Methods PI of the first semester of 2017 aimed at drugdosing recommendations for renal impairment or renal function recovery, were selected from the PI database. The information collected included drug identification and dosing recommendation made (dose reduction/increase/drug suspension). Age, weight, height and creatinine were added and GFR was calculated using the above two equations. Finally, we analysed the impact of the result on the dosing suggestion made, according to the GFR cut-off value for each drug-dosing recommendation.

Results A total of 149 interventions were included, covering 115 patients with a median age of 85 years. The recommendations for dosing alteration or drug suspension focused mainly on antibiotics (Meropenem, Piperacillin/tazobactam, Co-amoxiclav), anticoagulants (Enoxaparin, Rivaroxaban, Dabigatran) and NSAIDs. The mean difference in estimated GFR between the two formulae was 8 ml/min. However, larger differences appear to be associated with older age and body-weight limits. There were 36 (24%) cases of discrepancy between the recommendations to be made depending on the formula used.

Conclusions The choice of the GFR estimation formula may have a significant impact on the recommendations of dose adjustments, namely in the elderly and in extremes of body-weight. Because each formula has its limitations, it is crucial to interpret the result as a range of probability rather than an absolute value, and consider the complete patient context in the decision.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

NP-006

EARLY DETECTION OF RETINOPATHY IN PREMATURE INFANTS USING MIXTURE OF EYE DROPS WITH 2.5% PHENYLEPHRINE HYDROCHLORIDE AND 0.5% TROPICAMIDE

¹B Alihodžić-Dilberović, ¹M Mandžić, ²D Zvizdic. ¹Clinical Centre of the University of Sarajevo, Clinical Pharmacy, Sarajevo, Bosnia–Herzegovina; ²Clinical Centre of the University of Sarajevo, Eye Disease Clinic, Sarajevo, Bosnia–Herzegovina

10.1136/epharm-2019-eahpconf.631

Background Retinopathy of prematurity (ROP) is an eye disease that can happen in premature babies. It causes abnormal blood vessels to grow in the retina and can lead to blindness. Birthweight and gestational age are the most important risk factors in the development of severe ROP. Phenylephrine and tropicamide are most commonly used as mydriatic agents for eye examination.

Purpose Using a combination of 2.5% phenylephrine hydrochloride and 0.5% tropicamide drops, in the Neonatal Intensive Care Unit (NICU), help us to discover abnormality in retinal vascularisation in the initial phase of retinopathy. This helps in effective medical treatment and healthy visual function.

Material and methods One-thousand, five-hundred and forty premature infants with a gestational age between 26 and 32 weeks and/or birthweight between 680 g and 2100 g were examined by binocular indirect ophthalmoscopy between 2 to 4 weeks after birth, and followed up until retinal vascularisation was complete. Pupillary dilatation was done with a mixture of 2.5% phenylephrine hydrochloride and 0.5% tropicamide and instilled twice at intervals 1 hour before

examination. The eye drops were prepared in our clinical pharmacy. In order to identify the stage of premature retinopathy, and eye examination was repeated every 7 to 10 days. Depending on the results, the term of the next examination was determined every 7 to 14 days. Once the regression was achieved in two consecutive examinations, the monitoring was done once a month.

Results In this study, a total of 1540 premature infants were screened from 10 May 2017 to 16 May 2018. Maximal pupil dilatation was achieved with a mixture of 2.5% phenylephrine hydrochloride and 0.5% tropicamide. All examined infants had some type of ROP. Some children had spontaneous regression. Four infants had ROP that had to be treated with anti-VGF therapy within 24 to 72 hours.

Conclusion The early detection of ROP in premature and very-low-birthweight infants is crucial. Screening programmes for ROP should be implemented in every NICU and should be carried out by an experienced ophthalmologist and offered to all premature infants with birthweight of ≤ 2100 g or gestational age of ≤ 32 weeks to ensure early detection and timely treatment of threshold ROP to prevent its blinding sequelae.

REFERENCES AND/OR ACKNOWLEDGEMENTS

None.

NP-007

MEDICATION ANALYSIS FOR HOSPITAL PATIENTS WITH RENAL INSUFFICIENCY: FROM DEVELOPMENT PHASE TO STANDARD PRACTICE

B Kastner, W Speckner, J Albrecht. Kliniken Nordoberpfalz AG – Apotheke, 92637 Weiden, Germany

10.1136/epharm-2019-eahpconf.632

Background A previous research project¹ had confirmed that patients with renal impairment and poly-medication had a greater risk of suffering from medication-related problems.

Purpose Our objective was to develop a practicable method of monitoring medication which could be permanently integrated into the everyday routines of a team of pharmacists working at a general hospital without the facilities of a university medical centre.

Materials and methods Glomerular filtration rates (GFRs) were recorded on a daily basis by staff at the clinic's laboratory. This list enabled us to monitor the medication of 425 inpatients with GFR < 40 ml/min between March and June 2017 with regards to: (A) kidney-relevant adaption to renal insufficiency medication (e.g. wrong dosage, contraindications); and (B) significant drug interaction (ABDAMED categories) considered 'substitution necessary', and passed on the results to the doctors. The implementation of such recommendations by the physicians was checked by referring to the electronic patient record and registered in ADKA-DokuPIK.

Results In about one-third of the cases (154 patients, about six per day) the medication to be administered was changed directly or after joint consultation between the medical and pharmaceutical staff. More than half of the recommendations were immediately applied, and in roughly one-quarter of the remaining cases a decision deferred, pending further risk-benefit assessment. Therapeutic intervention (type A or B) was required for approximately 51% of the inpatients with GFRs of 10–30 ml/min, but, in contrast, only recommended for approximately 17% of inpatients with GFRs of 30–40 ml/min.