

RE-AUDIT OF TRANSDERMAL FENTANYL PRESCRIPTION IN THE BRISTOL HAEMATOLOGY AND ONCOLOGY CENTRE

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1. Introduction

- Safe prescribing of opioids is of paramount importance in ensuring both adequate pain relief and patient safety in line with best practice.
- Audits from 2002 onwards in the Bristol Haematology and Oncology centre (BHOC) were undertaken to review and improve opioid prescribing.
- A re-audit in July 2008 did not identify enough patients on transdermal fentanyl in the study period to include this aspect of opioid prescribing in the analysis.
- This audit was therefore designed to specifically look at transdermal fentanyl prescribing in accordance with Bristol Palliative Care Collaborative (BPCC) guidelines.

2. Aim

- To re-audit the use of transdermal fentanyl in BHOC and to ensure it is in accordance with Bristol Palliative Care Collaborative (BPCC) guidelines

3. Objectives

- To retrospectively and prospectively identify all patients on transdermal fentanyl in the BHOC.
- To ascertain whether prescriptions were in line with BPCC guidance and recommendations from previous audits.
- To highlight recommendations and an action plan in light of audit results.

4. Standards

- Fentanyl patches should be prescribed to be applied every 72 hours.
- A breakthrough analgesic should be prescribed at the correct dose and interval and by the correct route and this should be adjusted when the fentanyl dose is changed in line with the BPCC guidelines.

When fentanyl dose is changed:

- The new dose should be calculated correctly and at stated time intervals using the conversion tables and advice on incorporating breakthrough medication use in the BPCC guidelines.
- Indication for dose change should be recorded in the medical notes.

5. Methods

- The audit was undertaken retrospectively from 1st May to 6th October 2008 and prospectively from 6th October to 1st December 2008.
- We aimed for a sample size of 20 patients.
- All inpatients prescribed transdermal fentanyl within the study period were identified using the controlled drug books on the wards and review of the medical notes and drug charts.
- A standardised proforma was used for data collection in free text format.
- The data was subsequently put into an Excel spreadsheet using a binary code system of 1= Yes and 0= No. The data was then analysed.

6. Results

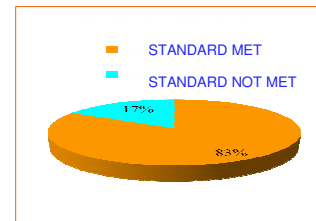
Table 1 below summarises the basic patient demographics.

CHARACTERISTICS	TOTAL NUMBER OF PATIENTS n=18
Male	n=7 38.8%
Female	n=11 61.1%
Age (mean ± SD,)	58.1 ± 16 yrs
Age (range)	28-84 yrs

STANDARD 1: Were fentanyl patches prescribed to be applied 72 hourly?

A: Yes in 15/18 (83%) cases. In 3/18 (17%) of patients there was no specific mention of 72 hours on the drug chart but patches were administered 72 hourly. (See Figure 1)

Figure 1: Standard 1 was met in 83% of patients.



STANDARD 2: Was a breakthrough analgesic prescribed using the correct route, dose and at the correct time interval?

A: Yes in 100% of cases, with the correct route used in 100%, correct dose in 94.44% (17/18), and the correct time interval in 88.89% (16/18). (See Figure 2)

Regarding the **incorrect dose** (n=1), hydromorphone was prescribed 1.3 – 2.6 milligrams hourly PRN whereas the correct dose calculated as per BPCC was 5.2 milligrams.

Regarding the **incorrect dose interval** (n=2), breakthrough analgesia was written up four hourly in one patient instead of one hourly, the other patient had no specific frequency documented.

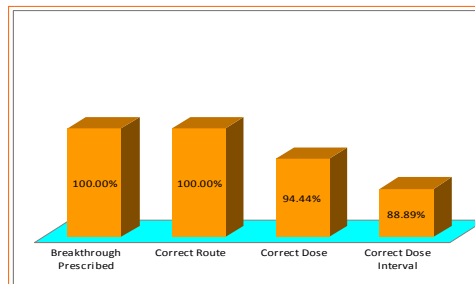


Figure 2

STANDARD 3: When the fentanyl dose was changed, was the new dose calculated correctly and at stated time intervals taking into account breakthrough analgesia?

A: The fentanyl dose was changed (increased) in 6/18 (33.33%). Of these the standard was met in 5/6 (83.33%). (See Figure 3)

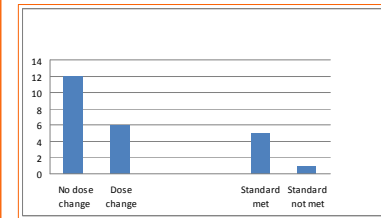
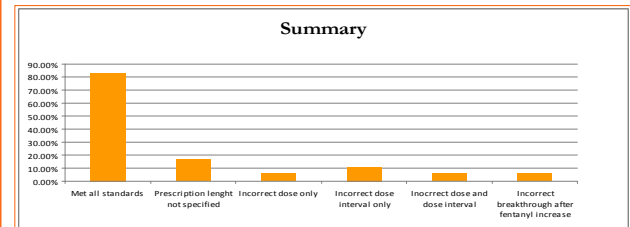


Figure 3: One patient did not meet the standard. The dose of fentanyl was increased from 12 to 25 micrograms/hour but the new dose of breakthrough analgesia was equivalent to a fentanyl patch strength of 50 micrograms/hour.

STANDARD 4: When the fentanyl dose was changed, was an indication recorded in the medical notes?

A: An indication for dose change was recorded in 100% (18/18).

GRAPHICAL SUMMARY OF RESULTS



7. Conclusions

- All patients received fentanyl 72 hourly yet in 3 cases this was not specified in the prescription.
- We are good at ensuring all patients have a breakthrough analgesia available, there is room for improvement in calculation of correct doses and administration at correct time intervals.
- When the fentanyl dose is increased it is possible to miscalculate the dose of breakthrough analgesia.

8. Recommendations

- Junior staff including; medical students, F1 doctors and F2/ST doctors should continue to be educated on the principles of prescribing transdermal fentanyl.
- All junior doctors in the BHOC should receive a copy of the BPCC guidelines on induction and be made aware that an electronic copy is available on the Trust Document Management System.
- The audit cycle should be repeated in due course aiming for a larger sample size.