**Risk factors associated with the need for inpatient treatment of chronic constipation**

**with fecal impaction in children**

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**Background:** Chronic constipation is a common problem in childhood affecting up to 30%

of children, and accounting for 3-5% of outpatient Pediatric clinic visits. Fecal impaction is a

state of severe constipation usually requiring administration of high and/or frequent doses of

laxatives. Typically, disimpaction is first attempted in the outpatient setting. However, there

are children who fail outpatient treatments, perhaps, even repeatedly, and need to be treated

as inpatients.

**Objectives:** We sought to study the prevalence of chronic constipation with fecal impaction

requiring inpatient treatment, and investigate potential risk factors associated with the need

for inpatient treatment in pediatric patients.

**Methods:** In a retrospective cohort study, medical records of all patients under the age of 21

years with chronic constipation with fecal impaction, who visited or were referred to the

Pediatric Gastroenterology clinic at MHMC between July 2012 and June 2014 were

reviewed. Medical records were reviewed for patient demographics, medical and surgical

history, symptoms of constipation according to Rome III criteria, duration of disease,

potential associated risk factors and the treatment modality and history.

**Results:** During the study period, 188 patients met inclusion criteria and 30% (58/188)

required inpatient treatment. Overall patients were initially seen or referred to the Pediatric

Gastroenterology clinic at an age of (mean ± standard deviation) 8.8±4.2 years, with 53%

(99/188) being females. The potential risk factors associated with the need for inpatient

treatment were age of onset being ≤3 years of age [OR 1.94 (95% CI: 1.03-3.65); p=0.03],

African American ethnicity [2.15 (1.07-4.31); p<0.001], history of prematurity [2.39 (1.09-

5.25); p=0.02], developmental delay [2.20 (1.12-4.33); p=0.02], encopresis [2.19 (1.09-4.39),

p=0.02], and anorexia [2.02 (1.00-4.08); p=0.046]

**Conclusion:** Chronic constipation with fecal impaction requiring inpatient treatment is fairly

prevalent in children and adolescents. Onset of constipation at a young age, African

American ethnicity, history of prematurity, developmental delay, encopresis and anorexia are

potential risk factors associated with the need of inpatient treatment of fecal impaction.

Identification of risk factors during a clinical encounter in a child with chronic constipation

and fecal impaction will be helpful in anticipating timely institution of the most appropriate

future intervention to relieve fecal impaction.