

How to Change Routes of Administration of Opioids

Introduction

This information sheet has been adapted from the research literature and contains guidelines for clinician use when changes need to be made to the route of administration of opioid analgesics for patients receiving opioid therapy. This resource contains a table of equianalgesic doses of eight commonly prescribed opioid analgesics when administered orally/rectally or parenterally. Information about how to use the chart to switch between routes of opioid administration and additional considerations when switching between opioids are also provided.

Adapted from:

Virtual Mentor

Online Ethics Journal of the American Medical Association
January 2003, Volume 5, Issue 1

Clinical Pearls: How to Change Routes of Administration of Opioids By Audiey C. Kao, MD, PhD

Pain management is a critical competency in medicine especially when palliation, and not treating the underlying disease, is the physician's focus. Oftentimes physicians need to change the route of administration of opioid analgesics. For example, a patient may be unable to take oral medications, and may require pain medication parenterally. When changing routes of administration an equianalgesic table is a useful guide for dose selection.

Equianalgesic Doses of Opioid Analgesics		
Oral/Rectal Dose (mg)	Analgesic	Parenteral Dose (mg)
100	Codeine	60
--	Fentanyl	0.1
15	Hydrocodone	--
4	Hydromorphone	1.5
2	Levorphanol	1
150	Meperidine	50
15	Morphine	5
10	Oxycodone	--

- To switch between routes of opioid administration use the equianalgesic information on the horizontal axis. For example, 150 mg meperidine orally per day is equivalent to receiving 50 mg of meperidine intravenously.
- To switch between opioids, use the information on the vertical axis. For example, 10 mg of oxycodone orally is equivalent to 50 mg of meperidine intravenously.
- Long term opiate use can lead to tolerance which requires increasing the dose of medication to achieve pain control. When switching between opioids, *there is the possibility of cross tolerance, which is usually incomplete*. A patient may have some tolerance to a new opiate as a result of being on a previous opiate. Therefore, experts suggest that you **begin the new opiate between 50 and 75 percent of the equianalgesic dose.**

© 2003 American Medical Association

This publication may be downloaded and reproduced for educational purposes. Sale or distribution for non-educational purposes is prohibited.

Curriculum resource author note: methadone doses have been removed from the table in the original publication