## End-stage Chronic Liver Disease;

## A Look at the Last Year of Life

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**Introduction:** Liver disease is the fifth most common cause of death in the UK<sup>1</sup>. Patients with chronic liver disease (CLD) and its complications present frequently to hospital; when their disease reaches end-stage, their supportive and palliative care needs can be high<sup>2</sup> and a recent NCEPOD review of deaths of patients with alcohol-related liver disease rated care in more than half of cases examined as "less than good"<sup>3</sup>. In this study, we describe the last year of life in patients with CLD, aiming to identify opportunities for earlier collaborative working with palliative care teams in the future.

**Methods:** We performed a comprehensive retrospective case note analysis of patients who died of CLD (or complications) in a teaching hospital over a period of 12 months (n=77). Caldicott approval was obtained.

**Results:** To illustrate some of the experiences of a patient within their last year of life, a 12 month timeline has been plotted below (Figure 1). The final admission of this patient has been closely scrutinised and further reflected in Figure 2. This particular patient was male (as were 71% of the study population) and had a diagnosis of alcohol related liver disease (shared by 84.4% of patients who died). He was 47 years of age when diagnosed, and died aged 48 (median survival from diagnosis to death was 2 years, range 0-13 years). He was admitted to hospital 10 times in the last year of his life (median range in this cohort = 1-17 admissions), though many patients (31%) died on their first presentation to hospital with CLD. Despite frequent attendances to hospital, and features of advanced disease associated with a poor prognosis, discussions about ceilings of treatment did not occur until the last 24 hours of life, and despite documented symptoms, he was not referred to the hospital palliative care team. Only 19% of the patients in this study were referred to palliative care with a median time between referral and death of 6.5 days (range 1-120 days).

Admission 1 (3 days)	Admi	Admission 3 (7 days)				Admiss	Admission 7 (5 days)		Admission 9 (4 days			s) Admission 10 (2 day			ys)	
Presenting complaint PC: alcohol withdrawal/pain					PC: upper GI bleed PC: hypoglycaen					aemia	PC: pneumonia					
(PC): alcohol withdrawal secondary to chronic pancreatitis					Admiss	Admission 5 (6 days)										
GastroenterologyGastroenterologyclinic (attended)clinic (attended)								Gastroenterology clinic (did not attend)								
clinic (attended)	clinic (allended)						<b>u</b>				A&E	E – ches	st pain			
October November	December J	anuary Fe	ebruary	March	ר A	pril	May	Jun	е	July	Augus	st Se	ptembe	r Octol	ber	
													Fi	gure 1 – L	ast	
A&E - hypogly	ycaemia A&E -	- abdominal p	ain ↓				<b>8A</b>	E - hypc	oglycaen		<b>\&amp;E</b> – abd	ominal	<b>pain</b> 12	months o	of life	
Admission 2 (1 day)	<b>4 (12 days</b> )		Admission 6 (2 days) Admission 8 (5 days)						A&E	A&E - vomiting in admissions						
PC: hyperglycaemia	PC: upper	GI bleed		PC: upper GI bleed PC: abdominal pain												
							NACPR fo t 24 hours		ace. Ho\	wever 38			ion with f R form s			
A&E	_	Medical C	onsultant		U consu											
PC: chest/abdominal pain Referred to surgeons (diabetes) post				Re Prognosis poor All active HDLL MHDU consultant												
	m	measures should be pursued, however family to attend urge														
Medical registrar medical HDU" ITU admission not in pt's interest." Tamily to attend to at												arrest. I				
bloods Transferred t	o medical unit	bloods			chest x-	ray bl	ods		b	loods ↑	ches	st x-ray	bloo	ds		
02 04 06 08	<b>10 12</b>	14 16	18 20	22	00 0	02 04	06	08 10	0 12	14	16 1	8 2	0 22	00	02	
chest x-ray	↓ entral	line		bloc	ods		↓ arterial li	ne	bloods							
Surgical CT2 ?perforation Medical SHO Clerk-in "frail and unwell"							stroenterology consul						Medical registrar: "complex tachycardia on monitoring. I			
<ul><li>?perforation</li><li>CT abdomen requested</li></ul>		answer		"main issue is sepsis					-		neans the					
C l'abdomentrequested questions. Fatigu Plan: ITU r/v, nas						hazardo	UGIB. OGD currently hazardous"			VVIISAItaiiti			point of terminal decline,			
Figure 2 – Last admission		erial line							amiodarone seems futile but							



## 70% (54) of patients had bloods taken within the last 24 hours of life.

family: likely dying Plan: amiodarone/keep comfortable"

won't harm the patient. D/W

**Conclusion:** We were able to perform a detailed examination of the hospital admissions of this cohort of patients during the last year of life. Interestingly, all patients met SPICT<sup>TM</sup> criteria<sup>4</sup> and only a minority were referred to the palliative care team. It is possible that earlier referral to specialist palliative care services may have supported gastroenterology teams with discussions with patients and their carers about future care, and when it was clearer that patients may have been entering the final phase of their illness, may potentially have prevented unnecessary investigations and interventions in the last few days of life. In our opinion, this data highlights the need for greater collaboration between gastroenterology/hepatology and palliative care to both optimise organ function and help patients live as well as possible while preparing them for the reality of a poor prognosis.

## **References:**

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O2, central line, arterial line