

Febrile Neutropenia Early Discharge Pathway: design, implementation and sustainability

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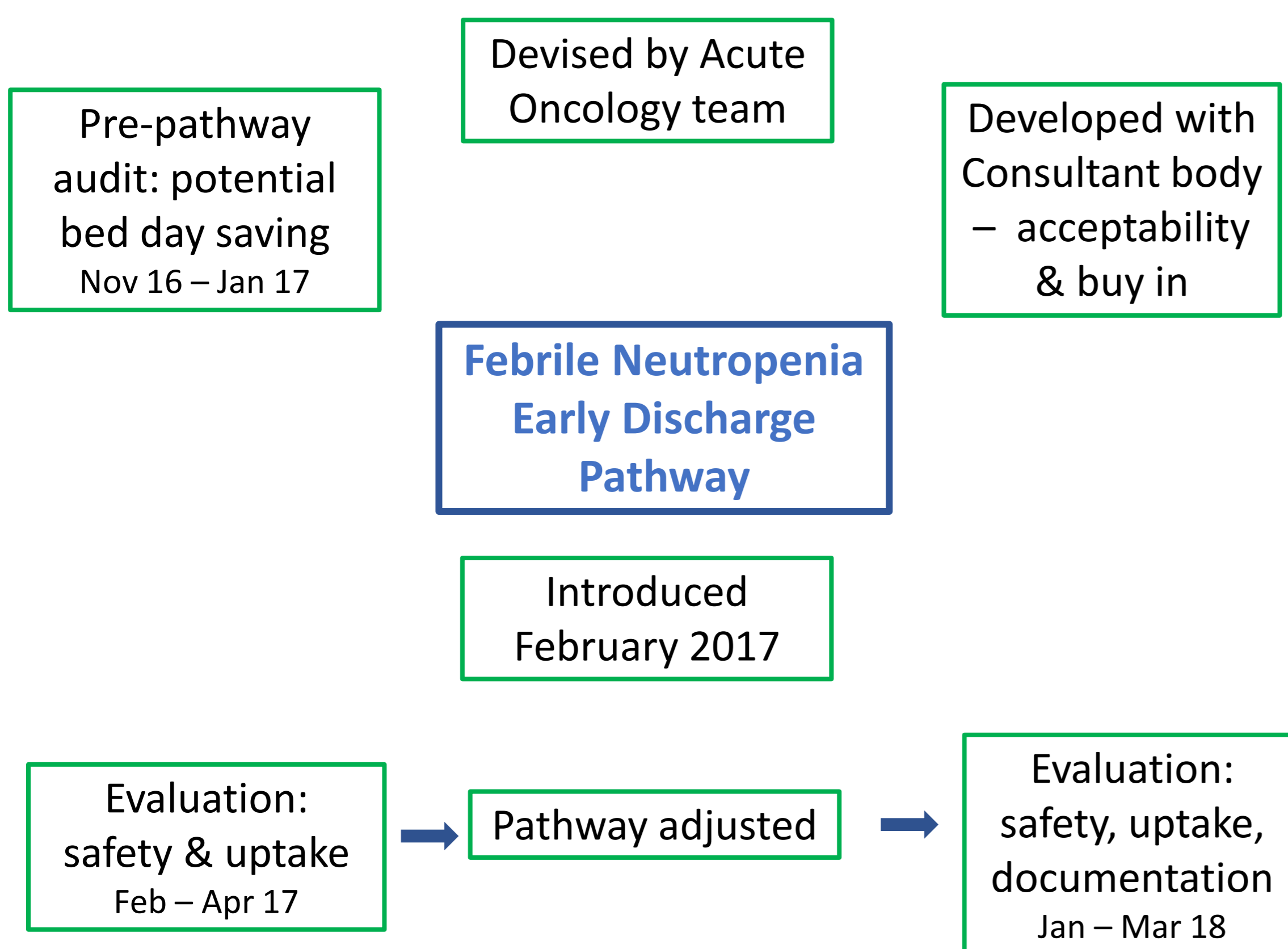
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Background

- Patients receiving chemotherapy are at risk of life threatening infection whilst neutropenic and encouraged to present to hospital if unwell or febrile.
- Many patients are found not to be neutropenic but those who are will be admitted, even if they are not clinically unwell.
- Traditionally patients are kept in hospital and treated with intravenous antibiotics and stimulating factors to promote bone marrow recovery.
- However, a subset of neutropenic patients remain well and can be diagnosed with “febrile neutropenia rather than “neutropenic sepsis”.
- The patients might be safely managed as outpatients. This is supported by NICE guidance in 2012, although no specific pathway was proposed.¹

Methods & Intervention



Eligibility for Early Discharge

- **Afebrile > 24hrs**
- **Completed 24hrs IV abx**
- **NEWS < 2 at discharge**
- **Deemed fit by Oncology Consultant or SpR**

- **Completed 12 hrs oral abx (removed after April 2018).**

References

[1] Evidence review: prevention and management of neutropenic sepsis in cancer patients 14. Inpatient versus ambulatory (non-hospitalised) management strategies. (Topic E2)
<https://www.nice.org.uk/guidance/cg151/evidence/evidence-review-188303582>

Results

- Prior to introduction of the pathway (Nov 2016 – Jan 2017) 3/16 patients fit the criteria for early discharge, a potential saving of 3 bed days. None of these patients re-presented within the 2 weeks following their discharge.
- In the first 3 months of the pathway (Feb – Mar 2017) 6/19 patients fit eligibility criteria, of whom 5 were discharged. Again none were readmitted. No patients who were well after 24hrs of IV antibiotics spiked a temperature or became unwell during the 12 hrs of oral abx, therefore this was removed from the pathway.
- In Jan - Mar 2018 all 3 eligible patients were discharged prior to their neutrophils reaching 1.0.
- Documentation of the pathway was during both evaluation periods with the pathway checklist frequently not present in patient notes.

Conclusions

- Discharge of well patients who remain neutropenic is safe and has potential value in improving patient quality of life and reducing length of stay. Although the savings are modest (estimated at 10-20 bed days/year) this has value in under pressure acute NHS hospitals.
- The pathway was deliberately conservative initially to ensure buy in from clinicians and reduce the risk of adverse events. Repeated monitoring of uptake and safety allowed the pathway to be adapted.
- The relative infrequency of suitable patients (approx. 2 per month) meant regular reminders were required to ingrain the pathway into standard care, with ward nurses and SpRs identified as the critical people to have on board.
- Documentation of the pathway is important to allow coding of early discharge to enable recognition by the hospital trust and improvement of this is our current focus.

