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Estimating CDC-defined overdose risk in people prescribed opioids for chronic non-cancer pain: Implications for naloxone provision

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The number of opioid-related overdoses has been increasing in Australia over the past 15 years, with the majority of overdoses now linked to prescription opioids rather than illicit heroin ¹. One effective strategy for reducing opioid-related overdose deaths is the provision of take-home naloxone (THN) to opioid users and their carers, for use in a suspected overdose. In Australia, THN programs are now incorporated in a range of services targeting people who inject drugs or with opioid use disorders, including needle and syringe programs (NSPs), and Alcohol and other Drug (AoD) services ², although THN programs have been less widely established outside of these settings.

In the USA, the Centre for Disease Control and Prevention (CDC) published guidelines regarding prescription opioid use, and include recommendations on the provision of THN that state: “*clinicians should consider offering naloxone when prescribing opioids to patients at increased risk for overdose, including patients with a history of overdose, patients with a history of substance use disorder, patients taking benzodiazepines with opioids ... [or] patients taking higher dosages of opioids (< 50 OME/day)*”³.

We examined these risk factors in a national Australian cohort of 1,514 chronic non-cancer pain (CNCP) patients prescribed schedule 8 opioids in the Pain and Opioids IN Treatment (POINT) study ⁴. The prevalence of these risk factors are presented in Table 1. Importantly, three-quarters of the sample (77.7%) had evidence of one risk factor and two-fifths had two risk factors. The most common risk factors were daily Oral Morphine Equivalents of over 50mg and a lifetime history of substance use disorder (mainly alcohol). Participants in the

POINT study have been found to be very similar to other people obtaining opioids from pharmacies.

These findings suggest that that high proportions of Australian CNCP patients prescribed opioids are at risk of opioid overdose. Efforts are required to engage doctors who prescribe, and pharmacists who dispense, opioids to also consider THN interventions for their patients. Previous research with this cohort ⁵ indicated that most CNCP patients prescribed opioids had low levels of knowledge regarding signs and symptoms of opioid overdose, most believed THN to be a good idea, and most were receptive, or indeed expected their doctors to offer them THN.

Doctors and pharmacists involved in providing opioid medications should become equipped in knowing how to educate their patients regarding preventing and responding to opioid overdoses, including the safer use of opioid and other sedative medications, and in the use of take-home naloxone. Naloxone is available over-the-counter as an S3 medication, although the price may be prohibitive for many patients, and is more affordable through a PBS prescription. Further research is also required to examine whether the CDC recommendations regarding increased risk for opioid overdose also applies in Australian settings.

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Table 1:

CDC risk factors for overdose in the POINT sample.

Risk factor	N, % (95%CI)
Previous lifetime overdose	261, 17.3% (15.5 - 19.3%)
Any ICD-10 Substance Use Disorder	567, 37.5% (35.0 - 39.9%)
50 OME / day	733, 65.1% (62.3 - 67.8%)
Concurrent Benzodiazepine use	515, 34.0% (31.7 - 36.5%)
Total Number of Overdose Risk Factors	
1 Risk Factor	1,176, 77.7% (75.5 - 79.7%)
2 Risk Factors	642, 42.4% (39.9 - 44.9%)
3 Risk Factors	220, 14.5% (12.8 - 16.4%)
4 Risk Factors	38, 2.5% (1.8 - 3.4%)

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