

CHARACTERISTICS OF NYCTHEMERAL RHYTHM **OF URINARY WATER AND SOLUTE EXCRETION IN CHILDREN WITH ENURESIS REFERRED TO A TERTIARY CENTER**

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MATERIALS AND METHODS

- retrospective study
- 402 children with enuresis
- 24hour urine concentration profile at a home setting (4 day) and 4 night samples): volume, osmolality, creatinin
- 3 subgroups:
 - a) low-normal nocturnal diuresis: <90% of EBC (113 cases) b) high-normal nocturnal diuresis: 90-130% of EBC (103) cases)
 - c) Nocturnal polyuria:>130% of EBC (91 cases)

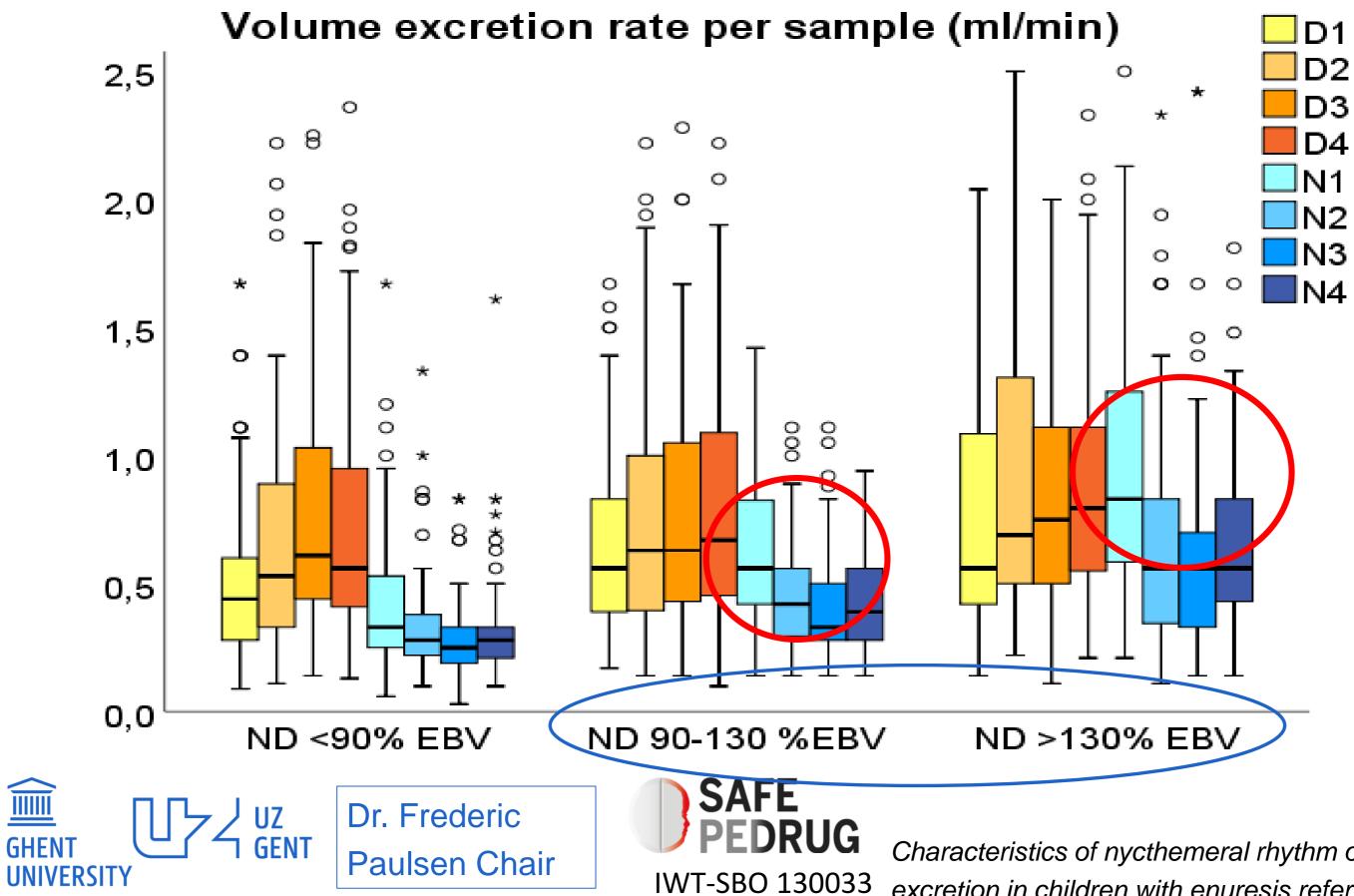




Characteristics of nycthemeral rhythm of urinary water and solute excretion in children with enuresis referred to a tertiary center²

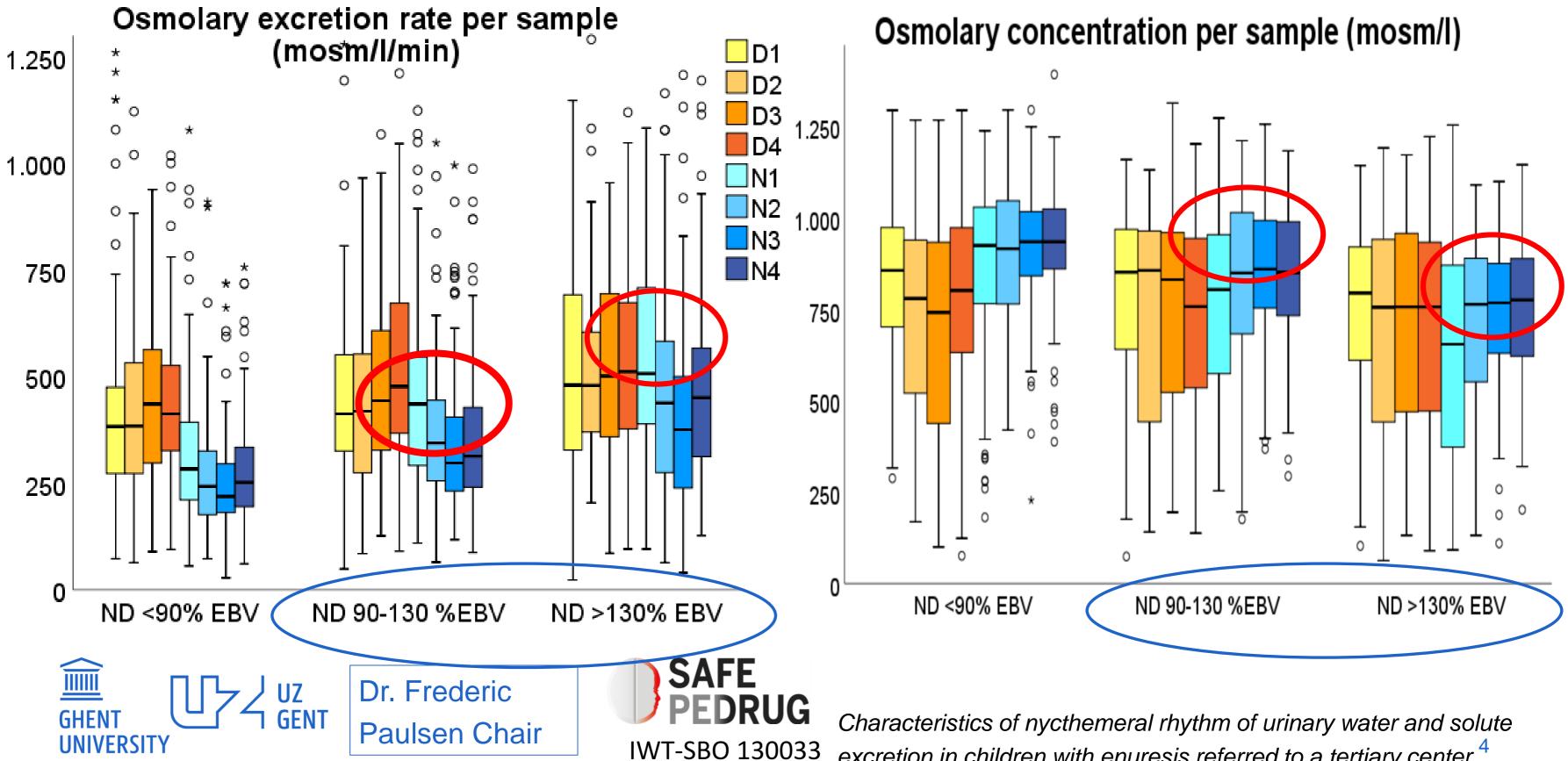
RESULTS





Characteristics of nycthemeral rhythm of urinary water and solute excretion in children with enuresis referred to a tertiary center 3

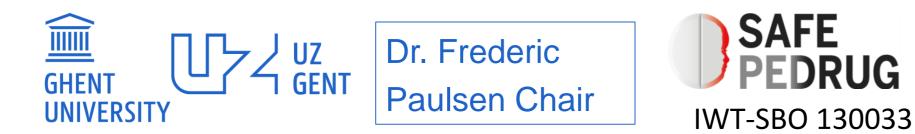
RESULTS



excretion in children with enuresis referred to a tertiary center⁴

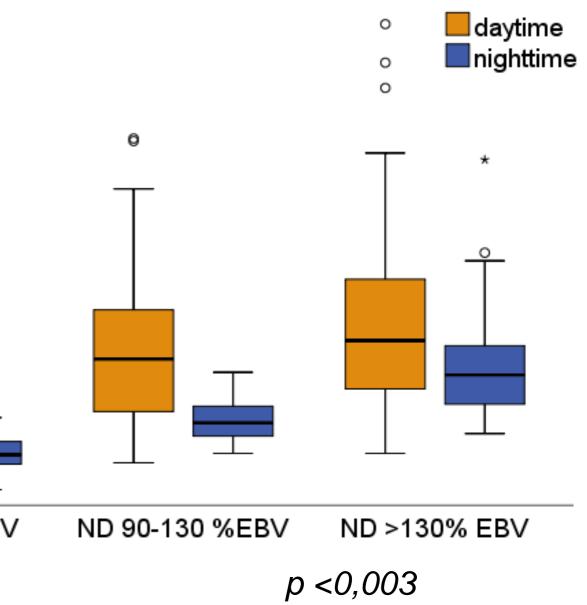


Diuresis per 24h (ml) 2.000 2.000 ð * ž 0 0 0 0 0 0 0 0 1.500 1.500 0 0 1.000 * 1.000 500 500 8 0 0 ND <90% EBV ND <90% EBV ND 90-130 %EBV ND >130% EBV

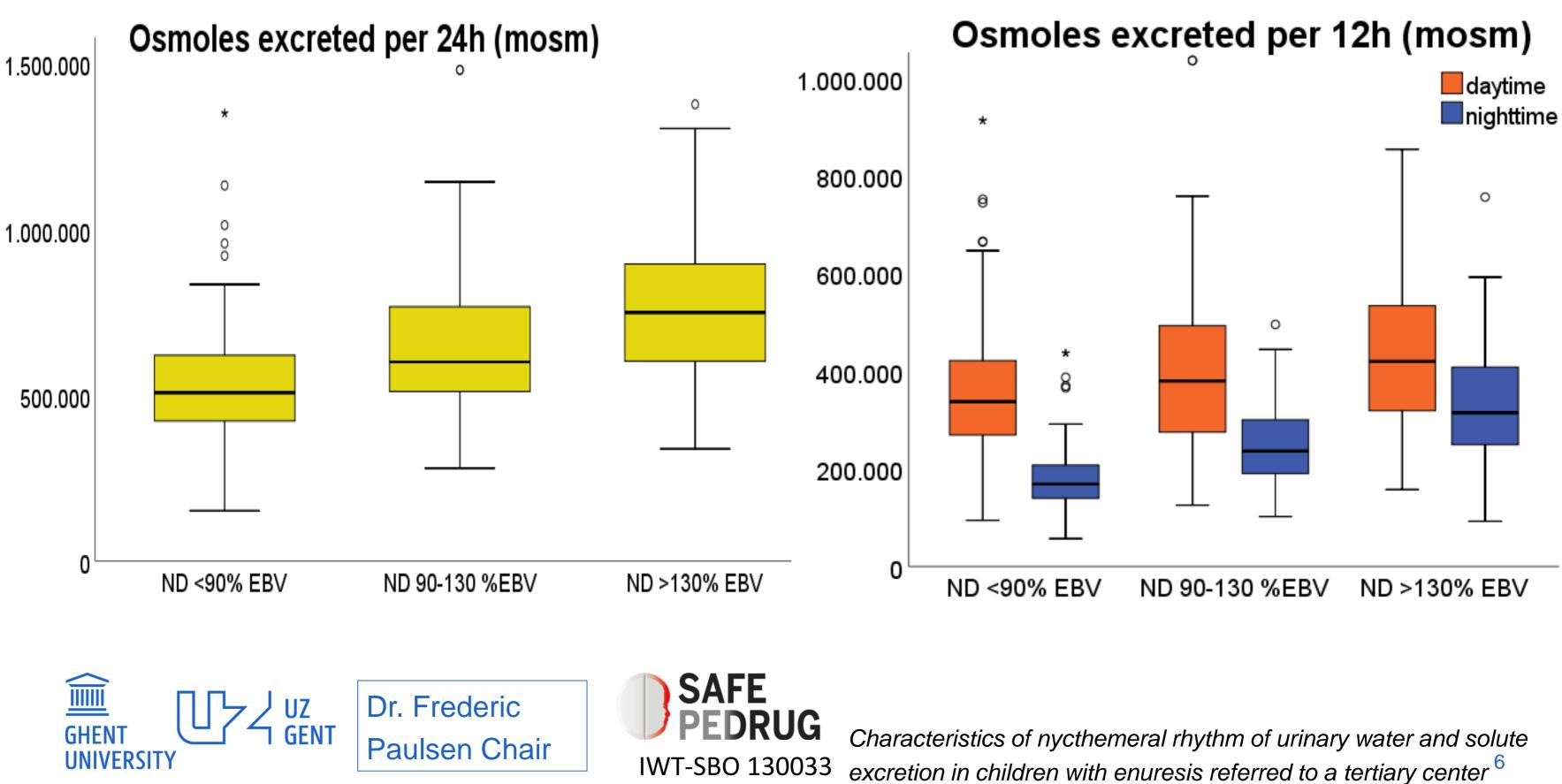


Characteristics of nycthemeral rhythm of urinary water and solute excretion in children with enuresis referred to a tertiary center ⁵









CONCLUSIONS

Nocturnal Polyuria is defined by the ICCS as >130% of EBC

- → Desmopressin **response** might be expected
 - in any nocturnal dividences with low osmolality overnight
 - in MNE and NMNE when nocturnal diversis rate is >100% EBC
- Overall pathogenesis of high diuresis rate overnight is not only AVP but also solute related
- In the majority of patients the increased water and solute divisities is present in the first two night collections
 - \rightarrow treatment should target **fast** rather than long term action.





Characteristics of nycthemeral rhythm of urinary water and solute excretion in children with enuresis referred to a tertiary center ⁽