



Question: How do you convert methadone from a subcutaneous dose to an equivalent oral dose?

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Summary:

- For patients with palliative care needs, methadone should only be prescribed under the supervision of a specialist palliative care team.
- To convert from subcutaneous to oral methadone three methods are suggested;
 1. The same dose could be used (if overdosing is a concern this is the safest option).
 2. The subcutaneous dose can be multiplied by 2
 3. The subcutaneous dose can be multiplied by 1.4 (divide by 7 and multiply by 10)

Example: If a patient is receiving 10mg of methadone subcutaneously, using the conversions outlined, the equivalent oral dose could be 10mg, 14mg or 20mg.

Information:

There is limited information available to guide the conversion of methadone from parenteral administration to oral administration. The oral bioavailability of methadone varies from 36-100%^{1,2} making exact subcutaneous (SC):oral (PO) equi-analgesic equivalence ratio difficult to determine.³ Conversion ratios suggested include a 1:1 (SC:PO)³, 1:2 (SC:PO)^{1,2}, or 0.7:1⁴ (SC:PO).

- *The Syringe Driver* textbook recommends that when converting from subcutaneous methadone to oral methadone, a ratio of **1:1** is suggested.³

Palliative Meds Info: Terms and Conditions

The information outlined above is intended for healthcare professionals only. The information outlined above is believed to accurately reflect the medical literature at the time of writing. Healthcare professionals must use their own judgment to determine the accuracy and relevance of the information. See www.olh.ie for full terms and conditions.

- Two American reference sources, the *American Hospital Formulary Services (AHFS)* database and *Micromedex* recommend that if converting from parenteral to oral methadone, a ratio of **1:2** parenteral to oral should be used (e.g. a patient receiving 5 mg of parenteral methadone hydrochloride would be switched to 10 mg of oral methadone).^{1,2} If this ratio is used it should be considered that the patient may receive double the previous dose of methadone due to the high bioavailability of methadone observed in some patients.
- In a retrospective analysis of eight patients converted from parenteral methadone to oral methadone, *González-Barboteo et al* recommended a conversion ratio of **0.7:1** for SC:PO.⁴ They noted that the traditional ratio (SC:PO dose ratio of 1:2) produces toxicity problems.⁴

The clinical condition of the patient should always be taken into consideration when deciding which conversion ratio to use. The patient should be monitored very carefully during the conversion period. In this context, methadone should only be prescribed under the supervision of a specialist palliative care team.

References

- 1) Monograph Methadone. American Hospital Formulary Services (AHFS). Available from www.medicinescomplete.com. Accessed on the 12/04/2017.
- 2) Monograph Methadone. Micromedex. Available from www.micromedexsolutions.com. Accessed on the 12/04/2017.
- 3) Dickman A, Schneider J. The Syringe Driver, continuous subcutaneous infusions in palliative care. 4th Edition. Oxford. Pg 149
- 4) González-Barboteo J, Porta-Sales J, Sanchez D, Tuca A and Gomez-Batiste X. Conversion from parenteral to oral methadone. *Journal of Pain & Palliative Care Pharmacotherapy*. 2008;22(3):200-5.