

Opioid Equianalgesia

Big word. ...tricky to say. Critically important to providing the appropriate and safe opioid therapy to patients.

Opioids are used for their pain-relieving properties that bind to the human body's internal opioid receptors. They are also used, at times, to palliate the symptom of dyspnea for those at the end of life.

Opioids can be compared to each other because of their similar compositions and ways of working in the body. Equianalgesia is one of those ways we can compare opioids.

Physicians, nurses, and pharmacists:

Whether you are prescribing, administering, or dispensing opioids, you need a solid understanding of equianalgesia to properly and safely perform your role in a patient's medication management!

Other healthcare providers:

All healthcare providers benefit from understanding that the concept of equianalgesia is one of several factors taken into consideration by those prescribing, dispensing, and administering opioids to patients.

Understanding Equianalgesia

The easiest way to understand what equianalgesia means is to break down the word itself:

Equi: Equivalent
Analgesia: Pain Relieving Ability

Morphine is the opioid that has been scientifically-studied the longest and the most. The pain-relieving properties of morphine are considered the gold-standard, against which the pain-relieving abilities of all other opioids are compared.

The benefit of understanding that opioids have equivalent pain-relieving abilities is that opioids can be switched if a patient has an intolerance to the side-effects of a specific opioid or develops opioid toxicity from the metabolites of a specific opioid without compromising their pain relief.

Evidence-based tools like the [Equianalgesic Dosing Chart](#) can assist clinicians to correctly determine the equivalent pain-relieving effect of one opioid to another.

Why do opioid administration routes affect equianalgesia?

When an opioid is taken orally (PO), by tube (NG/G-tube/J-tube), or rectally (PR), it is absorbed by the GI tract into the blood stream that flows first to the liver. The opioid will be metabolized first in the liver; this is known as the "first-pass effect" and results in approximately 50% of the dose to be lost in metabolism. The remaining dose will then circulate to the heart and throughout the rest of the body.

If an opioid is administered into the subcutaneous tissue (SUBQ), or directly into circulation by intravenous (IV), the dose of the medication is circulated throughout the body first.

Equianalgesia calculations can be tricky! Additional education on equianalgesia and opioid rotation is available through our [Essential Pain Management](#) (EPM) and [Comprehensive Advanced Palliative Care Education](#) (CAPCE) courses for all classes of nurses.

Practice Your Opioid Equianalgesia Skills



[Click Here](#)

HPC Consultants are here to provide case-based mentorship on opioid rotation calculations for clinicians, so that you can gain confidence and competency in opioid therapy for your patients!