

**HRB Centre for Primary Care Research
Research Briefs**

***Methadone Substitution Treatment
in Primary Care and Risk of Mortality
- a national cohort study***



Opiate users have a high risk of premature mortality and the risk of death seems to vary over the course of treatment.

A study, led by Dr. Gráinne Cousins (School of Pharmacy, RCSI), in conjunction with researchers at the HRB Centre for Primary Care, assessed whether risk of death increases during periods of treatment transition, and the impact of supervised methadone consumption on drug-related and all-cause mortality in Ireland between 2004 and 2010.

A total of 6983 patients on a national methadone treatment register, aged 16–65 years, were included in the study. In order to conduct the study, multiple data sets were obtained from various data controllers and linked. This was the first time this type of linkage was done in Ireland and this study addresses limitations identified in a recent external review of methadone services in Ireland, which concluded that Ireland is lacking a systematic approach of data linkage that is essential to determine the quality of care delivered to drug users in treatment.

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**HRB CENTRE FOR
PRIMARY CARE RESEARCH**



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This study, a retrospective cohort study, involved linking the following routine datasets:

1. Central Treatment List (register of all methadone patients in Ireland)
2. Health Service Executive (HSE) Methadone Treatment Scheme (national pharmacy methadone claims database)
3. HSE Primary Care Reimbursement Scheme (national pharmacy claims database)
4. HRB National Drug Related Death Index (a census of drug-related deaths and deaths among drug users)

A model for dataset linkage was approved by the deputy data commissioner. The linkage, conducted by Dr. Fiona Boland and Brenda Courtney, was extremely challenging, given the quality and differences in the data sets, and took several months to complete. However, despite the challenges obtaining and linking the data, all data sets were successfully linked.

The study found that of the 6983 patients included in the analysis there were 213 deaths [1]. More than one-third of the 213 deaths were drug-related, with the risk of mortality increasing following treatment cessation, particularly in the first four weeks post-treatment.

A history of co-prescription of benzodiazepines (71%) was also extremely high, consistent with a recent Scottish study [2]. While co-prescribing benzodiazepines may reflect a true need for treatment for anxiety disorders among patients in methadone treatment, it may also indicate benzodiazepine abuse among our cohort or maintenance for benzodiazepine dependence. Toxicological reports identified benzodiazepines as present in more than three-quarters of all drug-related deaths.

This study shows that among primary care patients undergoing methadone treatment, continuing in methadone treatment is associated with a reduced risk of death.

The articles can be viewed at:

[1] Cousins G, Boland F, Courtney B, Barry J, Lyons S and Fahey T. (2015). Risk of mortality on and off methadone substitution treatment in primary care: a national cohort study. *Addiction*. DOI:10.1111/add.13087.

<http://onlinelibrary.wiley.com/doi/10.1111/add.13087/epdf>

[2] McCowan C, Kidd B and Fahey T. (2009). Factors associated with mortality in Scottish patients receiving methadone in primary care: retrospective cohort study. *BMJ*; 338: b2225. DOI: <http://dx.doi.org/10.1136/bmj.b2225>

<http://www.bmj.com/content/338/bmj.b2225.full.pdf+html>