

# Baclofen-related deaths in Australia 2000–2022

## BACKGROUND

The therapeutic indication of baclofen is for voluntary muscle spasm suppression, but off-label use includes alcohol use disorder. Deaths related to baclofen have been reported.



## METHODS

All cases of baclofen-related death in Australia, 2000–2022 aged  $\geq 15$  years were retrieved from the National Coronial Information System. Case characteristics, intent as determined by the coroner, toxicology and major autopsy findings were extracted from available reports.

## RESULTS



**102  
DEATHS**

**MEAN AGE**  
**45.6**  
YEARS

**MALE**  
**51%**

## DOCUMENTED IN CASES

- Mental Health Problems 73.5%
- Substance Use Problems 43.1%
- Specifically Alcohol Use Problems 38.2%
- Chronic Pain 37.3%
- Previous Self-harm or Suicide Attempt 30.4%
- Multiple Sclerosis or Spinal Injury 15.7%



## CIRCUMSTANCES OF DEATH

Intentional Toxicity  
**54.9%**

Unintentional Toxicity  
**30.4%**

Unintentional Toxicity + Disease  
**9.8%**

Accidental Injury  
**4.9%**

## TOXICOLOGY



Median baclofen blood concentration was 3.10mg/L

Prescribable psychoactive substances were present in almost all cases particularly antidepressants (69.8%) and benzodiazepines (64.6%).

## CONCLUSIONS

**Mental health** and **alcohol and substance use problems** were prominent. **Caution** is needed in **prescribing baclofen**, given its potential to be used in **intentional and non-intentional overdose**.

Emma Zahra,<sup>1</sup> Shane Darke,<sup>1</sup> Julia Lappin,<sup>1,2</sup> Johan Duflou,<sup>1,3</sup> Michael Farrell.<sup>1</sup>

1) National Drug & Alcohol Research Centre, University of New South Wales, NSW 2052, Australia, 2) Discipline of Psychiatry and Mental Health, University of New South Wales, Sydney NSW, Australia, 3) Sydney Medical School, University of Sydney, Sydney NSW, Australia.

This work was supported by the National Drug and Alcohol Research Centre UNSW Australia and the Drug and Alcohol Program, which are both supported by funding from the Australian Government. The authors acknowledge the National Coronial Information System as the data source and the Department of Justice and Community Safety as the source organisation of that data.