

Diabetes and opiate replacement therapy (ORT). A retrospective cohort study of healthcare usage and clinical outcomes.

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Introduction

- People with problem drug use often exhibit high risk health behaviours and have poor engagement with healthcare services^{1,2}.
- Diabetes is a common comorbidity in this population and has the potential to cause excess complications and mortality.
- This study aimed to investigate the hypothesis that people with problem drug use and diabetes engage less with services and have worse outcomes compared to people with diabetes but no evidence of problem drug use.

Results

- 393 people (median(IQR) age: 41.0 (35.9-46.1); male=64%) on ORT, and a matched cohort of equal size were included for analysis.
- 5 patients had no diabetes duration data, so were excluded from all analysis except for mortality.
- Primary and secondary outcomes are displayed in table 1.
- The ORT cohort were offered more diabetes clinic review appointments per year than the control cohort, but offered less retinal screening appointments.
- Non-attendance at diabetes clinics and retinal screening services was higher in ORT cohort compared to controls.
- Unscheduled hospital attendance rate/year was higher in the ORT cohort compared to controls.
- HbA1c levels showed no significant difference, however the number of HbA1c measures per year were significantly lower in the ORT cohort compared to controls.
- 5-year all-cause mortality was significantly increased in ORT cohort. A five-year survival analysis plot is displayed in figure 1

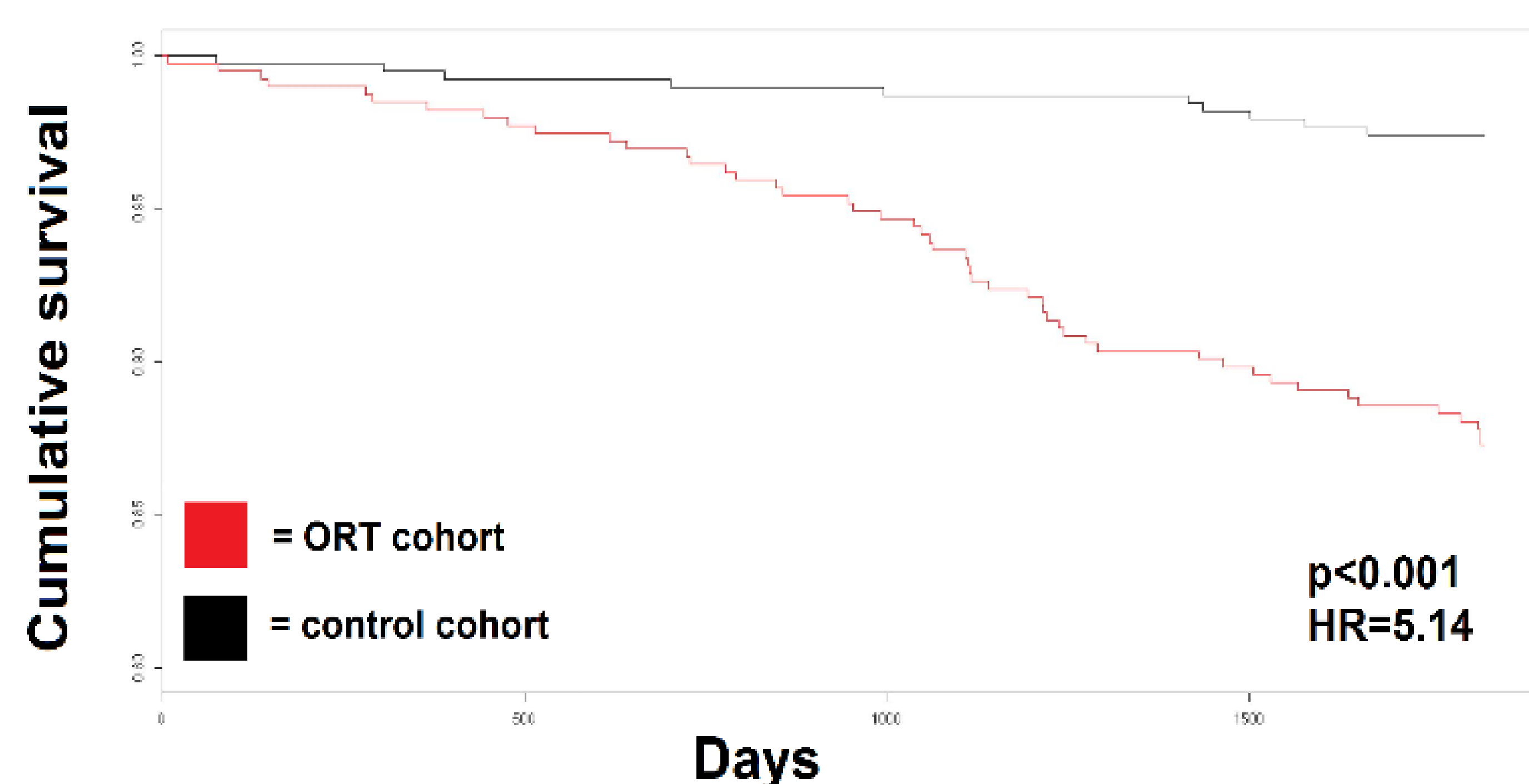


Figure 1: 5 year all-cause mortality comparing ORT and control cohorts.

References

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Methods

- All adults in receipt of a methadone or buprenorphine-based opiate replacement therapy (ORT) prescription between 2011 and 2016 in NHS Greater Glasgow and Clyde, and also appearing in the national diabetes database were included.
- A control cohort (matched for age, gender and diabetes duration) was identified from patients who appeared in the diabetes database but had no evidence of ORT use in the defined period.
- Statistical analysis comparing the two cohorts was carried out.

	ORT cohort (n = 388)	Control cohort (n = 388)	p-value
Diabetes mellitus clinic attendance, median(IQR)			
Appointments made (rate/year)	0.00 (0.00-1.13)	0.00 (0.00-0.60)	<0.01
Proportion of appointments not attended	0.53 (0.33-0.83)	0.17 (0.00-0.50)	<0.001
Retinal screen, median(IQR)			
Appointments made (rate/year)	2.00 (1.00-2.20)	2.00 (1.60-2.40)	<0.001
Proportion of appointments not attended	0.33 (0.00-0.80)	0.00 (0.00-0.20)	<0.001
Admissions, median(IQR)			
Unscheduled admissions (rate/year)	0.60 (0.00-1.64)	0.00 (0.00-0.52)	<0.001
Time spent in hospital (days/year)	0.60 (0.00-3.60)	0.00 (0.00-0.40)	<0.001
HbA1c, median(IQR)			
Last HbA1c prior to 1/1/16 (mmol/mol)	62.40 (43.0-91.4)	61.8 (48.1-84.0)	0.47
Number of HbA1c measures (rate/year)	1.20 (0.40-2.00)	1.60 (0.80-2.50)	<0.001
Mortality, n	53	12	--

Table 1: Comparing engagement (primary outcome), outcomes and mortality between case and control cohorts.

Discussion

- People with diabetes and problem drug use were found to engage less with scheduled diabetes services and have more unscheduled care attendances, potentially resulting in increased healthcare costs.
- HbA1c levels are measured less frequently in ORT patients compared to controls, but levels of glycaemic control showed no significant difference, possibly due to acquisition bias. This suggests that better diabetic control in problem drug users is possible when there is evidence of engagement with services.
- Mortality in the ORT group was significantly higher than in patients with diabetes alone.
- This cohort's regular attendance at ORT treatment and care clinics³ presents a potential opportunity for better and more consistent diabetes management.