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**Title:** Exhaled nitric oxide and serum IgE in children admitted to a pediatric department

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**Body:** Background. Exhaled nitric oxide (FeNO) is a noninvasive marker to assess airway inflammation in adults and children, but the clinical evidence is still equivocal. Methods. We aimed to assess the FeNO levels in children admitted to our pediatric department and to correlate the results with other diagnostic tools. We enrolled two groups of children aged 5 to 16 yrs: first (149 cases, M/F 89/60) - admitted for asthma, and the control group (100 cases, M/F 55/45), without known history of atopy. We measured the FeNO (using Niox Mino, Aerocrine, Sweden), total and specific serum Ig E. The statistical analysis was done using the Chi-squared test. Results. We found a statistical significant difference in specific IgE levels between the two groups: p = 0,01; RR = 3,76 (0,99 - 14,25), but similar values for FeNO (p = 0,19) and the total serum IgE (p = 0,59). Total IgE over 300 kU/l was correlated with high FeNO levels recorded in the asthmatic children: p = 0,009; RR = 4,28 (1,37 – 15,44), but the exhaled NO was not correlated with stage, gender nor controller therapy (corticoids and/or leucotriene inhibitors or none). Discussions. In our patients the role of FeNO in monitoring asthma is still uncertain. The correlation with high total serum Ig E (also nonspecific) may be a future approach in increasing the value for the clinical use.