Mortality in Inflammatory Bowel Disease – Crohn's Colitis Cure (CCC) Data Insights Program

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INTRODUCTION

- Inflammatory Bowel Disease (IBD) prevalence has increased worldwide, with Australia and New Zealand amongst the highest prevalence rates.
- Older literature suggests people with IBD experience higher mortality rates than the general population.[1]
- Conversely, in other studies, IBD patient survival has been shown to be like that of the general population.[2]
- It is timely to re-evaluate the impact of IBD on mortality in a contemporary patient population.

AIM

- To explore the causes and demography associated with mortality in people with IBD in a large real-world cohort

METHOD

- Crohn's Colitis Care's (CCCare) Clinical Quality Registry (CQR) is created from de-identified data flowing across from routine encounters in Australia and New Zealand. The CQR was interrogated in April 2024.
- Characteristics between deceased and non-deceased cohorts were compared.
- Inclusion: All people with IBD who have ever been clinically assessed since August 2018 were included.

Patient Characteristics	Deceased (n = 54)	Non-deceased (n = 8474)	p-value
Median Age, years (IQR)	71.5 (57.5 – 80.0)	42 (31 – 56)	< 0.001
Female, n (%)	25 (46.3)	4244 (50.8)	0.60
Country of Residence, n (%)			0.45
- Australia	45 (83.3)	6621 (78.1)	
- New Zealand	9 (16.7)	1853 (21.9)	
Diagnosis, n (%)			< 0.05
- Crohn's Disease	40 (74.1)	4673 (55.3)	
- Ulcerative colitis	12 (22.2)	3552 (42.0)	
- IBD-Unclassified	2 (3.7)	225 (2.7)	
Median duration of disease, years (IQR)	20.3 (12.7 – 32.1)	10.8 (5.5 – 18.8)	< 0.001
Endoscopic and Radiologic remission, n (%)	9 (32.1)	2416 (41.4)	0.42
Advanced therapy at last assessment, n (%)	37 (68.5)	4349 (51.3)	< 0.05

RESULTS

- Compared to the non-deceased cohort, the deceased cohort were more likely to have:
  - **A higher median age** (71.5 vs 42 years, p < 0.001).
  - **A longer duration of disease** (20.3 vs 10.8 years, p < 0.001)
  - **Crohn's disease** (74.1% vs 55.3% p < 0.05)
  - **Advanced therapy at last assessment** (68.5% vs 51.3%, p < 0.05)
  - **Been active or previous smokers** (71.8% vs 41.7%, p < 0.001)
- **Half of the deceased were aged 70-89 years (50%, n = 27).**
- There were no significant differences between the cohort's gender, country of residence, or likelihood of endoscopic and radiological remission (based on last documented investigation).
- Hypertension was the most common comorbidity documented in both groups (6.8%, n=10 vs 5.9%, n=490).
- Amongst the deceased, ischaemic heart disease (6.1%, n=9), Type 2 diabetes mellitus (5.4%, n=8), and chronic obstructive pulmonary disease (COPD) (3.4%, n=5) were the most common comorbidities.

Ten most common comorbidities Deceased (%)		Non-deceased (%)	
Hypertension	6.8	Hypertension	5.9
Ischaemic Heart Disease	6.1	GORD	3.9
Depression	5.4	Asthma	3.7
Diabetes Mellitus type II	5.4	Obesity	3.6
Asthma	3.4	Anxiety	3.5
COPD	3.4	Hyperlipidaemia	3.2
GORD	3.4	Depression	3.2
Osteoporosis	3.4	Iron Deficiency	2.6
Chronic Kidney Disease	2.7	Diabetes Mellitus type II	2.6
Airway Disease	2.0	Depression & Anxiety	2.5

CONCLUSIONS

- Although the median age of death among people with IBD was lower than the general population (median age 82), the most frequently documented comorbidities in the deceased group, such as heart disease, diabetes, COPD, and asthma, reflect the chronic diseases associated with known causes of death in Australia. The deceased cohort were also more likely to smoke.
- While initial data suggests that advances in IBD therapy have made it less likely to be a life-limiting condition; further analysis is needed to characterise the contributors to mortality in people with IBD. As this dataset grows it will enable better tracking of IBD survival to guide patient care.

References
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2. Selinger CP, Andrews J, Dent OF, Norton I, Jones B, McDonald C, et al. Cause-specific mortality and 30-year relative survival of Crohn's disease and ulcerative colitis. Inflamm Bowel Dis. 2013;19(9):1880-8.

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