferences about HEN characteristics can help establish a treatment that enhances patient's adherence, acceptability and HRQoL<sup>3</sup>. Notably, caregivers play a special role when patients are mentally impaired.

- All of the attributes were found significant (p<0.001) except information, which was excluded, and system connections (p=0.734 for patients) (Table 2, Figure 3).
- O Patients and physicians agreed in tolerability, adaptability and nutrients being the most important attributes. However, significant differences were found (p=0.007) (Table 2).

#### Table 2. Partial utilities comparison in DCE among patients and physicians

Attribute (alternative/ reference)	Patients (95% CI)	Physicians (95% CI)	Physicians-Patients (95% CI)	р
Tolerability (easy/difficult)	2.09 (1.67-2.51)	3.32 (2.60-4.04)	1.23 (0.47-1.99)	0.002
Adaptability (adapt/no adapt)	2.10 (1.62-2.57)	2.11 (1.41-2.81)	0.01 (-0.73-0.75)	0.972
Nutrients and calories (contribute/do not contribute)	1.64 (1.39-1.89)	2.42 (2.0-2.84)	0.78 (0.21-1.34)	0.007
Handling (easy/difficult)	0.53 (0.31-0.74)	1.18 (0.80-1.56)	0.65 (-0.57-1.87)	0.297
Connections (easy/difficult)	0.05 (-0.25-0.35)	0.93 (0.53-1.33)	0.88(-1.03-2.78)	0.372
Information (included/not included)	NA	NA	NA	NA

# OBJECTIVES

- To elicit and compare preferences for the characteristics of HEN products among patients and physicians, using a discrete choice experiment  $(DCE)^5$ .
- U To assess the representativeness of the caregivers' perception when answering on behalf of the patient in their care.

## METHODS

literature review and two focal groups including physicians (n=5) and patients and caregivers (n=5; n=4) (*Figure 1*) lead to the selection of 6 main HEN attributes for the DCE, with 2 levels each (Table 1), as well as 8 characteristics to be evaluated in an ad hoc questionnaire.

#### Figure 1. Steps followed for the DCE



#### Figure 3. Relative importance assigned to HEN attributes by patients and physicians



• Age was the only explanatory variable for preferences: older patients (>75yo) were more concerned about container characteristic while younger patients (<75yo) preferred tolerability.

#### Nutrients and calories: Provides the nutrients and calories needed by the patient/ Does not provide

Container characteristics (handling): Its characteristics make easier to

Connections between the container and feeding tube: Are easy to perform/ are hard to perform

**Information:** The container includes information about the nutrient composition and branding/ does not include

- $\bigcirc$  A DCE with 8 choice scenarios<sup>8</sup> (supportCEs<sup>6</sup>, R<sup>7</sup>) including the attributes and levels identified, was included in the survey along with sociodemographic, professional and clinical variables.
- O An ad hoc questionnaire was designed to elicit patients concerns about HEN characteristics (5-points Likert scale; 1=not at all important and 5=very important).
- **U** Partial utilities were obtained through a conditional logit model (survival<sup>9</sup>, R) and used to estimate the Relative Importance (RI) of the attributes.
- A multinomial logit model (mlogit<sup>10</sup> for R) was applied to identify possible explanatory variables in the DCE while Cohen's kappa ( $\kappa$ ) and weighted kappa ( $\kappa_w$ ) assessed the agreement between patients and their caregivers.

- $\bigcirc$  Concordance between patients and their caregivers was moderate ( $\kappa$ =0.562).
- Patients' and physicians' answers to the ad hoc questionnaire were similar, but the latter considered more frequently important or very important the items (Figure 4).
- O Concordance between patients and caregivers along the ad hoc questions was at least moderate, ranging from  $\kappa_w = 0.305$  to  $\kappa_w = 0.737$  (good concordance).

#### Figure 4. Ad hoc responses: characteristics ranked as important or very important



\*Differences between patients and physicians significant at a confidence level of  $\alpha$ =0.05

### CONCLUSION

A total of 148 HEN patients and 114 physicians completed the questionnaire (Figure 2).

#### Figure 2. Description of the study population



\*The other 77 patients were asked to answer both them and their caregiver to assess the correlation

- Overall, patients and physicians have a similar perception on the relevance of different HEN characteristics. However, significant differences can be found.
- Caregivers showed a moderate concordance with patients' preferences in the DCE, and even a good concordance in the additional questions, indicating that they can put themselves in the position of patients when providing medical care.
- Although there was an overall agreement, differences suggest that patient's preferences should be considered when prescribing a HEN product and, when necessary, their caregivers can provide a reliable approach to their needs.

#### REFERENCES

RESULTS

1. Klek S. et al. Am J Clin Nutr. 2014;100(2):609-15. 2. Schneider S.M. et al. Clin Nutr. 2000 Feb;19(1):23-8. 3. Wanden-Berghe C. et al. Value Health. 2013:16(1):3-13. 6. Aizaki H. J Stat Softw 2012; 50(2):1-24. 7. R Core Team (2015). R Foundation for Statistical Computing, Vienna, Austria. Available at: http://cran.r-project.org/web/packages/survival.pdf. 10. Croissant Y. Available at: http://cran.r-project.org/web/packages/mlogit/mlogit.pdf.



ISPOR 19<sup>th</sup> Annual European Congress, 29 October-2 November 2016, Vienna, Austria

