

Introduction

Anaemia is a common co-morbidity among elderly patients (>65), present in 17% of all patients and 40% in those in hospital¹. It has been shown that it is associated with increased morbidity, mortality and prolonged hospitalization in this cohort². While there are established guidelines for the investigation of Iron Deficiency Anaemia in general, the appropriate extent and yield of investigation in the frail, older population is undetermined³

Aims

To measure and compare the prevalence of Iron deficiency anaemia in a cohort of Frail (FP) and Non-Frail (NFP) inpatients in an acute Level 3 Hospital. To then measure and compare the extent to which the anaemia is investigated, aetiology diagnosed and degree of haemoglobin correction.

Methods

Using the digital Comprehensive Geriatric Assessment database, all Frail (Clinical Frailty Score >4) and Non-Frail (CFS <5) inpatients assessed from June 2019-August 2020 were identified retrospectively. The digital laboratory database was used to identify those with iron deficiency and anaemia. The extent to which they were investigated and diagnosed with an aetiology was assessed using laboratory, radiological and endoscopic electronic records. A comparison of the prevalence of anaemia, iron deficiency, extent of investigation and diagnostic yield was made.

Patient Characteristics

	Frail	Non-Frail	p value
Total (%)	409 (77.8)	117 (22.2)	<0.01
Female	58.9%	53.0%	0.29
Age (median)	84.3	81	<0.01
4AT <1	31.4%	63.7%	<0.01
MUST <2	62.6%	74.5%	0.02
Falls <1	37.7%	45.3%	0.14

Results

Fig. 1

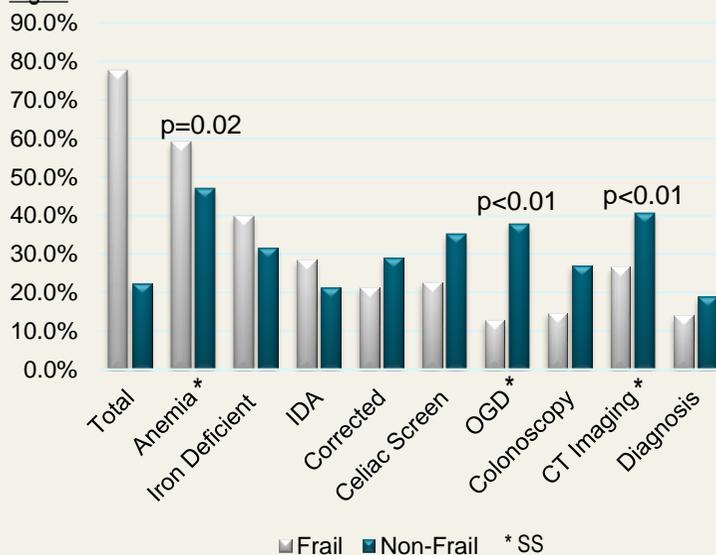
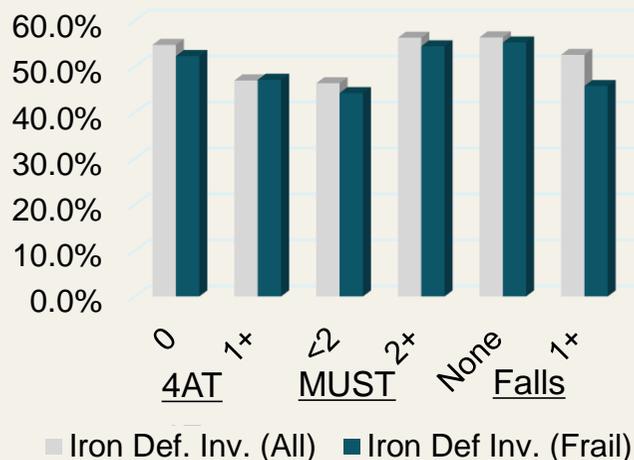


Fig. 2



Results

526 patients were assessed in the study period. 409 (77.8%) met Frailty criteria (Table 1). Fig. 1 shows there was a significantly higher prevalence of anaemia in FP compared to NFP (59.2% vs 47%, p=0.02). While there was a higher prevalence of iron deficiency in the FP (39.9% vs 31.6%), this was not significant (p=0.1). A higher, but non-significant, proportion of NFP had a correction of their anaemia within the study period (29.1% vs 21.3%, p=0.21). A significantly higher proportion of NFP with iron deficiency had an OGD (37.8% vs 12.9%, p<0.05) and CT TAP (40.5% vs 26.7%, p=0.005) performed. While a non-significant higher proportion of NFP had a Colonoscopy performed (27% vs 14.7%, p=0.07) and a celiac screen sent (35.1% vs 22.7%, p=0.11). The diagnostic yield of investigation was non-significantly higher in NFP (18.9% vs 14.1%, p=0.45). A sub-group analysis of the cohort revealed the difference in rate of investigation in total and in the frail cohort could not be accounted for by nutritional status (MUST), delirium (4AT) or physical instability (Falls) (Fig 2).

Discussion

The Frail cohort were significantly more likely to be anaemic and had a higher prevalence of iron deficiency, however they were significantly less likely to undergo recommended investigation and less likely to have their anaemia corrected. This is despite the diagnostic yield in the two groups being similar. The reason for the lower frequency of investigation is likely multifactorial but risks associated with endoscopy was likely a consideration in this cohort of patients. It has previously been shown that endoscopy is both safe and efficacious in older patients⁴. Based on this, appropriate practice for this cohort needs to be established.

References

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