

Prescriptions of naloxone for patients on new or titrating methadone in the hospice inpatient setting

Dr A Ireland, Clinical Fellow



Background

There was a clinical incident on the hospice inpatient unit where naloxone was administered to a patient. After the event, it was deemed that necessary information was not obtained prior to the administration of naloxone and thus, it may have been given in error. This led to a review of naloxone prescriptions, the criteria for administration and the process of administration.

During this process, it highlighted a lack of understanding on how to prescribe naloxone and the correct indications for prescription. This became the focus of this QI project.

Scottish Palliative Care Guidelines

Reversal of life-threatening respiratory depression due to opioid analgesics, indicated by:

- a low respiratory rate, less than 8 respirations/minute
- oxygen saturation below 85%, patient cyanosed.

Care settings where there is no immediate access to the IV route, for example community:

- Naloxone may be administered intramuscular (IM) when IV access is not immediately available.
- 100 micrograms (0.25ml) naloxone IM should be given and repeated after five minutes if there is no improvement with the first dose.

Source: <https://rightdecisions.scot.nhs.uk/shared-content/palliative-care/naloxone/>

Figure 1

Aims

1. To determine the number of cases where naloxone was appropriately prescribed for patients on new or titrating dose methadone
2. To determine if naloxone prescriptions meet Scottish Palliative Care Guidance (SPCG) for dose, route, frequency and indication.
3. To improve accuracy of naloxone prescriptions

Methods

Initial analysis

The paper drug kardex of all hospice inpatients admitted over a 4 month period were checked for prescriptions of methadone and naloxone.

If methadone was prescribed, it was reviewed if naloxone was indicated and whether naloxone was prescribed.

Indication for routine naloxone prescription: patient started on new methadone or titration of methadone dose

(not required if stable, long-term dose OR if patient actively dying)

Each naloxone prescription, whether indicated or not, was then reviewed. Four pieces of information were recorded: dose, route, indication and frequency.

The prescriptions were compared to the Scottish Palliative Care Guidelines on naloxone (Figure 1).

Re-analysis

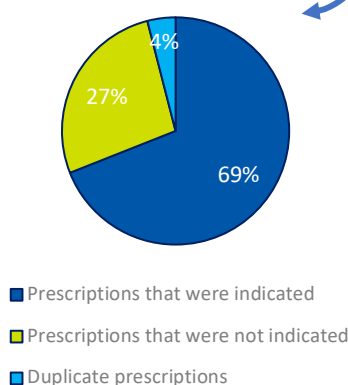
This process was repeated after the 'action' phase.

Action

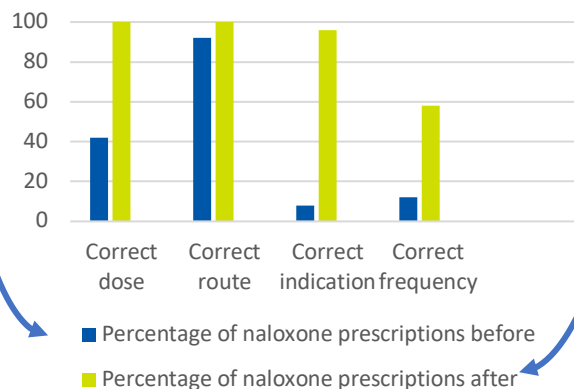
- Education of the medical team on the Scottish Palliative Care Guideline guidance on naloxone – in medical meeting
- Education of the medical team on the correct prescription of naloxone at St Columba's Hospice – in medical meeting
- Educational video created on the use of naloxone in palliative care patients

Summary of results

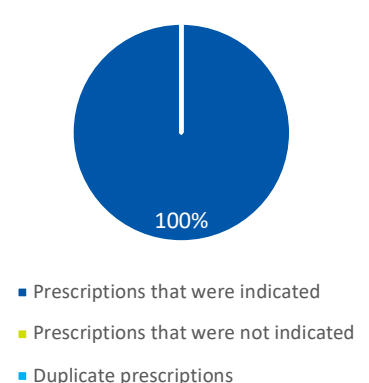
Indication for naloxone before education



Naloxone prescriptions



Indication for naloxone after education



Discussion

Giving naloxone in a palliative care setting is different to in an acute opiate overdose. It is important to consider the impact of acute reversal of methadone that is intended for symptom management. Acute reversal will result in symptoms of withdrawal which can be very distressing for a patient. It is therefore important to have clear criteria when naloxone should be given.

In part, this can be achieved with naloxone being prescribed for the correct patients and the prescriptions being clear. This project reviewed the number of naloxone prescriptions that were correctly indicated and recorded the accuracy of the prescriptions when compared to the SCPGs.

This project has demonstrated that the education on naloxone prescribing, through face-to-face teaching and a video, has resulted in improvement in all aspects of its prescription. This includes the indication for prescription and the documented dose, route, indication and frequency.

However, it has also demonstrated there are still areas for improvement. The remaining item of greatest variation from the guidelines is the recorded frequency.

This provides an opportunity to develop further tools on naloxone prescription and take this project further.