

A service review of pain post Ilizarov frame Application

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Background

Patients following Ilizarov frame application appeared to have prolonged episodes of severe pain once their nerve block had worn off.

Since the deregulation of Oramorph there seemed to be a reliance on Oramorph (5-20mgs) prn, for breakthrough pain in the first 24 hours post op, which appeared inadequate for most patient's pain

S/C opioids and IVPCAs were infrequently prescribed for this group of patients

Not all patients received a local anaesthetic block intra-operatively

As an Acute Pain Service we see many different types of operations and patients are reviewed by one of five clinical nurse specialists, identifying specific areas/operations where patients struggle with pain can be difficult. This review is intended to be the start of a rolling program of reviews

Aims

- To evaluate pain relief post ilizarov frame application
- To identify the effectiveness of analgesia and the need for further interventions/ review.
- To identify worst pain scores day 1, 2 and 3.
- To identify the time spent in severe pain as a percentage of the day
- To identify what analgesia is prescribed post-operative.
- To identify if patients feel they received enough analgesia

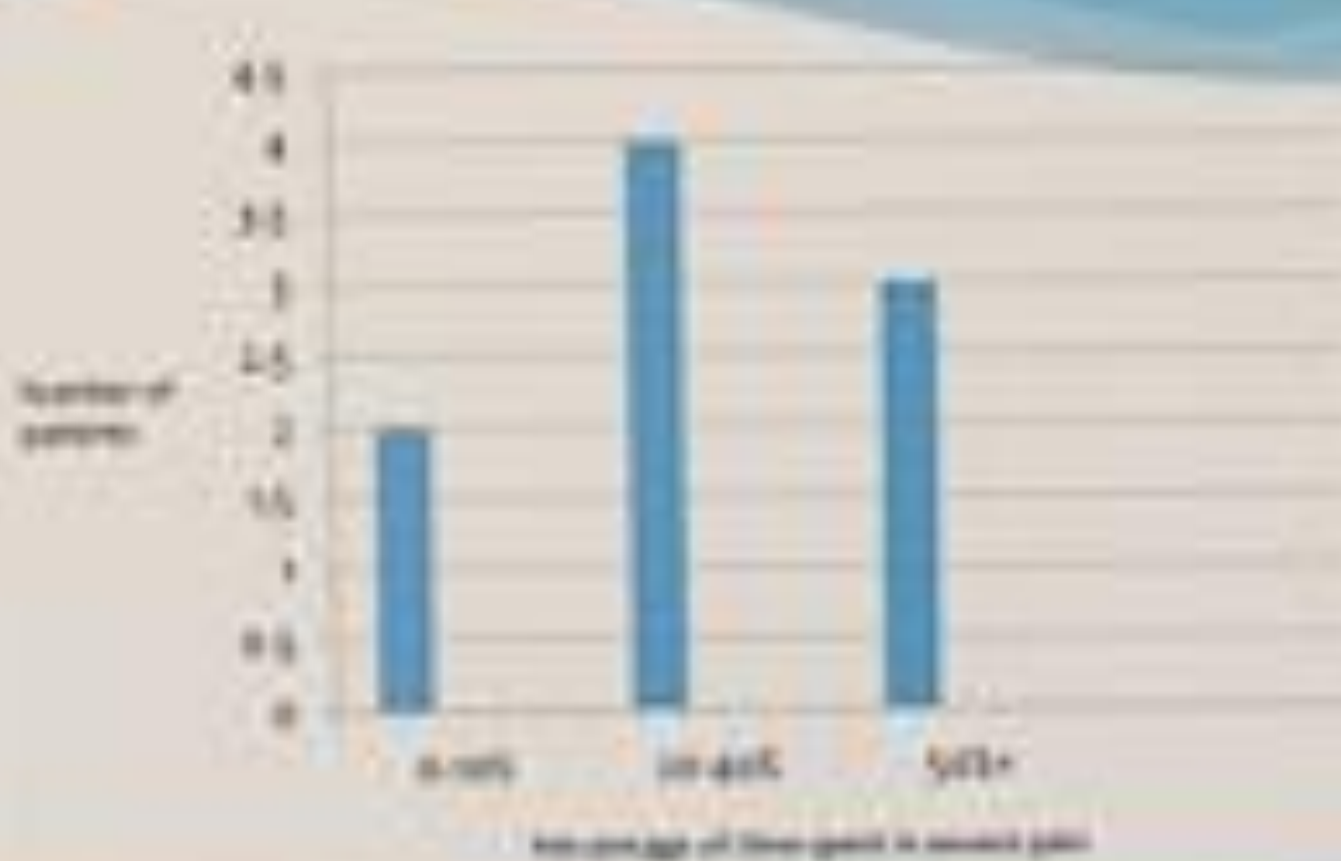
Method

20 patients were involved in the sample. The service review commenced on Monday the 19/1/2016. All patients who had an Ilizarov frame (Sunday - Thursday) from this date were involved in the review. No data was collected on Friday-Saturday because no members of the review team were available to collect data day 1 post operation.

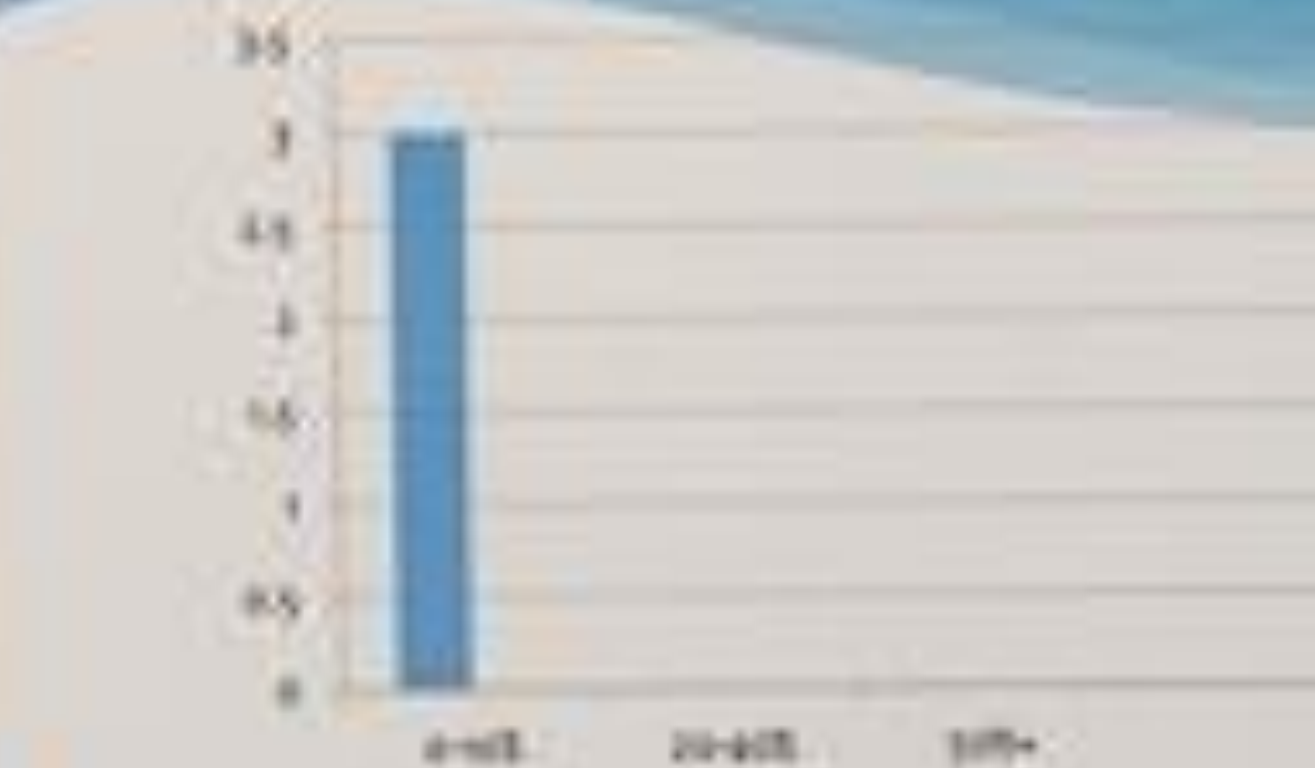


Results

Percentage of time spent in severe pain in the first 24 hours post op
Oramorph regardless of type of anaesthetic



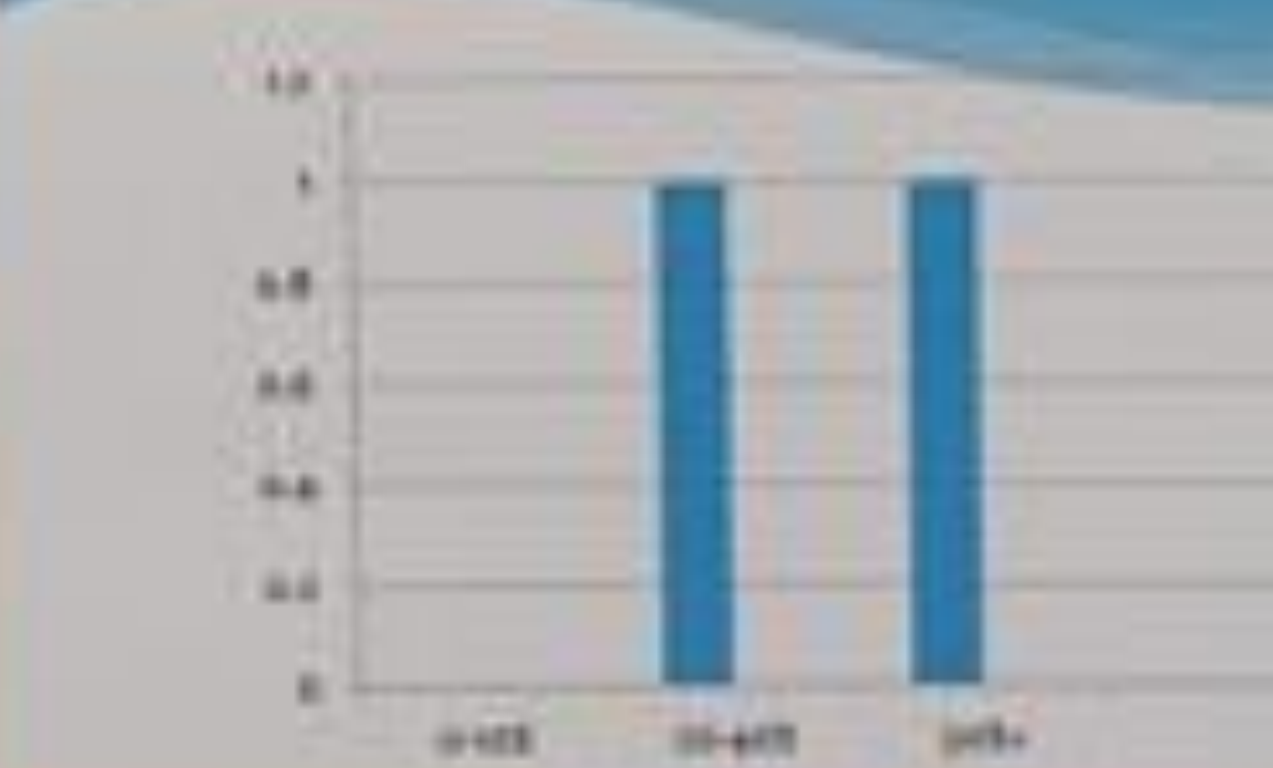
Percentage of time spent in severe pain in the first 24 hours post op
IV PCA and LA block



Percentage of time spent in severe pain in the first 24 hours post op
Oramorph and LA block



Percentage of time spent in severe pain in the first 24 hours post op
Oramorph and a spinal anaesthetic



70% of patients experienced severe pain (7/10+) day 1 post op.

40% of patients (8/20) spent between 4.8-19.2 hours/24 hours in severe pain, day 1 post op

Only 25% of patients had no episodes of severe pain in the first 24 hours

50% of patients felt they hadn't received enough analgesia in the first 24 hours

25% of patients felt their analgesia didn't work.

Further results and discussion

Out of the 50% of patients that felt they hadn't received enough analgesia in the first 24 hours, 2 had an IVPCA and 7 had prn Oramorph and 1 had nothing.

Out of the 25% of patients that felt their analgesia didn't work, 4 had Oramorph and 1 had nothing

7/9 pts who needed a strong opioid and had Oramorph the first post-operative night spent 4.8 hours+ in severe pain.

7 patients in total received an IVPCA:-
1/7 had a GA and PCA and struggled day 1 and day 2.
5/7 had an IVPCA + LA block, all of these patients pain was well managed (2 of these patients went home day 1).
1/7 had increased pain day 2

Day 2 post-operative (3 patients went home)

41% of patient still expressed severe pain 7/10+, down from 70% on day 1.

24% of patients (4/17) spent 4.8 hours+ in severe pain, compared to 40% on day 1

Who was still experiencing a prolonged time in severe pain? (4/17 patients)?

1 patient who spent 75% of the time in severe pain was still 60% by day 2 -GA and IVPCA

2 patients who were well controlled day 1, spent 12 hours + in severe pain day 2, both of these patients had a GA and local anaesthetic block, one patient had an IVPCA which had been insitu for one week prior to the review following a previous ex fix, the other patient was well controlled day 1 with just Dihydrocodeine.

Limitations

- Only 20 patients were reviewed.
- Data was only collected from patients who went to theatre Sunday-Thursday.
- No patients were given sc opioids in the sample therefore I am unable to assess the effect of s/c
- I didn't look at the type of local anaesthetic used and the volume to see if this made a difference to the effect and duration of pain relief.
- There were only a limited number of patients who didn't have a local anaesthetic block, bigger numbers might have generated different results

Recommendations

- Regional local anaesthetics to be used where possible
- IVPCA to be used the first post-operative night, where possible
- If an IVPCA isn't appropriate to use prn sc opioid
- Further review to establish the effect of either an IVPCA or SC opioid in the first 24 hours
- Anaesthetists to consider ways to extend the duration of their local anaesthetic blocks
- Anaesthetist in conjunction with surgeons to consider local anaesthetic catheters for the first 24 hours post op