DRUG TRENDS IN MONTANA FROM A TOXICOLOGY PERSPECTIVE

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The presence of fentanyl in a postmortem case does not mean that it was part of the cause of death. That determination is made by the medical examiners and coroners as part of the death certificate.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Positive Fentanyl Cases in Postmortem cases</th>
<th>Mean concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>10</td>
<td>6.2 ng/mL</td>
</tr>
<tr>
<td>2018</td>
<td>15</td>
<td>13 ng/mL</td>
</tr>
<tr>
<td>2019</td>
<td>22</td>
<td>11 ng/mL</td>
</tr>
<tr>
<td>2020</td>
<td>41</td>
<td>9 ng/mL</td>
</tr>
<tr>
<td>2021</td>
<td>87</td>
<td>12 ng/mL</td>
</tr>
<tr>
<td>2022 (through Q3)</td>
<td>91</td>
<td>8.4 ng/mL</td>
</tr>
</tbody>
</table>
| Percent increase from 2017-2021 | 770%
FENTANYL-INDUCED MUSCLE RIGIDITY  
(WOODEN CHEST SYNDROME)

Respiratory depression vs. respiratory rigidity

• Depression – slowing of respiratory system
• Rigidity – muscle tightness that can close the airway
• Fentanyl can cause both (unlike other opiates).
• Anesthesiologists have known about this condition and can reverse it in a clinical setting.
• Happens immediately

****Narcan will not reverse respiratory rigidity****
The combination of ethanol and THC has the potential for additive impairment

Canada’s per se laws:
- 0.080 g/dL ethanol
- 5 ng/mL THC
- Combination: 2.5 ng/mL THC + 0.050 g/dL ethanol

<table>
<thead>
<tr>
<th>Full Year</th>
<th>Total Positive THC (or metabolite) in Driving Cases</th>
<th>Percent Increase</th>
<th>Mean Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>284</td>
<td></td>
<td>7.8 ng/mL</td>
</tr>
<tr>
<td>2018</td>
<td>454</td>
<td>59%</td>
<td>8.6 ng/mL</td>
</tr>
<tr>
<td>2019</td>
<td>464</td>
<td>2%</td>
<td>9.4 ng/mL</td>
</tr>
<tr>
<td>2020</td>
<td>530</td>
<td>14%</td>
<td>9.9 ng/mL</td>
</tr>
<tr>
<td>2021</td>
<td>621</td>
<td>17%</td>
<td>10 ng/mL</td>
</tr>
<tr>
<td></td>
<td>Percent increase from 2017-2021</td>
<td>118%</td>
<td></td>
</tr>
</tbody>
</table>
AGE RANGES FOR DRIVING RELATED THC POSITIVE CASES: 2021

Ages 14-20: 21%
Ages 21-30: 33%
Ages 31-40: 20%
Ages 41-50: 11%
Ages 51-60: 9%
Ages 61-70: 6%
Ages 71+: 0%

THC is not legal for this age group.
“Nearly half of Montana traffic deaths (45%) in 2020 were caused by drunk drivers. That also ranked highest.”

“The state had the second-highest number of drunk drivers under 21 involved in fatal crashes (0.9 per 100,000 licensed drivers), behind only Texas.”
EMERGING TRENDS

- New forms of THC, delta 8 THC
- Designer drugs make detection challenging

Case with teenagers, one deceased, contained three new drugs:
Alpha-PVP (synthetic stimulant), AL-LAD and DOC (synthetic hallucinogens)

- Methamphetamine use still prevalent
- More polydrug cases – stats support this
THANK YOU FOR YOUR ATTENTION!

QUESTIONS?

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