

The impact and length of stay of inpatients with complex functional gastrointestinal disorders

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Aims and Background

- Patients with complex functional gastrointestinal (GI) disorders regularly present to hospital, and often have restricted eating patterns that require admission. Their symptomology appears organic in nature and this often leads to a multitude of different investigations which risks causing harm.
- There is a strong association between physical GI symptoms and psychological health and having a more holistic approach with a greater focus on mental health could improve patient care and resource allocation (1).

Aim of this pilot study was to review the resource impact and length of admissions over 2021 of a cohort of patients with complex functional GI disorders.

Results

- Median age: 30 (17-62) with a female: male ratio of 14 : 3
- 16 out of 17 had at least one psychiatric diagnosis
 - Most common psychiatric diagnosis was depression (41%)
 - The second most common were anxiety (18%) and emotionally unstable personality disorder (18%)
 - 29% had 2 psychiatric diagnoses
 - 18% had 3 or more psychiatric diagnoses
- There was a wide variety of diagnoses for functional GI disorders (figure 1)
- Total number of A&E attendances was 87 (figure 2) of which 79% led to an admission

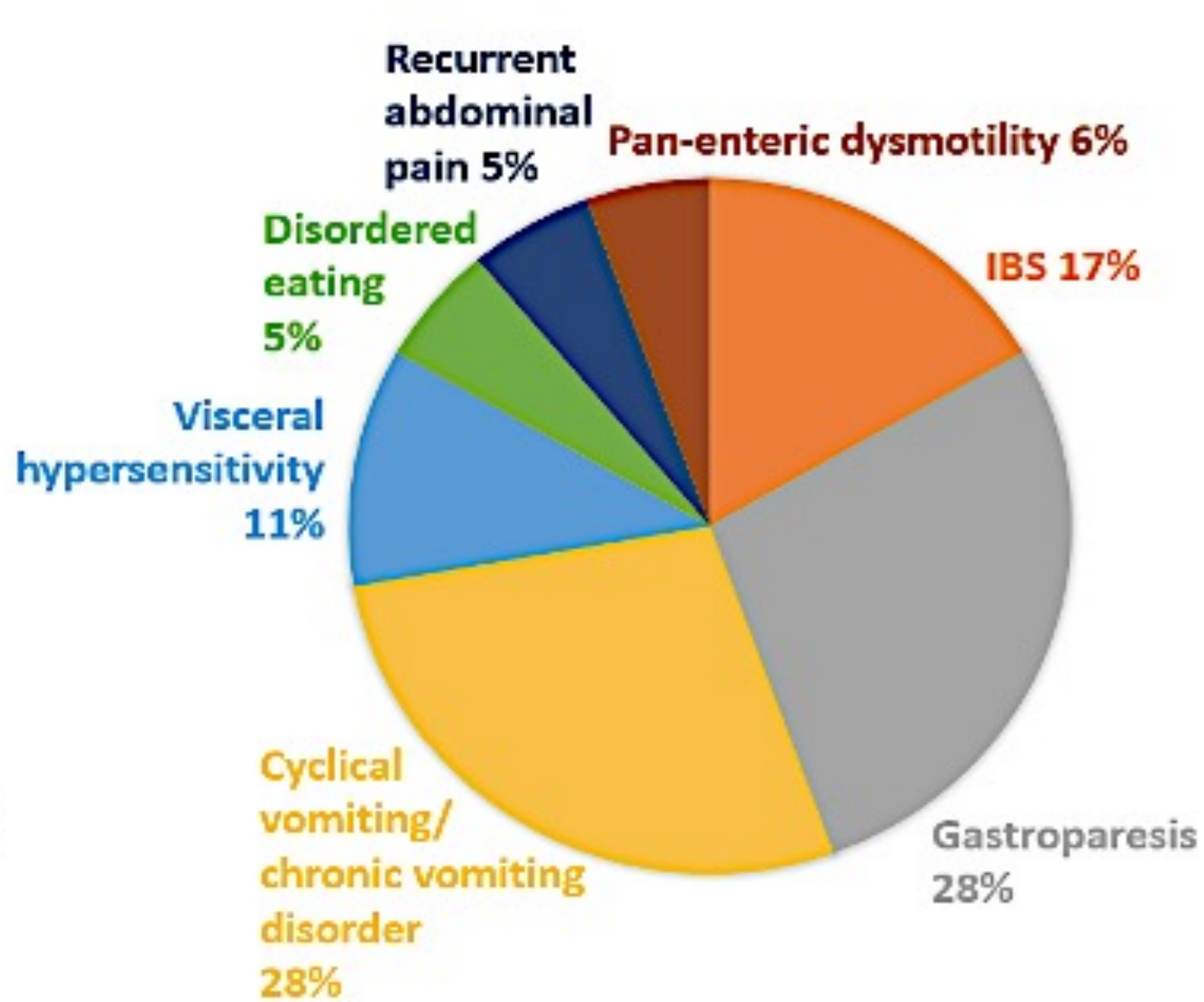


Figure 1: Different terminology used to describe functional GI disorders

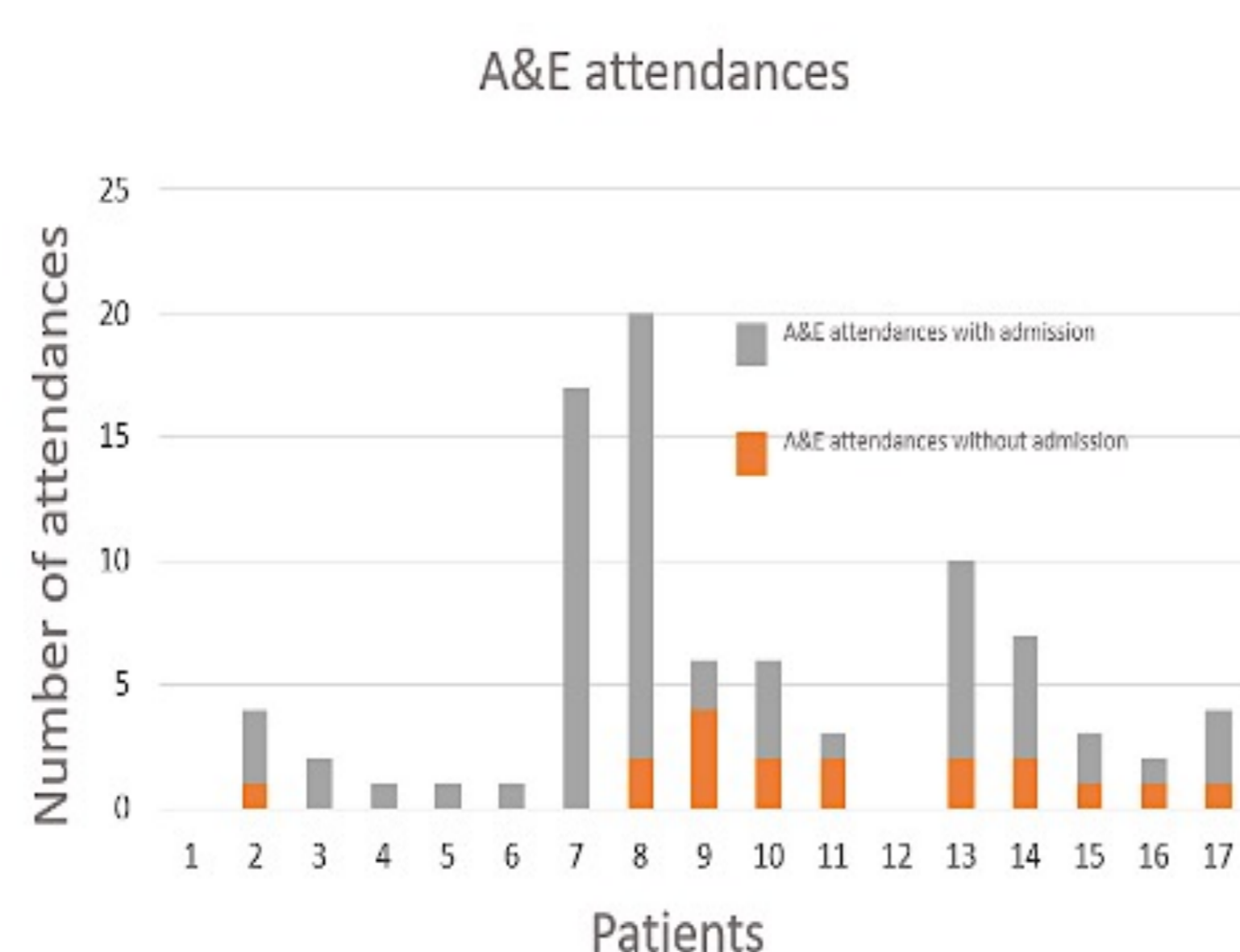
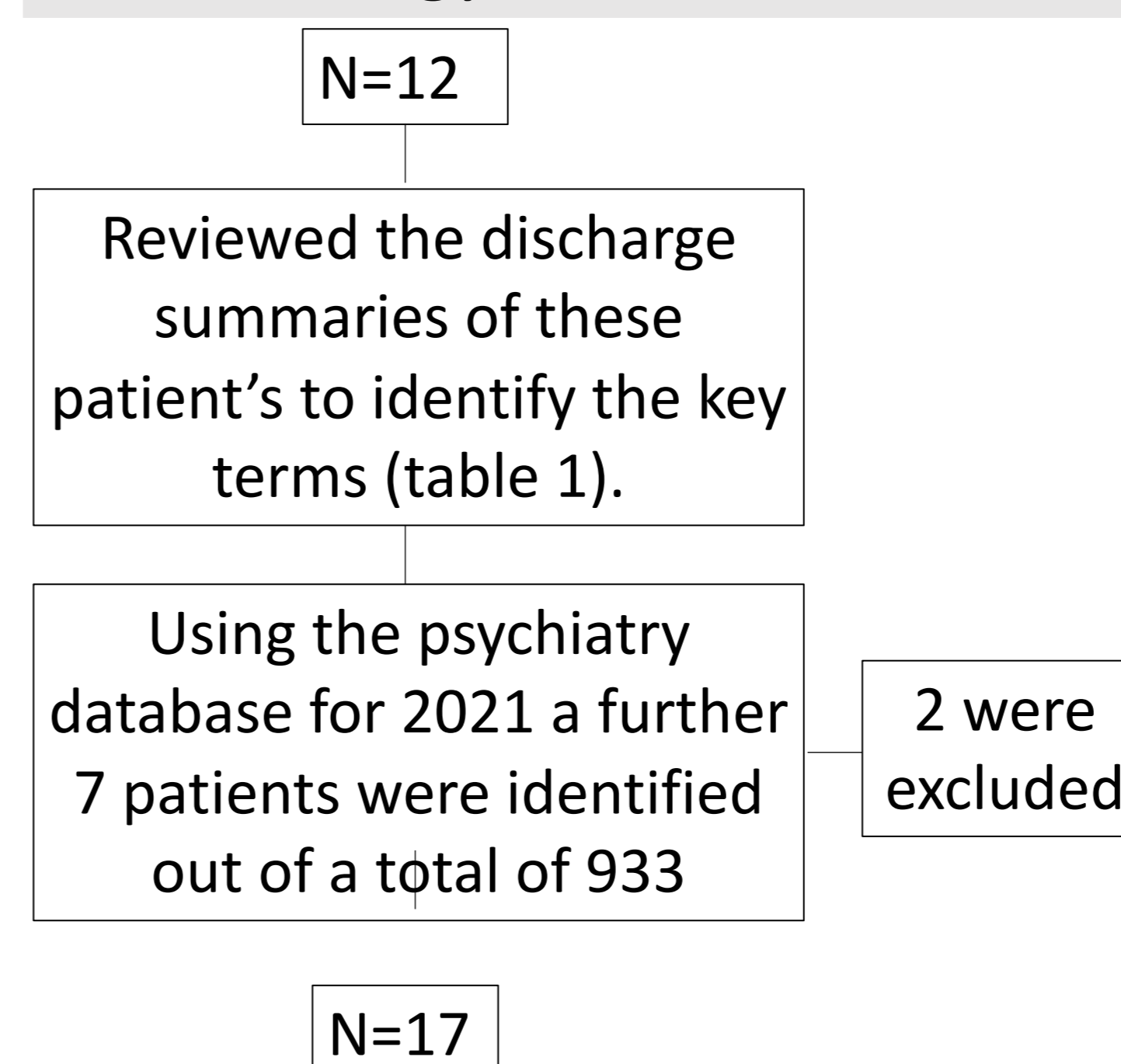


Figure 2: Number of A&E attendances and subsequent admissions over 2021

- Based upon the average costs of A&E attendances (2) and hospital admissions (3) in the UK
 - The estimated cost of A&E attendances for this cohort of patients was: £1,386 - £6,642
 - The cumulative number of days this cohort were admitted was 404 days (figure 3)
 - The estimated financial impact of hospital admissions was £322,796
- Total number of investigations was 87, with the estimated cost adding up to £19,400, with a wide range of different investigations (figure 4)
- Overall the estimated financial impact for A&E attendances, hospital admissions and investigations was between £343,582 - £348,658
- 35% of this group self-discharged against medical advice at least once

Methodology



- Two patients were excluded. One had anorexia nervosa and the other patient had a previous roux en y procedure which led to his reduced appetite, and therefore these were not deemed as functional GI disorders.
- This subsequently left a sample of size of 17 in which their hospital admissions over 2021 were analysed.

Table 1: Key clinical terms associated with functional GI disorders

Functional GI disorders	Avoidant/restrictive food intake disorder(ARFID)
Anorexia	Gastroparesis
Visceral hypersensitivity	Cyclical Vomiting
Weight loss	NG/NJ/PEG Feeding
Pan-enteric dysmotility	Dysautonomia
Colonic transit study	Gastric electrical stimulator
Chronic vomiting disorder/syndrome	Persistent vomiting
Delayed gastric emptying	Bacterial dysbiosis
Functional dyspepsia	Disordered eating
Gastric pacemaker	Reduced appetite

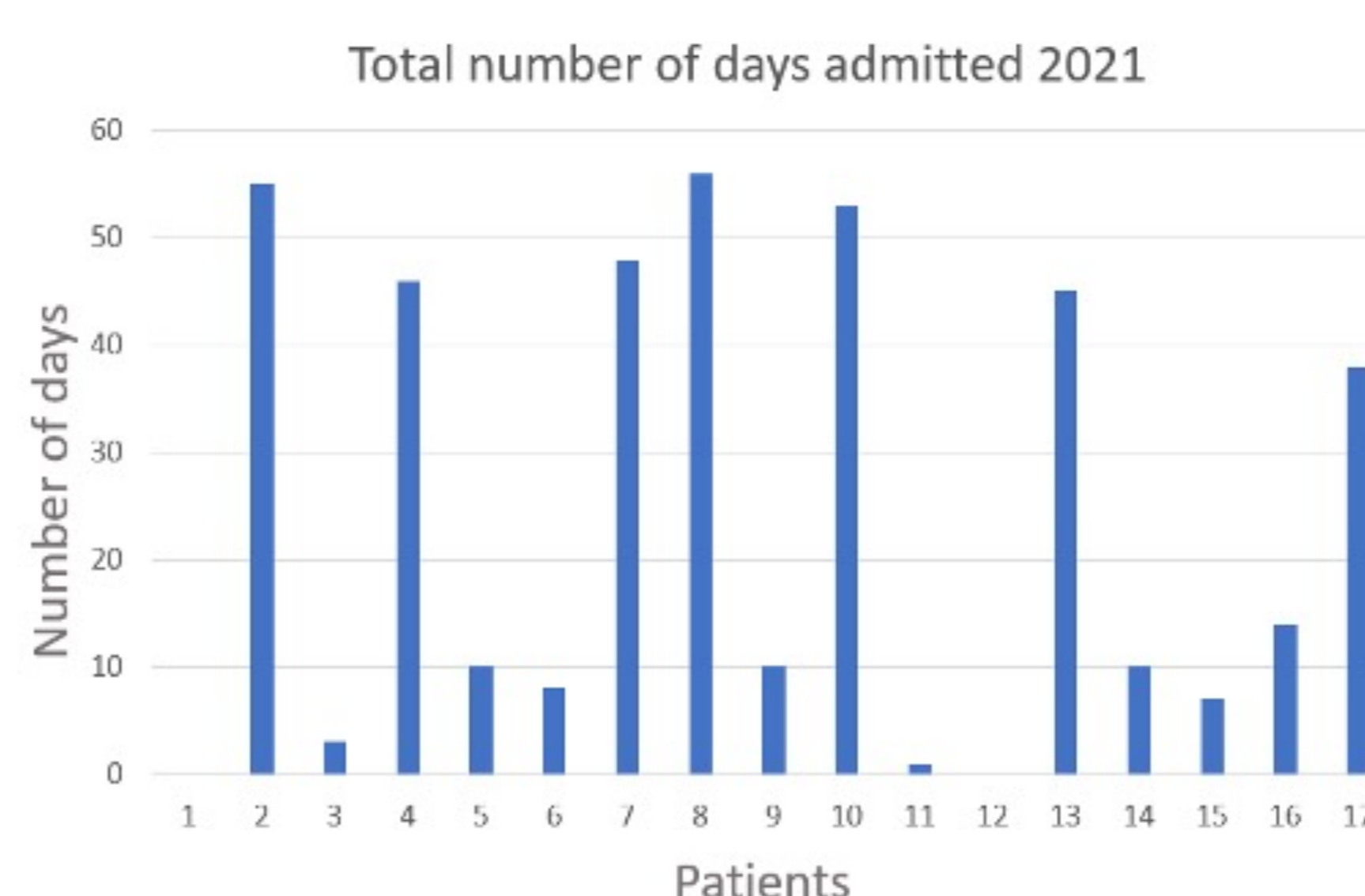


Figure 3: Total number of days admitted as inpatients over 2021

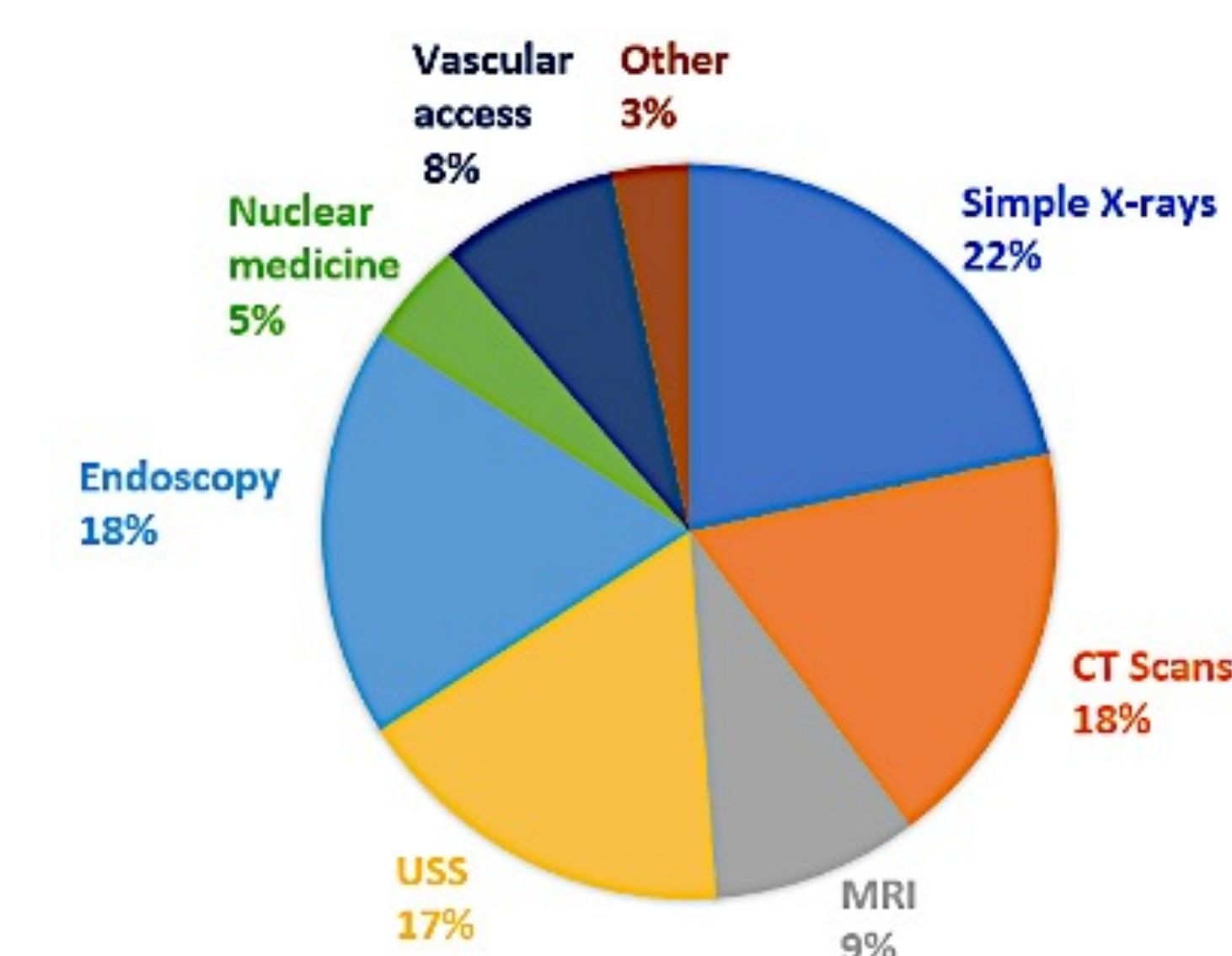


Figure 4: Variety of different investigations over 2021

Discussion and conclusions

- The high rate of self-discharges and significant number of admissions and investigations highlights our management of patients with functional GI disorders is suboptimal. It also supports the notion that a more holistic approach needs to be taken in both clinical assessment and management (4).
- The significant number of psychiatric co-morbidities suggests early psychiatric/psychological involvement is important, as it is still unclear whether it is a trigger or a consequence of the disorder (5).
- Psychological therapies including mindfulness, cognitive behavioural therapy and hypnotherapy have been shown to be efficacious (6, 7). However, education and good communication is also crucial to prevent patient's feeling stigmatised and help them understand their condition (5). Education programmes have also been shown to improve quality of life (8).
- The limitations of this initial pilot study include the small sample size and limited study duration, as well as selection bias. However, the initial findings suggest there is a clinical unmet need that needs to be addressed. Further study would involve using the business intelligence unit to identify further patients and study their hospital attendances over 5 years.

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