37% increase in the inclusion of problem lists and 12% increase in medication list inclusion.

Conclusion Effective communication is an integral part of clinical medicine. According to the modified SAIL assessment tool letters were not effectively communicating clinic details to primary care physicians posing a threat to patient care at the interface of paediatric primary and secondary care. Regular education and a pre designed layout positively impacts the quality of our written communication. Further steps need to be taken to ensure the continuity of standards in a centre where NCHDs rotate frequently.

GP122 IS TREATMENT WITH ATROPINE 0.01% EYEDROPS SAFE TO PREVENT THE PROGRESSION OF CHILDHOOD MYOPIA?

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Introduction In 2016 the effectiveness of atropine eyedrops in preventing the progression of myopia in children was confirmed. Atropine produces parasympathetic inhibition because avoids the acetylcholine fixation. Atropine's main indication is the cardiac stimulation in vagal bradycardia. Its principal cardiovascular side effects are: palpitations, tachycardia and atrial arrhythmias. A paradoxical bradycardia has been documented when atropine is administered at lower doses (<0.1 mg). However, this concept has now been refuted. The last guidelines of the American Heart Association for Cardiopulmonary Resuscitation recommend to eliminate the minimum dose restriction of atropine during emergency intubation (class IIb). The main reluctance of parents to use atropine eyedrops in the control of myopia of their children is the fear of the cardiac effect.

Objective To evaluate the presence of cardiovascular changes after treatment with 0.01% atropine eyedrops administered to reduce the progression of myopia in children.

Material and methods Prospective observational study in 54 patients at the Nens Hospital Foundation in Barcelona (Spain) between 2016–2018. Patients received one drop of atropine 0.01% in each eye (total dose: 0.01 mg) with one minute of tear duct occlusion. Two analyzes were performed: before starting atropine and after 3 months of treatment. The parameters assessed were: somatometric data (weight and height), constants (heart rate and blood pressure), electrocardiographic data (P wave axis, PR segment and arrhythmias) and ultrasound data (left ventricle tele-diastolic diameter).

Results The average age was 10.2 years, with a higher percentage of women (68.5% vs 31.5%). Only one patient presented symptoms of palpitations and there was only one case with arrhythmias. It was an 8 years old girl who presented premature atrial beats. There were no significant differences in the studied variables, with the exception of heart rate. The mean heart rate decreased from 79.4 bpm to 75.3 bpm ($p < 0.05$).

Conclusion The use of atropine 0.01% eyedrops to prevent the progression of childhood myopia is cardiologically safe. Daily use of very low doses of atropine (0.01 mg) over a period of 3 months results in a significant decrease in heart rate.

GP123 ALTERED SYSTEMIC INFLAMMATORY RESPONSE IN PAEDIATRIC MILD TRAUMATIC BRAIN INJURY

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Aims To evaluate systemic inflammation in TBI by exploration of the inflammasome pathway, a component of the innate immune system that regulates and induces inflammation. We examine the pathway at baseline in TBI compared with healthy control children, and in vitro in response to both LPS stimulation and melatonin therapy. Melatonin has protective effects against NLRP3 inflammasome activation and has therapeutic implications.

Methods Whole blood was sampled from children with TBI ($n=10$) within 24 hours of injury and compared to healthy age-matched controls ($n=8$) at baseline, following stimulation with bacterial endotoxin (LPS) (10ng/ml) and melatonin treatment (10^{-3} M).

Granulocytes were delineated as CD66b+ and FSC, SSC-A. Measurements of mean channel fluorescence (MCF) of CD11b and TLR4 expression on FACS Canto II were recorded and analysed with FloJo software v10. Gene Expression of NLRP3 via rtPCR was recorded in 10 patients and 10 controls at baseline and following LPS and melatonin treatment.

Results Granulocyte CD11b expression was lower in children with TBI compared to controls ($p=0.04$) Both upregulated CD11b with LPS stimulation. Melatonin significantly decreased this LPS upregulation. There was no significant difference in baseline TLR4 expression between TBI and controls, but LPS upregulation of TLR4 was decreased by melatonin in the TBI cohort. Inflammasome was upregulated via NLRP3 expression in children with TBI compared to controls ($p=0.02$). Melatonin significantly decreased LPS-induced upregulation of NLRP3 only in controls.

Conclusion Inflammation is altered in TBI compared to controls with altered responsiveness to melatonin treatment following LPS stimulation. The inflammasome is downregulated in children immediately following TBI. Selective inhibition of systemic inflammation targeting the inflammasome may have a future immunomodulatory role as a target in treating TBI.

GP124 IL1- β LEVELS AT PRESENTATION CORRELATE WITH SYMPTOM BURDEN AT 2 WEEKS IN PAEDIATRIC MILD TRAUMATIC BRAIN INJURY

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Aims To evaluate components of the innate immune system, the inflammasome, in mild Traumatic Brain Injury (TBI) and the correlation with symptom burden 2 weeks from injury. We examine activation of the pathway at presentation, and