results of the current study were compared to those of the reference population published by Charles et al.¹

Results In 15 preterm infants 58 samples were collected in which caffeine plasma levels were determined. Median gestational age (GA) was 26.3 (range 24–28) weeks, postnatal age (PNA) was 25 (0–63) days and current weight was 1100 (600–2140) grams. Caffeine CL and V_d for an individual with a PNA of 12 days were estimated 0.2 L/h/70kg (RSE 28%) and 68.2 L/70kg (RSE 73%), respectively. Maturation of CL was best described by a power function with an exponent of 0.404 (RSE 89%). These results seem in good agreement with the reference population of preterm neonates receiving caffeine without doxapram with values of 0.167 L/kg/70 kg, 58.6 L/70kg and 0.358.¹

Conclusion In this pharmacokinetic study in preterm neonates receiving both caffeine and doxapram, we found similar values for CL, V_d and maturation of CL with PNA compared to literature values obtained in preterm neonates receiving caffeine alone.

REFERENCES

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P32 DEPICTION OF HAEMATOLOGICAL AND BIOCHEMICAL LABORATORY NORMAL REFERENCE VALUES IN A EUROPEAN MULTICENTRE PAEDIATRIC TRIAL

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Background The European multicentre paediatric trials for the drug development programme of LENA (FP7 Grant agreement No. 602295); 'Labeling of Enalapril from Neonates up to Adolescents' require the determination of laboratory safety parameters. It was anticipated that the laboratory normal reference values and age range classifications vary depending on the clinical site. Thus, the objective was a seamless and clear depiction of the laboratory parameters to allow an adequate subsequent analysis of data.

Methods Fourteen haematological and biochemical safety parameters plus the biomarker N-terminal pro-brain natriuretic peptide were considered. The laboratory normal reference values received from eight clinical sites were screened on data gaps, uncertainties, misclassifications and overlap of age range classifications. These aspects were revised. If further data were necessary for clarification the responsible person of the respective laboratory was contacted by email or telephone.

Results Data gaps and uncertainties of the laboratory normal reference values such as missing data for one sex, missing data for an age range classification, missing data for a parameter or overlap of age range classification were identified. All issues were solved by communication with the sites. Each laboratory parameter was categorized in between 1 and 23 age range classifications between an age from birth to 4744 days depending on the classification of the clinical site.

Furthermore, up to 4 various units were recorded per laboratory parameter and subsequently harmonised into one unit.

Conclusion The developed seamless depiction of the laboratory parameters will allow the assessment and classification of the paediatric trial data and are essential for the adequate subsequent analysis.

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P33 EFFECTIVENESS OF OSCEs IN TRAINING GERMAN PHARMACY STUDENTS IN CONSULTATION ON SELF-MEDICATION – A RANDOMISED CONTROLLED INVESTIGATION

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Background In Germany 37.1% of dispensed medicinal products were intended to use in self-medication in 2017.¹ An investigation showed that 25.2% of children and adolescents used self-medication in Germany.² Hence, pharmacists' education needs to include training for competence in consultation.³ A modern method to train this competence is the use of OSCEs (Objective Structured Clinical Examinations). The aim of this study was to assess whether the use of OSCEs in pharmacy students to train the consultation performance on self-medication is more effective than a conservative teaching method.

Methods This randomised controlled investigation was conducted in a pre-post-design with pre-OSCEs before training and post-OSCEs after training in each group. Clinical skills at baseline and after the training were measured. Forty students in their last year of pharmacy studies were randomised into a control and an intervention group. The control group attended a lecture on self-medication and the intervention group had additionally to the lecture one hour of OSCEs for training purpose. An analytical checklist was used for measuring consultation skills and a global rating scale for assessing communication skills.

Results Complete data was received from 30 students (n=16 intervention group, n=14 control group). Consultation skills improved significantly (analytical checklist: 19.88% ± 10.95% intervention group vs. 9.29% ± 10.89% control group, p<0.05). However, the communication skills (global rating scale: 20.83% ± 24.33% in the intervention group vs. 11.90% ± 17.12% in the control group, p= 0.380) did not improve significantly during the one-hour training period.

Conclusion OSCEs for training purpose are an effective method to convey pharmacy students consultation skills in self-medication. However, communication skills need more training. Based on these results OSCEs on self-medication for the paediatric population should be investigated. This is relevant due to the frequency of self-medication in the paediatric population.