

E-LEARNING TO IMPROVE PAEDIATRIC PARENTERAL NUTRITION PRESCRIPTION ? A PILOT STUDY IN TWO UNIVERSITY'S HOSPITALS.

Dre. L-M. Petit¹, Dre. P. Le Pape², Dre N. Bajwa³, Dre V. Marchand⁴, Dre S. Delestras¹, Dre C. Fonzo-Christe¹, Dr P. Bonnabry^{2,5}, Pre VA McLin¹.

¹Geneva University Hospitals, Unit for gastroenterology, hepatology and nutrition, Geneva, Switzerland, ²Geneva University Hospitals, Pharmacy, Geneva, Switzerland, ³ Geneva university Hospital, Department of Pediatrics, Geneva, Switzerland, ⁴Montreal University Hospital Sainte Justine, Montreal Canada ⁵University of Geneva- University of Lausanne, School of Pharmaceuticals Sciences, Geneva, Switzerland.

No conflict of interest to declare

Objective

To assess and compare the impact of an **E-learning module, as computer based learning** on the ability of physicians to manage theoretical clinical cases focusing on **prescription of paediatric parenteral nutrition.**

Background

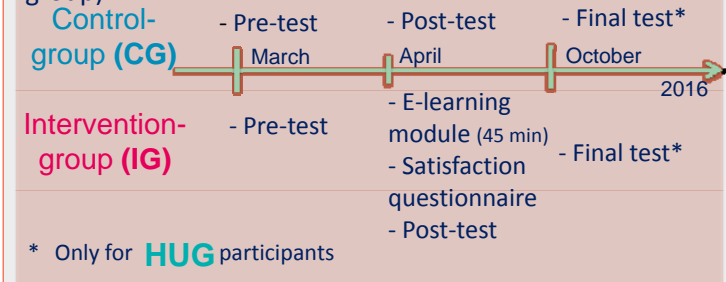
- Education and training are strongly needed to improve prescription of paediatric parenteral nutrition (PN).
- Prescription of paediatric PN may be performed by physicians or clinical pharmacists in university hospitals
- Differences in knowledge of prescribing and non-prescribing physicians may be expected.
- Lack of knowledge in physicians may lead to delayed prescription or error in IV administration of caloric needs.

Methods

- Two paediatric university hospitals : in - training physicians

 HUG Geneva - Switzerland Participants : Prescribing physicians	 CHUSJ Sainte-Justine - Canada Participants : Non-prescribing physicians
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- Study design : randomized controlled study in each hospital (Intervention group (E-learning) vs Control-group)



- Pre-, post-test and final * included 3 clinical cases (score range 0 to 250 points) :
 - ✓ Case one : to determine energy intakes
 - ✓ Case two : to perform appropriate monitoring
 - ✓ Case three : to find errors on a nutrition parenteral prescription

- Outcome: scores' differences between tests in both groups (globally and in each hospital)

Global satisfaction


6. I Would you recommend this module to your

Yes

No

-100% (n=32) estimated that the E-learning module met their needs

- 100% (n=32) would recommend it to their colleagues.



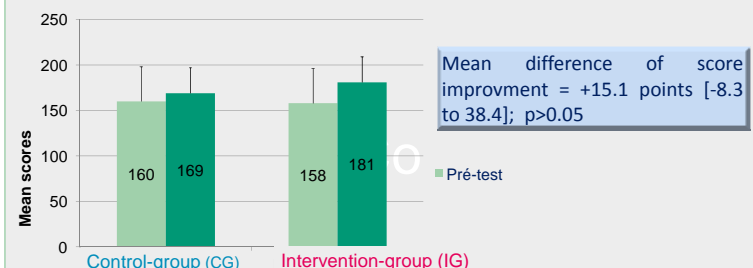
Results

- 65 physicians in training : 36 **HUG** directly involved in prescribing PN

	HUG	CHUSJ
Number of physicians	36	29
Number of physicians in each group	(CG =18) (IG=18) (IG=18)	(CG=15) (IG=14) (IG=14)
Mean years of experience (± SD)	4.0 ± 2.8	3.1 ± 2.6
Pre-test scores (± SD)	180 ± 29	p<0.001 133 ± 24

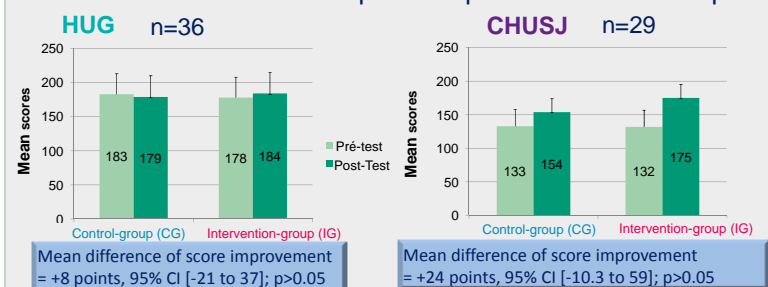
➔ **Initial knowledge scores significantly higher in HUG**

- Scores' difference between pre- and post-test



➔ **No significant E-learning impact observed but no effect of years of experience on results.**

- Scores' difference between pre- and post-test in each hospital



Final test (6 months later) for HUG participants showed persistence of knowledge without significant improvement compared to pre test results in both HUG groups.

Conclusion

- Elearning module and its evaluation did not show significant improvement in knowledge of in - training physicians.
- However training and teaching parenteral nutrition bring high level of satisfaction and score improvement in intervention group.
- Further study is needed to assess the long term education need to obtain and then to maintain significant improvement in knowledge of pediatric in - training physicians.