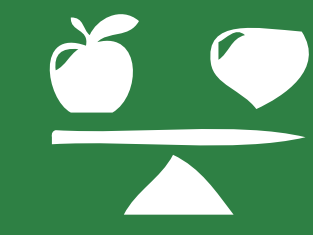




# A REALISTIC APPROACH TO DIETETIC CARE IN ACUTE MEDICAL INPATIENTS



## A RETROSPECTIVE COHORT STUDY OF SURVIVAL-RELATED OUTCOMES IN PATIENTS REFERRED TO DIETETICS

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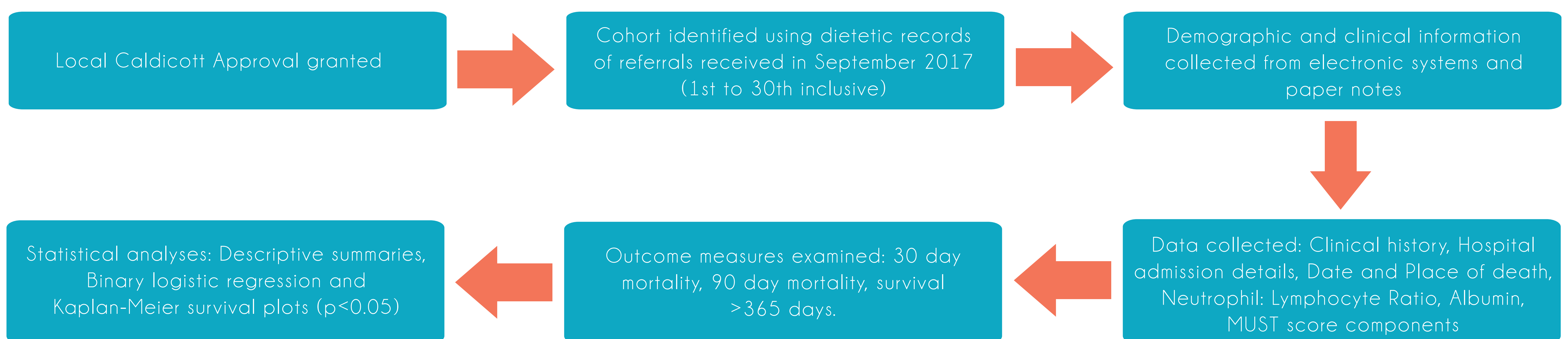
### INTRODUCTION

The Malnutrition Universal Screening Tool (MUST) was developed to detect both undernutrition and obesity in adults, regardless of ages, diagnoses and health-care settings [1]. In 2017, it was NHS Fife policy for all patients who scored 2 or more (classified as 'medium' or 'high risk') on MUST to be referred to dietetics. A total of 206 referrals were received by the department in September 2017. A snapshot audit of outcomes for this population revealed that 36% of patients did not survive past 3 months from the date of referral, suggesting that MUST is picking up a lot of people near the end-of-life.

### AIMS

1. To characterise the acute medical population referred to the dietetics department, including demographics, clinical and nutritional characteristics, clinical pathways and outcomes.
2. To determine survival-related outcomes of subgroups of the population referred to dietetics
3. To determine predictors of mortality across the whole study population using statistical analyses

### METHODOLOGY



### RESULTS

- A total of 191 patients were included in the study. 74% had a MUST score of  $\geq 2$  (medium or high risk)
- By the study censor date (30th April 2019), 115 patients (60%) had died.
- The median survival time from the date of referral was 54 days.
- 23% died  $\leq 30$  days from referral
- 36% died  $\leq 90$  days from referral
- Patients who died  $\leq 30$  days and 90 days from referral respectively are referred to as the 'Poor Prognosis' subgroup
- 48% lived  $\geq 365$  days from referral
- Patients who lived  $\geq 365$  days from referral are referred to as the 'Good Prognosis' subgroup

		Died $\leq 90$ days	Survived $\geq 365$
		Poor Prognosis (%)	Good Prognosis (%)
Age	$\geq 65$	76	46
	$< 65$	24	54
Albumin	$< 35$	56	28
	$\geq 35$	44	72
Cancer	Yes	53	15
	No	47	85

Table 1. Characteristics of the subgroups

#### Predictors of mortality across the study population

Age, albumin levels, cancer diagnosis were all risk factors for mortality in the univariate analysis (See Figure 1-3), but in the multivariate analysis, only age and hypoalbuminemia at admission were independently associated with reduced survival.

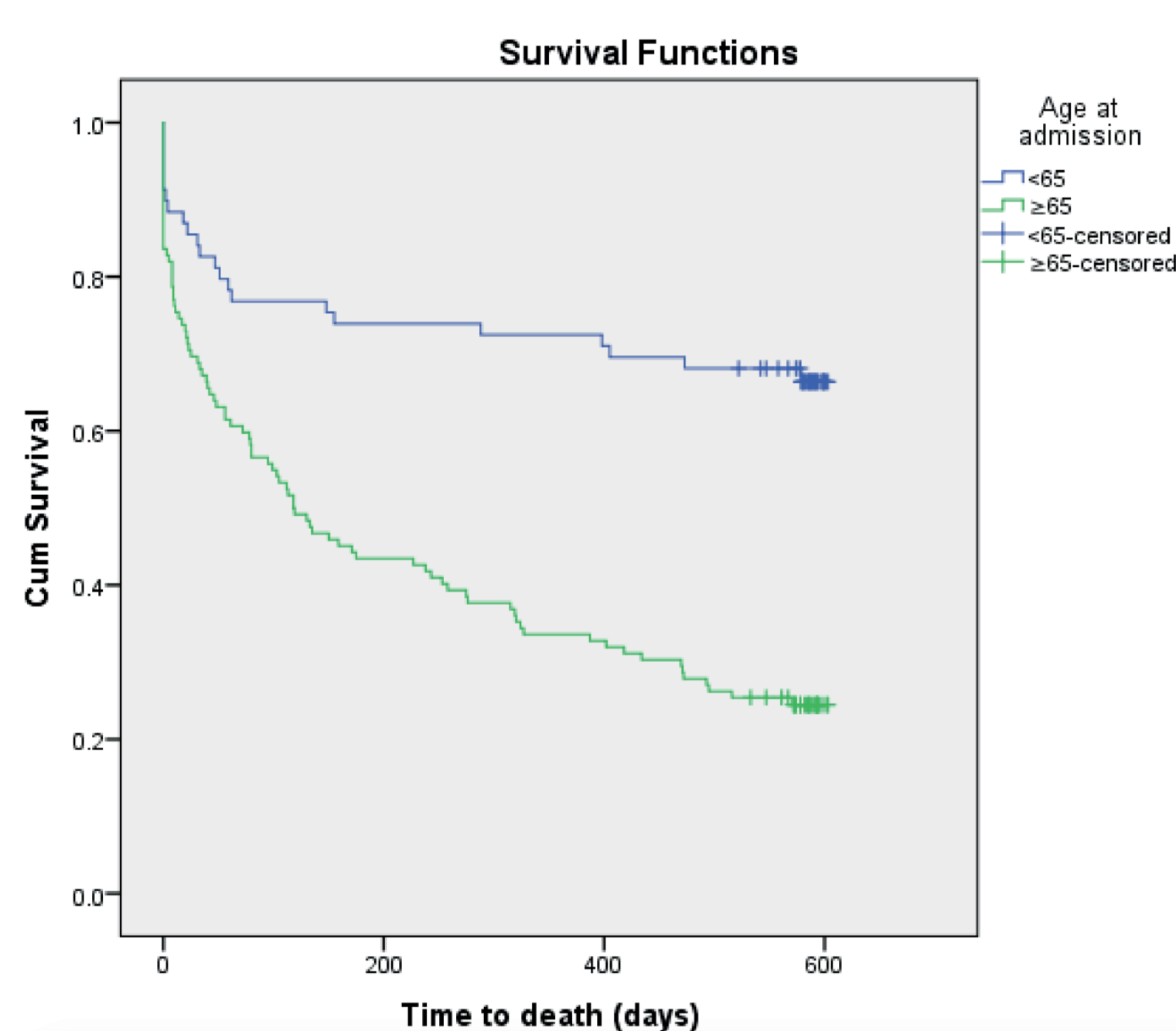


Figure 1. Survival by age at admission

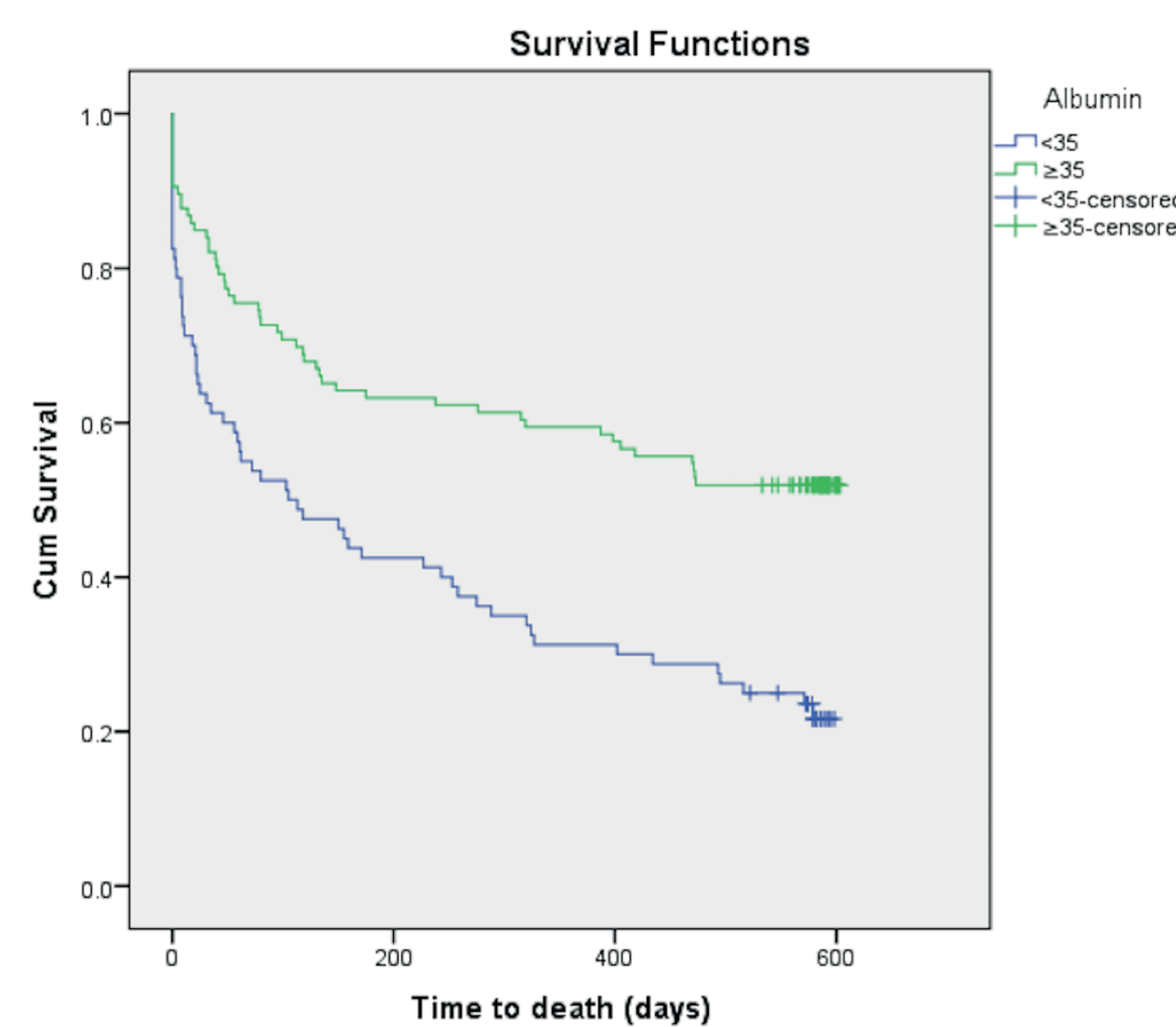


Figure 2. Survival by albumin levels

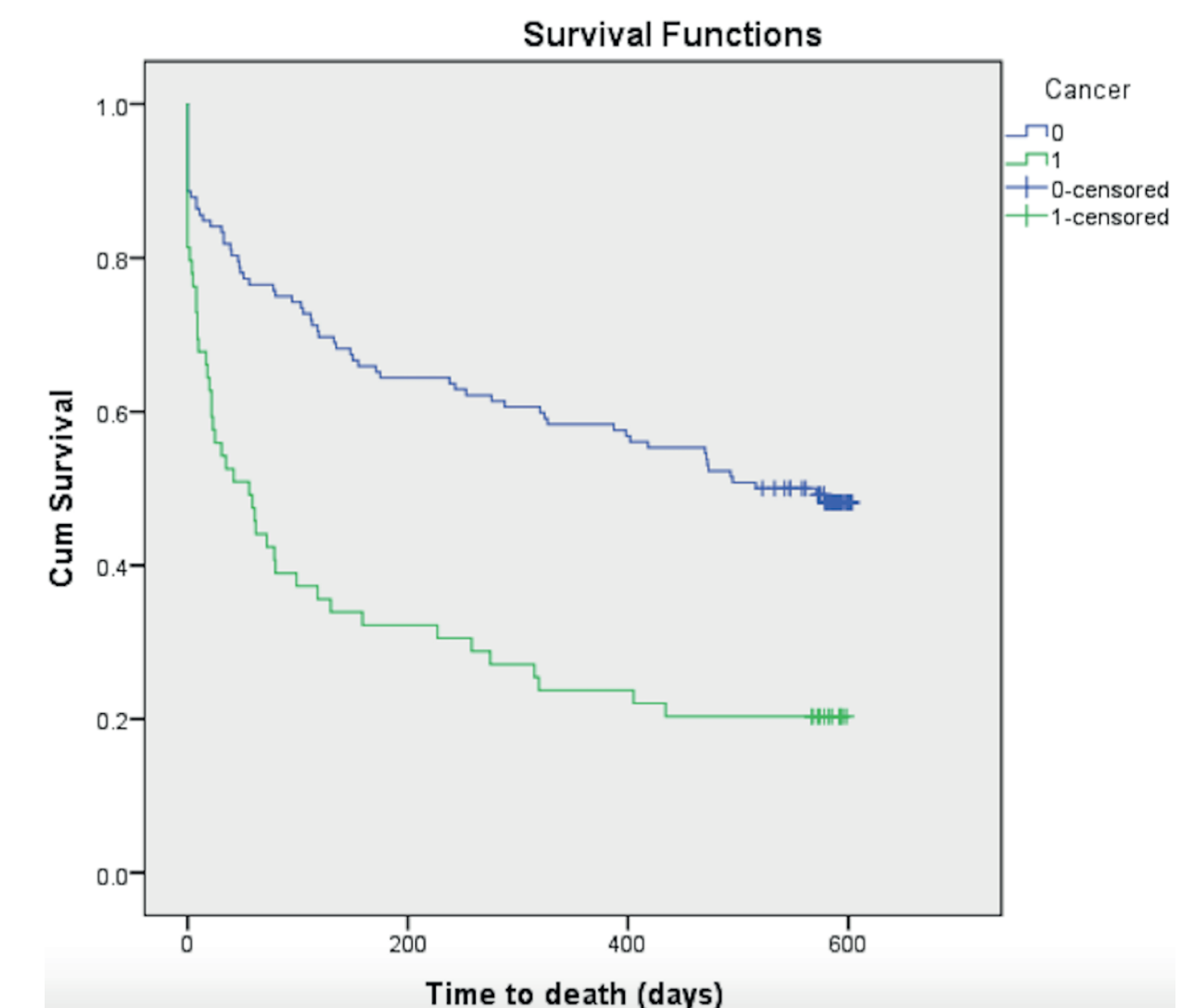


Figure 3. Survival by cancer diagnosis

### CONCLUSION

#### 1 MUST identifying people near the end-of-life

18 months following referral, 60% of patients in our study had died, with 23% dying within 30 days of referral, and 36% within 90 days. This suggests that MUST screening and wider reasons for referring to dietetics identify a proportion of people who are very near the end-of-life.

#### 2 Predictors of mortality

Age, albumin levels and cancer were significantly associated with mortality, with age and albumin levels being independent predictors. These findings are consistent with other studies showing serum albumin, older age and cancer to be prognostic markers for acute medical patients [2, 3].

#### 3 Application to practice of Realistic Medicine

For patients who are correctly identified to be in the last phase of life, artificial nutrition is rarely helpful or appropriate in such situations. Thus, a realistic approach to healthcare relies upon clinical teams recognising when their patients are nearing the end-of-life; and having honest conversations about this with patients and with teams they refer to, including dietetics.

### NEXT STEPS

Findings will be presented to the acute dietetics team in Fife as well as to a broad medical forum. Discussion to date has highlighted the need for clinicians to ask themselves what the value of dietetic intervention might be for their acute medical inpatients, appreciating that there may be value for people with both long and short survival. However, the focus of interventions in these two scenarios may vary and we need to share realistic wider goals of clinical care with dietitians to enable them to tailor their support optimally.

### REFERENCES

1. Malnutrition Advisory Group: A standing committee of BAPEN. The 'MUST' Report: Executive Summary. BAPEN, 2012, pp. 1-5, [https://www.bapen.org.uk/pdfs/must/must\\_exec\\_sum.pdf](https://www.bapen.org.uk/pdfs/must/must_exec_sum.pdf) Accessed 2 May 2019.
2. Moore, Emily et al. 'Death Within 1 Year Among Emergency Medical Admissions To Scottish Hospitals: Incident Cohort Study'. *BMJ Open*, vol 8, no. 6, 2018, p. e021432. [doi:10.1136/bmjopen-2017-021432](https://doi.org/10.1136/bmjopen-2017-021432).
3. Dolan, Ross D et al. 'The Role Of The Systemic Inflammatory Response In Predicting Outcomes In Patients With Advanced Inoperable Cancer: Systematic Review And Meta -Analysis'. *Critical Reviews In Oncology/Hematology*, vol 116, 2017, pp. 134-146. Elsevier BV. [doi:10.1016/j.critrevonc.2017.06.002](https://doi.org/10.1016/j.critrevonc.2017.06.002).