

TEDUGLUTIDE VERSUS HOME PARENTERAL NUTRITION IN PAEDIATRIC POPULATION WITH SHORT BOWEL SYNDROME

*Rodenas-Rovira M¹, Padilla-López A¹, Vázquez-Polo A¹, Escobar-Hernández L¹, López-Briz E¹, Arnau-Blasco B¹, Chovi-Trull M¹, García-Pellicer J¹, Poveda-Andrés JL¹

¹Servicio de Farmacia, Hospital Universitari i Politecnic La Fe, Valencia.

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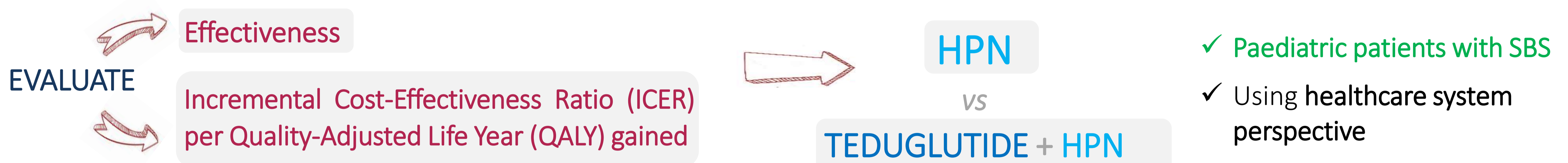
*corresponding author: rodenas_marrov@gva.es@gva.es

ATC code: A16 OTHER ALIMENTARY TRACT AND METABOLISM PRODUCTS

Background and importance

LONG-TERM HOME PARENTERAL NUTRITION (HPN) in paediatric population with short bowel syndrome (SBS), which incidence is estimated to be 24.5 per 100,000 live births, has significant survival improvement, but it is associated with complications and impact on life quality. TEDUGLUTIDE may decrease HPN support and achieve enteral autonomy (EA) by accelerating intestinal adaptation.

Aim and objectives



Material and methods

Observational, descriptive and retrospective study + From May 2018 to August 2024 + Tertiary care hospital

Children (neonates-16 years) with SBS receiving HPN and TEDUGLUTIDE

Variables
Electronic medical records
Logistics management program

Children: age; sex, weight.

TEDUGLUTIDE: start/end date, posology, annual acquisition cost/patient with and without repackaging.

HPN: start/end date, units/week 12 months prior to teduglutide initiation (PRE-TEDU) and last 12 months with teduglutide (POST-TEDU), annual acquisition cost/patient.

QALYs and direct non-acquisition costs (drug complications, medical visits and intestinal transplantation) were obtained from Gattini et al.(1)

Quantitative variables were expressed as median and range, and qualitative variables as number and percentage (%).

Results

HPN + TEDUGLUTIDE

6 patients

3 (50%) female

8.50 (4-16) years

21 (17-51) kg

First dose 4.71 (2.04-8.80) years from HPN onset

Duration 3.99 (0.49-6.26) years

Continued with treatment 5 (83.33%) patients

Posology 0.05 (0.02-0.05) mg/kg/day

Annual acquisition cost/patient
Repackaging: 35,020€ (17,829€-131,586€)
No repackaging: 216,899€ (51,643€-234,974€)

↓ 225 (0-365) HPN annual number POST-TEDU vs PRE-TEDU
2 (33%) patients achieved EA POST-TEDU

↓ Δ annual cost/patient POST-TEDU
Repackaging: 23,805€ [(-16,293€) - 81,966€]
No repackaging: 187,668€ (51,643€ - 191,879€)
QALY(1) 1.80 (1.70-1.89)

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Repackaging: 13,225€ [(-9,052€) - 45,537€/QALY]
No repackaging: 104,260 € (28,691€ -108,038€/QALY)

Conclusion and relevance

Compared to HPN, repackaged TEDUGLUTIDE allows EA to be achieved with a cost-effectiveness criterion below the threshold of 30,000€/QALY gained, starting at least 2 years after PN initiation. Future studies with larger sample size and utility national data would be necessary.

References and/or acknowledgements

1. <https://doi.org/10.1016/j.clnu.2023.10.001>

