



## SKIN PROTECTION AND PREVENTION OF CUTANEOUS MYCOSIS

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### Introduction and aims

Skin protectors Dexeryl® and Bepanthen® contain petroleum derivatives such as petroleum jelly and paraffin. These substances may favor cutaneous mycosis by triggering an epidermis pH imbalance and development of fungal infection<sup>1</sup>.

- ➔ This observation lead our department to limit use of Dexeryl and Bepanthen in favour of calcium hydroxide liners and care oil.
- ➔ Practice change in 2016 by providing :
  - Recommendations
  - Analysis
  - Follow-up of cutaneous topical prescriptions



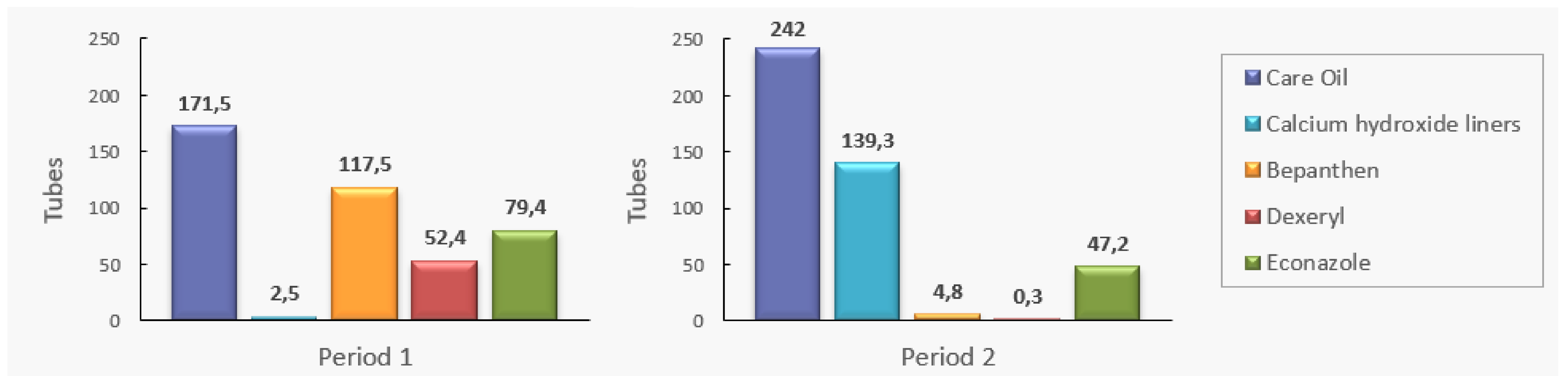
**Purpose :** To determine if there is a correlation between the prescription of petroleum derivatives and the consumption of a topical antifungal, Econazole

### Material and methods

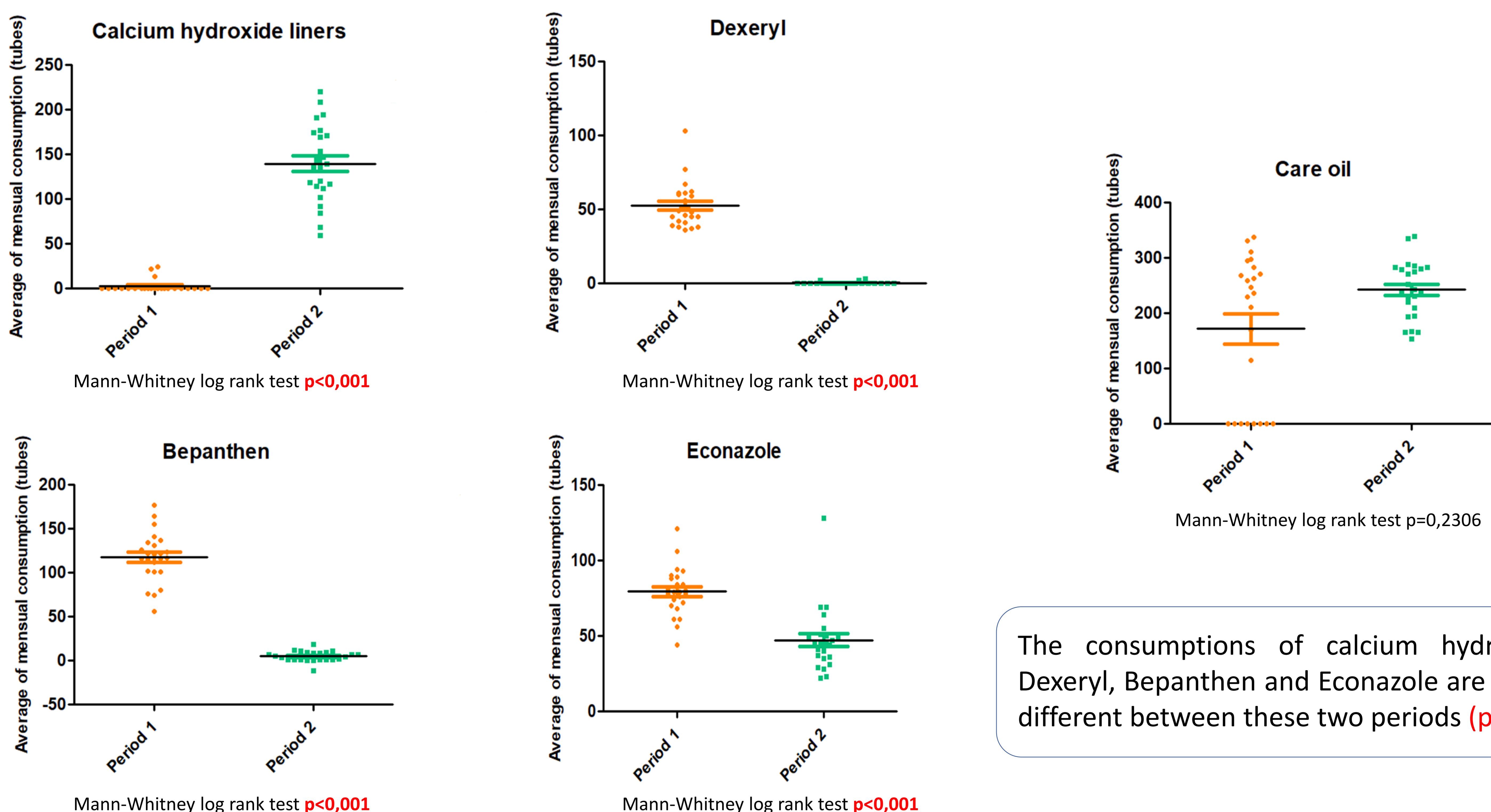
- Four years retrospective analysis of consumption in geriatric services of :
  - Skin protector with petroleum derivatives : Dexeryl, Bepanthen
  - Natural skin protector : calcium hydroxide liners, care oil
  - Topical antifungal : Econazole
- Comparison of consumptions over 2 periods with Mann-Whitney log rank test :
  - **Period 1 : 2014-2015**
  - **Period 2 : 2016-2017**

### Results

Average of mensual consumption before and after 2016 practice change in geriatric services :



Comparison of consumptions over the two periods with Mann-Whitney log rank test :



The consumptions of calcium hydroxide liners, Dexeryl, Bepanthen and Econazole are significantly different between these two periods ( $p < 0,005$ ).

### Discussion-Conclusion

A change of routine practice lead to decrease consumptions of Bepanthen and Dexeryl in favour of calcium hydroxide liners. This correlated with a significantly decreased consumption of Econazole. This results are in agreement with those of a case control study that shows that use of petroleum derivatives promoted an increase in the incidence of systemic candidiasis<sup>1</sup>. From now on, Bepanthen use is limited only to diaper dermatitis resistant to natural skin protectors calcium hydroxid liners or care oil in order to limit the risk of epidermitis deterioration. A prospective clinical follow-up is ongoing with physicians from our department to complete this data.

<sup>1</sup>Campbell J. et al., Systemic candidiasis in extremely lowbirth weight infants receiving topical petrolatum ointment for care:a case control study, Pediatrics 105 (2000) 1041