patients received standard low dose of Salbutamol by metered dose inhaler (MDI) and inhaled Fluticasoneum propionate using spacer device with mouthpiece. Included patients were assessed for electrolytes serum levels before treatment and 72 hours after therapy. Data was analyzed statistically using independent sample T test, skewness, kurtosis.

**Results** Among 269 admitted patients, 175 children fulfilled inclusion criteria. Both groups structure: 96 children in 1st group, 83 in 2nd group. Authors found for both groups a significant decreasing of serum kalium after beta2-agonists treatment (p value=0.010). The study didn’t confirm a significant variation of serum electrolytes in 2nd group as compare to 1st group.

**Conclusions** Study confirmed significant hypokalemia after 72 hours inhaled treatment with beta2-agonists; corticosteroids didn’t modify kalium level in association with beta2-agonists.

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**Abstract 1712**

**SERUM ELECTROLYTES VARIATIONS IN TREATED PATIENTS WITH MODERATE ASTHMA EXACERBATION**

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**Background** Salbutamol induces stimulation of beta2-receptors resulting in hypokalemia. Corticosteroids also induce plasma electrolytes variations.

**Aims**

1. To identity blood electrolytes changes following low dose inhaled short-acting beta-agonists;
2. To evaluate if concomitant inhaled corticosteroids treatment can amplify serum electrolytes changes.

**Methods** We analyzed all children admitted for moderate asthma exacerbation during 6 months period. Inclusion criteria: children between 5–18 years of age; PEF >80–75% of predicted value; serum electrolytes normal ranges. Exclusion criteria: previously treated with Salbutamol; Salbutamol hypersensitivity; asthma exacerbation severity levels. The patients were divided into 2 groups: 1st group comprised those treated with beta2-agonists and 2nd group is represented by paediatric patients concomitantly treated with beta2-agonists and corticosteroids. Both groups were homogenous regarding age and sex ratio. During hospitalization, patients between 5–18 years of age; PEF >80–75% of predicted value; serum electrolytes normal ranges. Exclusion criteria: previously treated with Salbutamol; Salbutamol hypersensitivity; asthma exacerbation severity levels. The patients were divided into 2 groups: 1st group comprised those treated with beta2-agonists and 2nd group is represented by paediatric patients concomitantly treated with beta2-agonists and corticosteroids. Both groups were homogenous regarding age and sex ratio. During hospitalization, average 2nd group as compare to 1st group.

**Conclusion** Elevated serum MMP-2 and TIMP-1 levels appear to increase the risk for wheezing. Further studies will be required to determine whether therapeutic inhibitors will prevent recurrent lung morbidities in preterm infants.

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**Abstract 1714**

**ABILITY OF SELF-INFLATING BAGS (SIB) TO DELIVER SUSTAINED INFLATIONS**

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**Background and Aims** In neonatal resuscitation, the use of a sustained inflation (SI) after birth may facilitate lung recruitment. We aimed to assess the ability of several SIB to deliver a SI.

**Method** In a newborn preterm lamb, we compared 4 different SIB devices fitted with a PEEP valve against a T-piece, using a flow of 8 Lpm. Four operators aimed to give 3 targeted SI of 20 cmH2O (displayed on a manometer) for 30 seconds. The study was repeated with the PEEP valve removed and again with no flow.