The impact of opiate substitution treatment on mortality risk in drug addicts: a natural experiment study

Colin D Steer,[1]* John Macleod,[1] Kate Tilling,[1] Aaron G Lim,[1] John Marsden,[2] Tim Millar,[3] John Strang,[2] Maggie Telfer,[4] Heather Whitaker,[5] Peter Vickerman[1] and Matthew Hickman[1]

[1]Population Health Sciences, Bristol Medical School, University of Bristol, Bristol, UK
[2]National Addiction Centre, Institute of Psychiatry, Psychology & Neuroscience, King's College London, London, UK
[3]Centre for Mental Health and Safety, School of Health Sciences, University of Manchester, Manchester, UK
[4]Bristol Drug Project, Bristol, UK
[5]Department of Mathematics and Statistics, The Open University, Milton Keynes, UK

*Corresponding author Colin.Steer@bristol.ac.uk

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Plain English summary

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Plain English summary

Users of heroin or other opioids, such as morphine, have a risk of death 10 times higher than that of the general population. Overdose is the most common cause of death. In England and Wales during 2015/16, over 1200 people died from opioid poisonings, the largest number on record. The most effective treatment for people dependent on opioids is the prescription of substitute drugs, usually methadone or buprenorphine, called opiate substitution treatment. In the UK, this treatment is delivered commonly in primary care, often with support from drug agency workers.

We analysed data from people on opiate substitution treatment in primary care. We assessed whether or not death rates (all-cause and overdose) change with different periods of treatment or between treatments, with buprenorphine compared with methadone, and with the co-prescription of other drugs such as benzodiazepines.

Mortality risk was lowest after 4 weeks of treatment, at 0.3% for overdose deaths, but it was eight times higher in the first 4 weeks after treatment ceased. There was evidence that mortality risk was lower for patients on buprenorphine than for those on methadone, especially in the first 4 weeks of treatment, when the mortality risk for the former was approximately 90% lower.

The co-prescription of benzodiazepines more than doubled overdose death rates. The co-prescription of other drugs (zopiclone and similar sedatives, and gabapentinoids) also increased the overdose risk by 60%.

Higher doses in the first 4 weeks of treatment may be associated with higher death rates. If patients dropped out of treatment rather than having their dose gradually lowered, this might have led to higher death rates in the first 4 weeks after treatment ceased.

The number of buprenorphine prescriptions per year has increased over time, but treatment duration is shorter for patients on buprenorphine than for those on methadone.

New interventions are required that retain patients on treatment in the community. Clinical guidance on the dangers of co-prescribing drugs with opiate substitutes may need strengthening.

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