ATTN: Mark Palmer

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In reply to: Overview of Midazolam Use

February 2, 2021

Senator Kutcher, Senator Megie, Senator Moodie, Senator Ravalia

February 8, 2021

Preamble: My name is Joel B. Zivot and I am a licensed physician in the state of Georgia, USA. I earned my medical degree from the University of Manitoba in 1988. I have held unrestricted medical licenses to practice medicine in the provinces of Manitoba and Ontario. I am a fellow of the Royal College of Physicians of Canada with the specialty of Anesthesiology. I am board certified in Anesthesiology and Critical Care Medicine by the American Board of Anesthesiology. I have been a practicing anesthesiologist and intensive care medicine specialist for the last 26 years. I am an expert in the use of the drugs mentioned in this brief. I estimate I have provided anesthetics and sedation to over 50,000 people.

The above-mentioned brief, dated February 2, makes the following claims.

- 1. With respect to the spectrum of action of Midazolam, some variation occurs depending on dosage adjustments.
- 2. For the purpose of MAID, Midazolam is intended to provide "relief from anxiety" and to provide "comfort to the patient".
- 3. Midazolam is not used in MAID to produce death.
- 4. When Midazolam is used in lethal injection for execution in the US, the purpose of Midazolam is generally to produce death.
- 5. In the setting of MAID, Midazolam is administered by highly trained health professionals and this is different from the qualifications of those that administer Midazolam in the setting of lethal injection for execution.
- 6. There have been no reports of Midazolam causing a harmful effect during a MAID death.

The February 2 brief misses the point, fails to address critical questions or is wrong for the following reasons:

- Lethal injection for execution and MAID are fundamentally identical tasks in that both are designed to cause death by the use of the injection of medications not specifically designed to be used to produce death.
- 2. No Pharmaceutical company develops or markets medications to be used to produce death in people.
- 3. The package inserts for Midazolam, Propofol and Rocuronium do not list MAID as an indicated uses and make no mention of dosage for the purposes of MAID.

- 4. Midazolam has an important property not mentioned in the brief of February 2, 2021 and that is to produce amnesia.
- 5. Amnesia is the principal reason Midazolam is utilized in the clinical setting.
- 6. The production of amnesia in the setting of MAID is moot.
- 7. The use of Midazolam to provide comfort in anticipation of voluntarily being put to death for the purposes of the relief of intolerable suffering seems to only delay the purpose of MAID.
- 8. In the United States, Midazolam is not used to produce death in the setting of lethal injection.
- 9. In the United States, Midazolam use in lethal injection has been associated with the findings of lung congestion as seen on autopsy.
- 10. The report of Midazolam not causing harm in the setting of MAID is a claim without evidence and is unverifiable.
- 11. MAID provider reports that death by MAID appears peaceful reflects a serious lack of understanding on the part of those providers about the mechanism of action of muscle relaxants like rocuronium.
- 12. Propofol may or may not produce death when injected as specified in MAID.
- 13. Propofol may or may not induce a state of lack of awareness when injected as specified in MAID.
- 14. Propofol has not been used for lethal injection in the US but in the clinical setting, patients complain of a burning sensation in the injection site when injected with a dose that is $1/10^{th}$ (100 mg) the dose used in MAID.
- 15. Propofol injection at a dose of 1000 mg as used in MAID very likely causes burning in the lungs and tissue destruction as can be observed with the injection of pentobarbital or Midazolam in the setting of lethal injection for execution.
- 16. Muscle relaxants, when injected in MAID, will produce an outwardly observed stillness as a consequence of muscle paralysis than has wrongly and repeatedly been described as a state of peacefulness.
- 17. Muscle relaxants when used in MAID will produce death by suffocation.
- 18. The MAID protocol very likely causes lung congestion in a similar fashion to that which has been shown in over 200 cases of lethal injection in the US.
- 19. The only way to refute the hypothesis that the MAID protocol causes pulmonary fluid accumulation and death akin drowning is by obtaining Canadian data through autopsy studies on at least 200 individuals put to death by MAID.
- 20. In the setting of lethal injection in the US, individuals involved in intravenous catheter placement and injections must have appropriate and relevant training to perform these tasks and are generally supervised by a physician.

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