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Excess Mortality of Patients Admitted to Medium Secure Care: Findings from the ALACRITY Study

Dr Martin Clarke¹, Ms Jodie Westhead^{1,2}, Dr Lucy McCarthy¹,

Dr Ruth Hatcher², & Dr Simon Gibbon¹

¹Nottinghamshire Healthcare NHS Foundation Trust, ²University of Leicester

INTRODUCTION

The Arnold Lodge Admissions Cohort: Reconviction and Intervening Treatment (ALACRITY) study examined the outcomes of a cohort of 909 first admissions to Arnold Lodge Medium Secure Unit (MSU) between July 1983 and June 2013.

Arnold Lodge is a Medium Secure Psychiatric Hospital in Leicester, United Kingdom. It provides care for men and women with mental illness and/or personality disorder.

METHODOLOGY

The Arnold Lodge cohort comprises 909 patients: 771 (85%) men and 138 (15%) women admitted between 1983 and 2013.

We obtained support under Section 251 of the NHS Act 2006 to use confidential patient information without their consent. This enabled us to collect data on the entire cohort.

Mortality data were obtained from NHS Digital, the Office for National Statistics (ONS) and supplemented with information from case files.

We calculated Standardised Mortality Ratios (SMR), the risk of death compared to the general population.

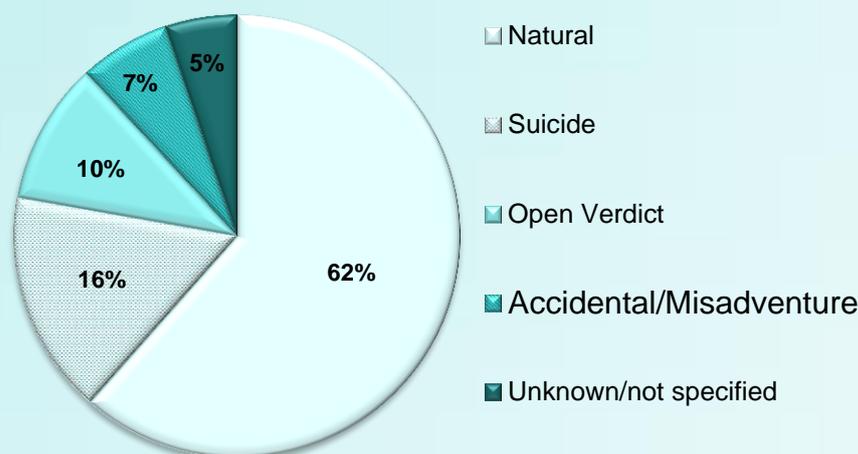
This was done by dividing the number of observed deaths by the number of expected deaths (for the population of England and Wales, obtained from ONS) and multiplying by 100.

We calculated the number of expected deaths by using the Person Years at Risk method.

RESULTS

- 135 patients died prior to the 30th of June 2013 census date (14.9%).
- The mean age at death was 48.4 years (SD = 12.4).
- For those patients that died, the median time from discharge to death was 11.3 years (IQR 4.8 – 18.0 years).
- The cause of death is shown in Figure 1.

Figure 1: Causes of death (n = 135)



- 83 patients died from natural causes – more information is shown in Table 1.
- The SMRs indicated the risk of death from any cause, natural causes or suicide were 5.6 times greater, 4.0 times greater, and 22.4 times greater respectively, than that expected in the general population (see Table 2).

Table 1: Number of patient deaths from natural causes (n = 83)

Natural cause of death	n	%
Cardiovascular	32	38.6
Respiratory	19	22.9
Cancer	14	16.9
Drug/alcohol related*	11	13.3
Other	7	8.4

Table 2: SMRs for the cohort

	ObD	ExD	SMR	95% CI
Natural	83	20.5	404	322 – 501
Suicide/open	36	1.6	2243	1571 – 3105
Total	135	24.1	561	470 – 664

* = primary cause of death but not suicide or open verdict

ObD = Observed deaths, ExD = Expected deaths

DISCUSSION

- Patients discharged from medium secure care are at greatly increased risk of premature death compared with the general population. The majority of deaths following discharge were due to natural causes; with deaths from cardiovascular and respiratory causes and cancer being the most common.
- Death due to suicide was also significantly increased compared to the general population.
- Our results are in keeping with previous studies showing the excess mortality of those with mental disorder¹ and also with the original follow-up study of patients discharged from Arnold Lodge.^{2,3}

CONCLUSION

- Our findings highlight the need for long-term support and monitoring of the physical and mental health of this group in order to improve their health outcomes.

References:

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