


Pregabalin for Post-Operative Pain Following Total Knee Replacement

An audit to review effectiveness and side-effects

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The problem

- An increase in falls on an elective orthopaedic ward during July-September 2016
- Suggestion that the falls were due in part to the introduction of pregabalin post TKR surgery
- Of the 14 falls during that period 11 patients had undergone TKR surgery

Background

- A drug regime for patients undergoing Total Knee Arthroplasty (TKR) was devised in response to reports of variable analgesia regimes and feedback from physiotherapists that patients could not always manage their outpatient physiotherapy
- As TKR surgery is more painful than THR the decision was made to give 50mg pregabalin bd for 10 days
- A pre-printed drug chart was introduced to in September 2015 following ratification by DTC
- Reports of increased falls were brought to the Inpatient Pain Service in October 2016

Response

- Falls can be catastrophic for the individual and due to the high percentage of them being reported in TKR patients decisive action was needed
- Pregabalin's common/very common side effects include: dizziness, drowsiness and disturbances in muscle control and movement
- The initial reaction was to stop the pregabalin but the eventual decision was to reduce the dose to 25mg nocte

Concerns and reason for audit

- There were concerns within the team that this would result in increased pain
- The decision was made to carry out an audit
- Data was collected from Evolve from all patients who had TKR in October 2016 who had 50mg bd pregabalin and compare against a similar group of patients who had 25mg nocte. The audit looked at:
 - Number of falls in each group
 - Amount of oral morphine used
 - Length of stay

Results (headlines)

October 2016

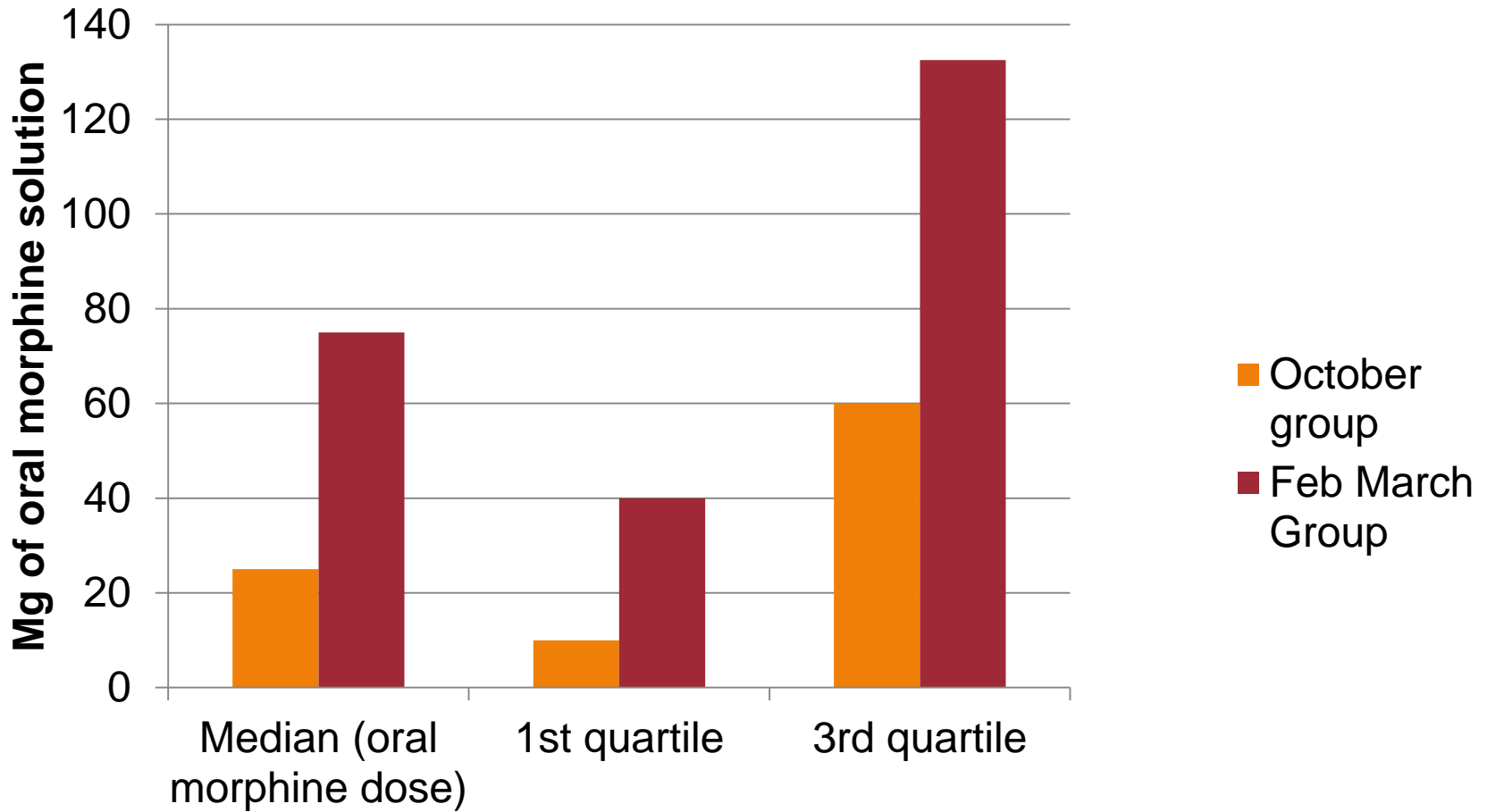
- 41 patients had TKR (one excluded as no drug chart on Evolve) n=40
- Age range 49-87 years
- Mean age 68
- Male/female split 16/24
- Total amount of oral morphine consumed all patients **2090mg** (average **52.25mg** per patient)
- Mean length of stay **3.6** days
- Number of falls 1*

* patient had not been given pregabalin

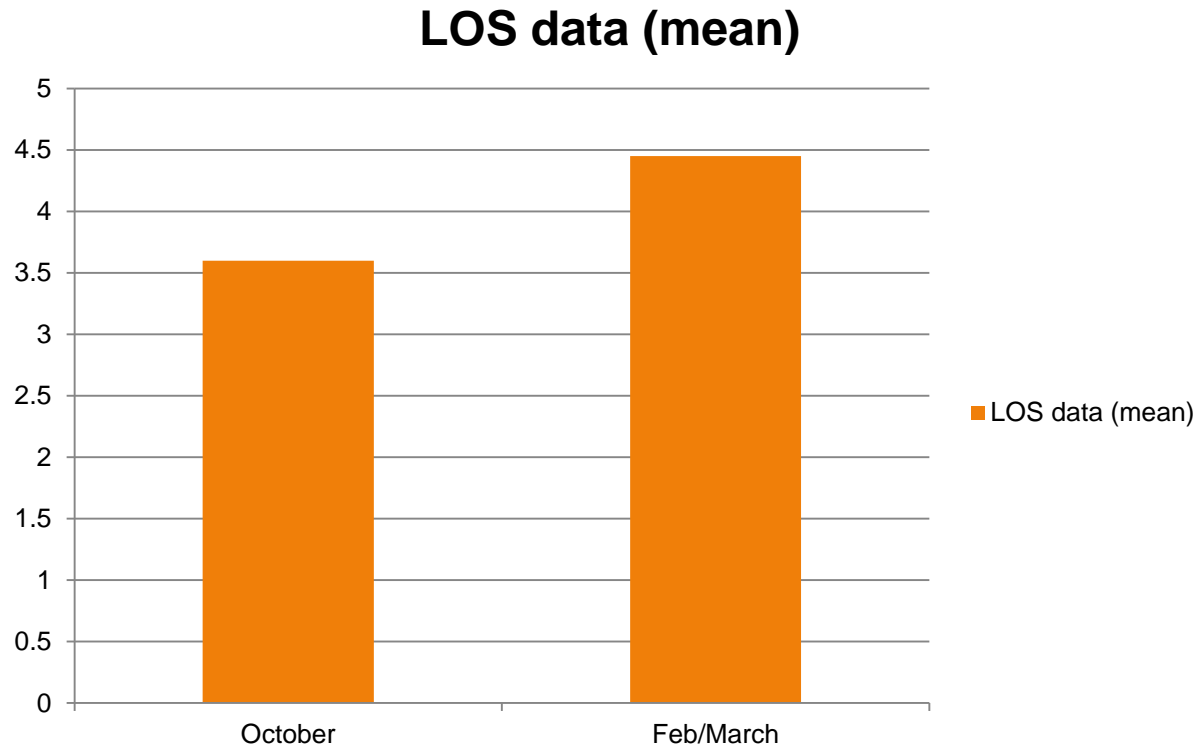
February/March 2017

- n=40 patients to match previous group (taken sequentially)
- Age range 50-88 years
- Mean age 67.3
- Male/female split 16/24
- Total amount of morphine consumed all patients **3720mg** (average **93 mg** per patient)
- Mean length of stay **4.5** days
- Number of falls 0

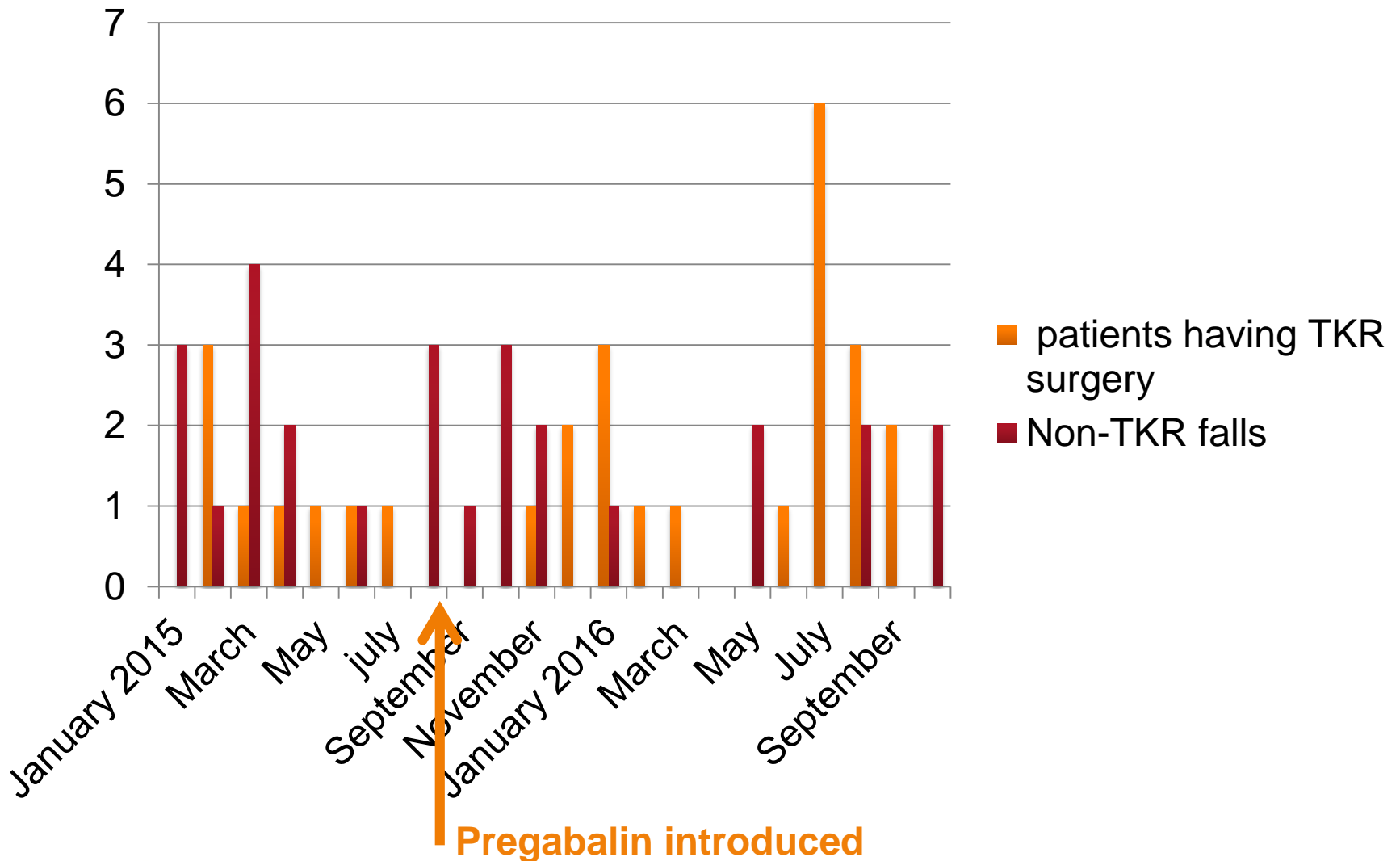
Results – oral morphine consumption



Results – Length of Stay



Falls info



What the audit seems to be saying

- Pregabalin does seem to have an opioid sparing effect and this seems to impact on length of stay
- The research is very mixed and there is no consensus regarding dose, start point or time it should be given for
- There does not seem to be a link between giving pregabalin and falls
- Another factor should be considered to explain the falls in July 2016

Response

- Plan to re-introduce pregabalin and then **re-audit** to check that the results were not random
- It has been suggested that we titrate the dose so that

Age less than 50 years	Age 50-70 years	Age over 70 years
75mg bd	50mg bd	25mg bd

- Guidance regarding starting doses for OxyContin have also been included following an incident where a locum anaesthetist prescribed 10x recommended amount as unfamiliar with drug