Use of Continuous Infusion Opioids During Comfort-Focused Care

The Problem

- Opioid infusions are commonly used in the care of terminally ill patients who are receiving comfort-focused care.
- Indications for infusions include the treatment of symptoms (dyspnea, pain) in patients who require greater amounts of opioids than can be delivered by intermittent opioid dosing alone.
- Opioid infusions help control symptoms by delivering a consistent source of medication in patients with higher opioid requirements.
- In our practice, we have encountered several cases in which opioid infusions were initiated in comfort-care patients without a clear need for higher level opioids. This raises concern about inappropriate use of these infusions and potential inconsistencies in end-of-life care at our institution.

Aim/Goal

To measure the use of opioid infusions for hospitalized, non-ICU patients at the end of life – i.e., to examine how opioid infusions are being used in relation to the patients' previous 24 hour opioid requirements.

- Analysis will be used to inform educational activities for clinicians, to explore potential pharmacy interventions and to develop future clinical care guidelines

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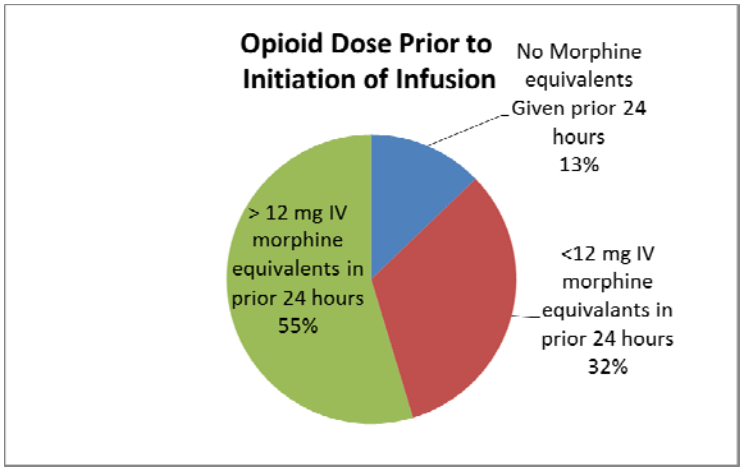
The Analysis

- Queried pharmacy system database to identify all patients, between May 1, 2012 - April 30, 2013 for whom morphine or hydromorphone infusions were dispensed to the floors (ICU excluded) and then evaluated whether the infusion was being used for end of life care – i.e., patients who were identified as "CMO" ("comfort measures only").
- We reviewed patients' medication administration record prior to initiation of the infusion to see whether they had received sufficient amount of opioid beforehand to merit the initiation of the infusion. We set the minimum amount of opioid required for an infusion at 12mg/24 hours of IV morphine (equivalent to morphine infusion of 0.5mg/hr.) All opioids were converted to IV morphine equivalents for ease of comparison.
- Additional factors examined included age, gender, ordering team and floor; whether patient received a palliative care consult, and the length of infusion- i.e., time of infusion start until patient expired (if available).

The Results/Progress to Date

- 86 patients were identified as having received an opioid infusion during this 12 month period. 11 of these patients did not receive any IV morphine equivalents in the 24-hour prior to starting the infusion, and 28 received only small doses prior to the infusion's initiation. In total, 39 patients (45%) were initiated on opioid infusions even though they had received little to no opioids in the 24hr preceding initiation of the drip.
- Most patients who received small or no doses prior to infusion were also found to have not had a palliative care consult.



Lessons Learned

- There is considerable variability around the use of opioid infusions at the end of life across service lines (ie, medicine, neurology, and surgery).
- A significant portion of opioid infusions are initiated inappropriately and without significant clinical justification
- We identified an opportunity to standardize care through the creation of comfort-focused care guidelines and order sets on non-ICU wards.

Next Steps

- Creation of a guideline for clinicians to reference regarding optimal dosing of opioids at the end of life.
- Explore possible interventions with pharmacy at point of infusion order in CPOE
- Create an order set in CPOE that supports best practice.
- Educate physicians, nurses, and pharmacists around the proper use of medications at the end of life.

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