

## Comparing medication-related risk using prescription drug monitoring program algorithms and the ROOM clinical screening tool.

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**Introduction:** Various strategies have been implemented to identify those at-risk from prescription opioid related harms. This study aims to compare who is identified as 'at-risk' using two approaches, prescription drug monitoring program (PDMP) algorithms, and the Routine Opioid Outcome Monitoring (ROOM) tool.

**Methods:** Data from 119 people regularly using opioids from the ROOM implementation-effectiveness study were used. Patients self-completed the validated 12-item ROOM tool, comprised of validated sub-scales on pain, opioid use disorder, mood, risky alcohol use and constipation. Past 90-day dispensing records for the same patients were extracted, and used to determine those 'at-risk' based on published criteria for Victorian PDMP alerts for high dosage or risky drug combinations. Chi-squared tests were used to examine those at-risk according to PDMP compared to the ROOM.

**Results:** We found no association ( $p>0.05$ ) between those identified through PDMP alerts and those identified with clinical risk through ROOM. Of those identified via a PDMP alert ( $n=46$ , 39%), 12 (26%) also met criteria for opioid use disorder, 27 (58%) had unmanaged pain, 16 (35%) had risky alcohol use, and 12 (26%) had low mood. Of those ( $n=37$ , 31%) who met criteria for opioid use disorder, few ( $n=12$ , 32%) met criteria for any of the PDMP alerts, with most not receiving a PDMP alert.

**Discussion:** PDMP and ROOM identified different populations, with no clear association between clinical and medicine-algorithm determined risk. Given most people prescribed opioids have some level of risk, understanding the nature of that risk may inform what kind of a clinical response is needed.

**Implications for practice:** PDMP alerts, based on dose and drug combinations alone, don't necessarily identify clinical risk and therefore should not solely inform clinical decision-making. A combination of clinical screening and algorithms could help provide a more detailed assessment and better inform clinical decisions.

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