<table>
<thead>
<tr>
<th><strong>Title</strong></th>
<th>Seventeen year mortality in a cohort of patients attending opioid agonist treatment in Ireland. Commentary on 'methadone-maintained patients in primary care have higher rates of chronic disease' (O'Toole et al., European Journal of General Practice 2014; 20:275-80)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Authors(s)</strong></td>
<td>Klimas, Jan, Keane, Anna, Cullen, Walter, O'Kelly, Fergus, Bury, Gerard</td>
</tr>
<tr>
<td><strong>Publication date</strong></td>
<td>2016</td>
</tr>
<tr>
<td><strong>Publisher</strong></td>
<td>Taylor and Francis</td>
</tr>
<tr>
<td><strong>Item record/more information</strong></td>
<td><a href="http://hdl.handle.net/10197/7542">http://hdl.handle.net/10197/7542</a></td>
</tr>
<tr>
<td><strong>Publisher's statement</strong></td>
<td>This is an electronic version of an article published in European Journal of General Practice, Volume(Issues): Page numbers (2016). European Journal of General Practice is available online at: <a href="http://www.tandfonline.com/doi/abs/10.3109/13814788.2015.1109076">www.tandfonline.com/doi/abs/10.3109/13814788.2015.1109076</a>.</td>
</tr>
<tr>
<td><strong>Publisher's version (DOI)</strong></td>
<td>10.3109/13814788.2015.1109076</td>
</tr>
</tbody>
</table>
Seventeen Year Mortality in a Cohort of Patients Attending Opioid Agonist Treatment in Ireland.

Commentary on ‘Methadone-maintained patients in primary care have higher rates of chronic disease’

(O'Toole et al EJGP 2014;20: 275-80)

Dr Jan Klimas¹, ²*, Ms Anna Keane¹**, Prof Walter Cullen¹, Prof Fergus O'Kelly², Prof Gerard Bury¹***

¹UCD School of Medicine and Medical Science, ² BC CfE HIV/AIDS Urban Health Research Initiative, Vancouver, Canada, ³Rialto Medical Practice, 478 S Circular Rd, Dublin, D08, Ireland
Commentary

European Journal of General Practice

1488 words, 1 table, 1 figure

*c/o Coombe Family Practice, Dolphins barn, Dublin 8, D08, Ireland. E-mail:
jan.klimas@ucd.ie, Telephone: 014730893, Fax: 014544469
Author emails:

JK: jan.klimas@ucd.ie
AK: annakeane.1991@gmail.com
FOK: fokelly@tcd.ie
GB: gerard.bury@ucd.ie
WC: walter.cullen@ucd.ie

**Running title:** Agonist Mortality in General Practice
Seventeen Year Mortality in a Cohort of Patients Attending Opioid Agonist Treatment in Ireland

Commentary on ‘Methadone-maintained patients in primary care have higher rates of chronic disease’ (O’Toole et al EJGP 2014;20: 275-80)

The paper by O’Toole et al (2014) provides a real-world example of the high morbidity among people attending primary care for opioid agonist treatment (OAT). We wish to highlight the accompanying high mortality rate in this population.

OAT has substantially changed the course of the drug use epidemic. Although noted to reduce morbidity and mortality of patients attending specialised treatment clinics (1-4), limited longitudinal information is available on cohorts of such patients.

To explore the mortality rates, we conducted a prospective observational study, through the Registrar of Births, Deaths and Marriages in Ireland and the Central Methadone Treatment List, that followed up a cohort of patients (N=98) recruited for a methadone treatment study in 1996. All patients were attending specialist services for OAT and were randomly selected from those who met clinical criteria for transfer to general practice for continuing care. Research Ethics Committee of the Irish College of General Practitioners approved the study.

At baseline, the cohort was predominantly male (77%), with a mean age of 33 years (SD 5.7) and a median school-leaving age of 15 years (range 6-21). The average age of first heroin use was 17 (SD 3.2) years, with a mean age of first injection of 19 (SD 4.0).

Fifty (51%) participants had been in drug treatment on four or more occasions. The cohort had a mean of 5.1 treatments, including detoxification programmes, abstinence-oriented
programmes, narcotics anonymous and previously attempted, unsuccessful methadone maintenance programmes. The average time spent in their current methadone programme was 3.3 years (SD 1.5), mean dose 60.8 mgs (SD 20.2).

At follow up in 2013, 27 (27.6%) of the 98 participants had died in Ireland and had relevant entries in the Register of Deaths, 19 (19.4%) were currently in OAT and the status of the remaining 52 (53%) was “alive” (i.e., no entry in the Irish death register), as per the Irish death registry. The 52 “alive” patients had left the Central Treatment List (CTL) register but no further CTL information was available on their current status. The death certificates recorded multiple causes for most patients who had died; only six had a single cause. Drug toxicity and/or overdose were the most commonly listed causes of death (see Figure).

<Insert Figure here>

Our results are biased by the small sample size, non-probabilistic sampling framework, study location and data source and the possibility that some patients may have died outside Ireland. We did not retrieve and compare information on the cohort from other sources, such as GP records. Our inability to establish the interval data for the retention in treatment is a significant study limitation, but the overall retention of 19 out of the surviving 71 patients is comparable to previous research.

Our longitudinal follow-up study documents a minimum mortality rate of 27% in a cohort of relatively young adults followed from 1996 to 2013, demonstrating the much higher mortality rates observed among drug users. As OAT programmes develop, our findings point to an urgent need to improve the structure of addiction treatment in order to engage more users, reduce the mortality of drug users and improve their quality of life.
Abbreviations

OAT – Opioid Agonist Treatment
ICGP – Irish College of General Practitioners
CTL – Central Treatment List
GP – General Practice

Acknowledgements

Deirdre Langton from Coombe Family Practice and staff at the Registry of deaths and Central Statistics Office for help with data collection. Catherine Anne Field, Davina Swan, Helen Tobin, Leslie Daly, Mairead Egan for their assistance during the initial phases of the project.

Funding

JK’s and GB’s work on this project was supported by the MERIT grant: Medical Emergency Responders: Integration and Training from Department of Health. JK’s and WC’s grant from Health Research Board of Ireland part-funded the study (Grant ID: HRA-HSR-2012-14). In addition, JK’s time was part funded by “ELEVATE: Irish Research Council International Career Development Fellowship – co-funded by Marie Cure Actions (ELEVATEPD/2014/6)”. School of Biomedical, Life and Health Sciences at University College Dublin paid fees for copies of the death certificates via a student research stipend.

The funders had no role in the design and conduct of the study; the collection, analysis, and interpretation of the data; the preparation of the manuscript; or the decision to submit the manuscript for publication.
Contributors

JK and GB designed the study and oversaw data collection. AK conducted the research as part of her thesis for a degree in Biomedical, Health and Life Sciences. WC, JK and GB supervised AK’s thesis fieldwork, contributed to the funding and ethics applications in 2012. FO contributed to the study design and the initiation of the original cohort. All authors reviewed and approved the final version.

Conflict of Interest

No conflict declared
References


