# Gastrointestinal (GI) symptoms and their impact on quality of life in Cystic fibrosis (CF) patients

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# Introduction

- Cystic Fibrosis (CF) most common life-threatening autosomal recessive disease, in Europe currently over 50,000 cases of CF registered
- Multisystemic disease, mainly involved respiratory and gastro-intestinal tract
- GI symptoms of the patients are related to the intestinal, pancreatic and hepatobiliary manifestations of the disease
- Pancreatic insufficiency (PI) very common among patients (around 85% of the patients) - leads to steatorrhea, abdominal distension and/or discomfort, flatulence, constipation and poor weight gain
- GI symptoms usually have impact on the quality of life of the patients

### Aim

- Investigate the frequency of GI symptoms among patients
- Impact of the symptoms on emotional and physical wellbeing

### Methods

#### Study population

- CF Centre, Institute for Respiratory Diseases in Children, Skopje, Republic of North Macedonia
- 34 CF patients (over 7 years)
- 31 of them pancreatic insufficient (stool elastase < 200 mcg/g stool, treated with pancreatic enzyme replacement therapy)</p>

#### **Clinical data**

Weight, height, BMI and best FEV1 were assessed from the date of the best annual FEV1

# Questionnaire

- An evaluation questionnaire designed and distributed during the inpatient clinic from January to December 2021
- Patients were asked to filled out, children filled out with the help of their parents
- 9 questions frequency of the symptoms: abdominal pain, bloating, flatulence, reflux (burning in the chest), constipation (difficulty emptying) occurrence of fatty stool, impact on the physical activity and feelings related to the abdominal symptoms (shame, frustration, restlessness, irritability, fatigue)
- 3 point response scale used for scoring (never, sometimes, often)
- Type of the stool evaluated according to the Bristol Stool Chart

Heaton, K W & Lewis. Stool form scale as a useful guide to intestinal transit time. Scandinavian Journal of Gastroenterology, 1997;32(9): 920 - 4

### **Results**

**Patient characteristics** 

- Median age of the patients was 22.56 years (range: 7-44 years) 53% male
- 88.23% of the patients had at least one F508del mutation
- Mean BMI was 20.29 kg/m<sup>2</sup> (range: 13.0-30.8 kg/m<sup>2</sup>)
- Median FEV1 72.5% (range: 21-127%)

## **Questionnaire results**





### Conclusion

- Common GI symptoms among patients in our Centre are abdominal pain, bloating and flatulence
- Generally they have influence on the emotional wellbeing of the patients, but not on their physical activity
- Questionnaires reflect the patient's perspective and include meaningful clinical indicators
- Outpatient psychological support is needed to improve the quality of life of CF patients



