

Medical comorbidity and projected survival in patients admitted to an addictions inpatient unit

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Introduction

It is well established that there are a wide range of social, psychological and physical harms associated with chronic substance misuse [1]. It is also clear that for people with mental illness, substance misuse serves as an independent risk factor for physical illness [2]. Specialist drug and alcohol treatment providers located within psychiatric services are uniquely placed to deal with this complex population.

Methods

This was a cross-sectional survey of all admissions over a six-month period (26 May, 2014 to 27 November, 2014) to a specialist inpatient assessment and detoxification unit in a large psychiatric hospital in Edinburgh. In total, data for 175 admissions was collected. A subset of data routinely collected as part of the medical clerk-in was used to record the presence of medical comorbidity.

In order to standardise the recording and analysis of medical diagnoses, the **Charlson Comorbidity Index (CCI)**, a cumulative disease burden index, was used [3]. The index records 16 diagnoses that have predictive value when calculating projected survival.

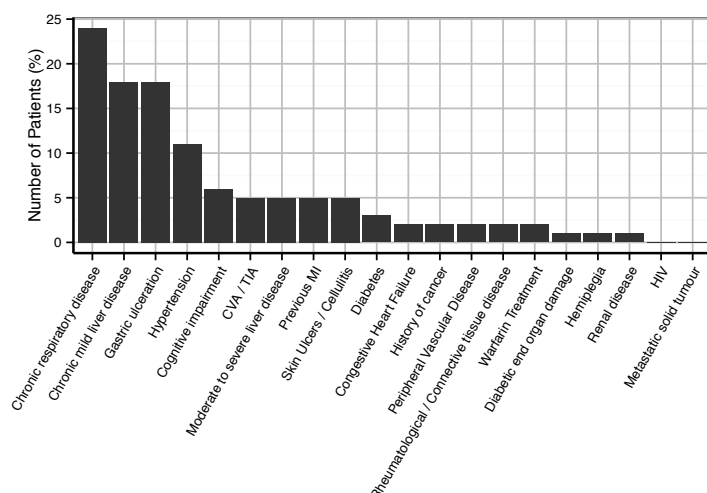
The Index has been used across a broad range of clinical settings and populations, and is considered valid and reliable for estimating the burden of medical comorbidity in clinical research [4]. The ultimate output of this index is a predicted probability of survival at ten years.

Results

Population Characteristics:

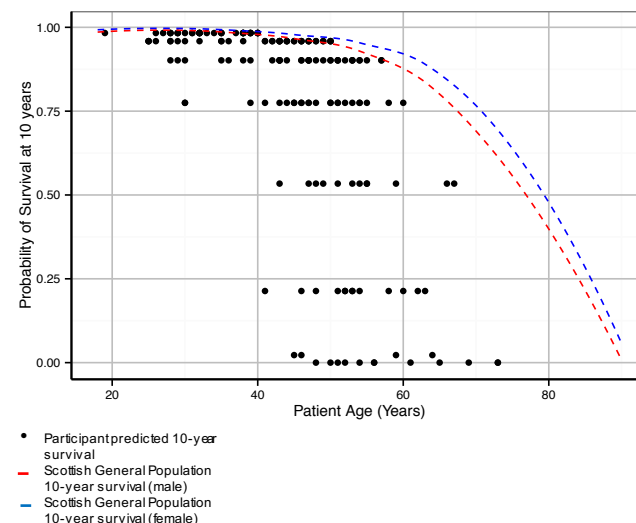
Age, mean (range)	44	(19 - 73)
Male, n (%)	111	(63.4)
Female, n (%)	64	(36.6)
Purpose of Admission, n (%)		
Alcohol detoxification	139	(79.4)
Buprenorphine conversion	18	(10.3)
Opiate detoxification	9	(4)
Benzodiazepine detoxification	3	(1.7)
Cognitive assessment	2	(1.1)
Respite	2	(1.1)
NPS detoxification	2	(1.1)
Substance Misuse Diagnosis, n (%)		
Alcohol dependence	151	(86.3)
Opioid dependence	46	(26.3)
Benzodiazepine dependence	31	(17.7)
NPS harmful use	6	(3.4)
Kratom harmful use	1	(1.1)
Cannabis harmful use	1	(1.1)
Comorbid psychiatric diagnosis, n (%)	107	(61.1)
Comorbid chronic pain, n (%)	37	(21.1)
Smoker, n (%)	137	(78.3)

Physical Comorbidity by Diagnosis:



The majority of patients had a predicted ten-year survival of greater than 75%. However, of the 29 (16.6%) patients with a less than 50% chance of survival at ten years, a large number (55.2%) were aged 55 or less, and two of these were aged 45 or less. A single patient aged between 36 and 45 had a predicted survival at ten years of less than 20%.

Cohort Predicted Survival at 10 years vs. Scottish General Population:



Discussion

Harmful use of alcohol is classically associated with gastrointestinal disease, cardiovascular disease and neurological damage. However, the most common physical illness recorded in this patient group was chronic respiratory disease. In excess of 75% of sample were current smokers. There is some evidence that providing concurrent smoking cessation treatment during both out- and inpatient alcohol detoxification may be more beneficial than delaying [5,6].

There is an established association between opioid dependence and infection with blood born viruses [7]. Despite the significant number of patients with opioid dependence, the data presented here showed no patients who were diagnosed with HIV. Screening for blood borne viruses is however routinely offered to all patients admitted, given that hepatitis C remains an important and potentially treatable cause of cirrhosis and liver cancer, along with alcohol and metabolic syndrome due to obesity [8].

The high number of patients seen here with chronic pain is consistent with previously published research [9]. There is evidence that physical pain may predict lapse to heavy drinking, both before and after treatment [10], which may merit further investigation in this high risk population.

Conclusions

We showed that patients receiving inpatient treatment for substance misuse carry a high burden of physical illness. Whilst a general medical setting is equipped to provide limited, usually opportunistic, detoxification for patients with a high burden of physical comorbidity, they are not usually able to offer planned, evidence-based treatment for patients with a range of substance misuse disorders. In planning and providing for substance misuse treatment services, our data would suggest that inpatient units with active medical input, resident medical cover and effective liaison with general medical hospitals continue to address a significant need.

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