

New drug to tame violent patients

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Credit: Emergency Medicine Foundation (Australia)

Australian paramedics are leading the world by introducing a new drug, droperidol, to quickly and safely calm violent patients fueled by alcohol and drugs.



With backing from the Emergency Medicine Foundation (EMF) Australasia, the Queensland Ambulance Service (QAS) has also conducted the world's first comparison of the standard sedative, midazolam, with droperidol in a prehospital setting.

QAS found droperidol sedated <u>patients</u> nearly 70 per cent quicker, was three times safer and significantly fewer patients needed additional sedation either in the ambulance or once in hospital in comparison to midazolam.

Within a week of the data being published, QAS had received requests for further information from ambulance services in the United Kingdom and New Zealand, according to QAS Executive Manager Clinical Policy Development, Lachlan Parker ASM.

"Midazolam is the accepted standard internationally, but it can have significant side-effects so there's been a huge gap in paramedics' ability to safely sedate violent patients," said Mr Parker.

"Our paramedics and emergency department staff welcome the impact droperidol is having and there are some amazing stories of how it quickly it works to calm really aggressive and violent patients.

"It's also simple to administer, there are much fewer side-effects, it rarely over-sedates and patients wake up much nicer. We're so happy to finally have a safe drug to use.

"And because we've also collated data on comparing droperidol with midazolam outside the hospital setting, we've produced one of the true practice-changing pieces of research. We can now demonstrate to other paramedics just how effective the drug is for us. I believe we'll see droperidol embedded extensively in ambulance services around the world."



Queensland Minister for Health and Ambulance Services Steven Miles said research projects just like this pave the way for positive change across the healthcare system.

"Sadly, there are thousands of incidents each year where frontline healthcare workers are subject to violent outbursts, mostly as a result of alcohol and drug abuse," he said.

"It's fantastic to see Queensland research making a positive impact in protecting our first responders and emergency department clinicians. Projects like this highlight the importance of investing in medical research and finding new, more effective and more efficient ways of providing vital health services to Queenslanders."

The QAS introduced droperidol in 2016 as one of several initiatives to reduce the escalating violence against paramedics, mostly by drunken patients.

Mr Parker championed the uptake of droperidol based on research involving Princess Alexandra Hospital emergency physician and clinical toxicologist, Dr Colin Page. Dr Page, who has \$450,000 Noel Stevenson Fellowship from EMF, led the evaluation of the QAS droperidol roll out.

Dr Page said the real value of this latest research was in confirming that droperidol was safer and more effective in the prehospital setting, which mirrored previous results in the <u>emergency department</u> environment.

"The days of repeated doses of midazolam being given by paramedics are over, it just takes too long to sedate patients using this drug and it is more dangerous," he said.

"We're now pushing for <u>paramedics</u> and clinicians to administer the droperidol intramuscularly - there is no need for people to use it



intravenously - and to stop mixing different sedatives.

"Based on our extensive research, the standard protocol for violent patients should be 10 mg droperidol (65 to 75 per cent effective) followed by second dose of 10 mg (which is 95 per cent effective) and then ketamine."

EMF Chair, Dr Anthony Bell said the QAS-led research showed the importance of evaluating changes in treatment protocols.

"A Queensland-led initiative is set to change treatment protocols globally and lead to better patient care because there was research funding available for an evaluation," said Dr Bell.

The QAS research comparing droperidol with midazolam is available in the 2018 March edition of the Journal of *Prehospital Emergency Care*.

More information: Colin B. Page et al, A Prospective Before and After Study of Droperidol for Prehospital Acute Behavioral Disturbance, *Prehospital Emergency Care* (2018). DOI: 10.1080/10903127.2018.1445329

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