

The Highs and Lows of Febrile Neutropenia – Re-evaluating Febrile Neutropenia Management

Eden Weeks, B. Pharm (Hons)
The Canberra Hospital, ACT

Aim

To measure compliance with the local Febrile Neutropenia (FN) protocol in the emergency department, the haematology and oncology wards of a tertiary referral hospital, and to use these results to review and update the FN policy.

Background

Febrile Neutropenia is an oncological emergency that requires prompt treatment with appropriate broad-spectrum antibiotics and a thorough investigation into the source of infection to give each patient the best chance of survival. Relevant and up-to-date guidelines on FN management is imperative to optimise clinical outcomes in this vulnerable cohort of patients.

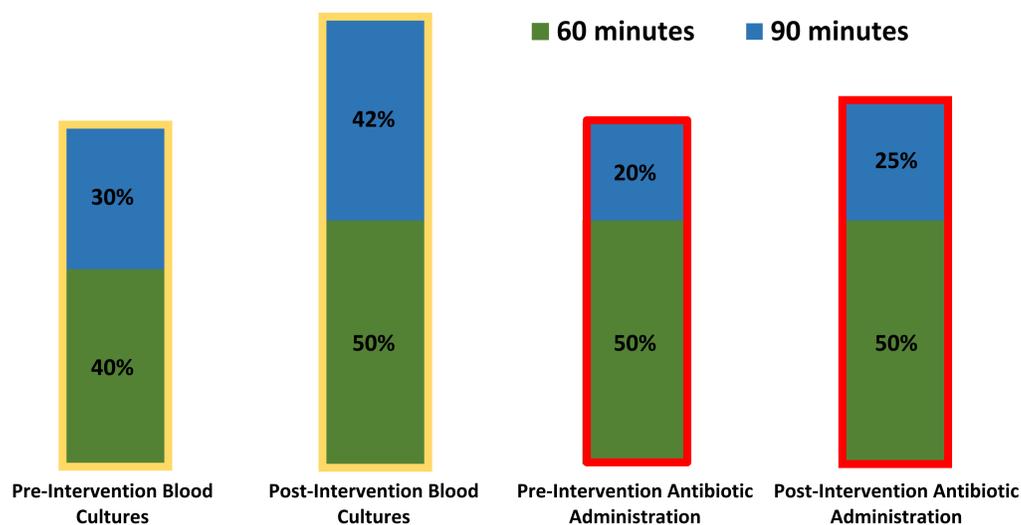
Results

Number of Patients Identified

Pre-Intervention	Post-Intervention
10	12

Table 1: Number of patients identified to be included in review

Compliance with FN Pathway Pre and Post Intervention



Method

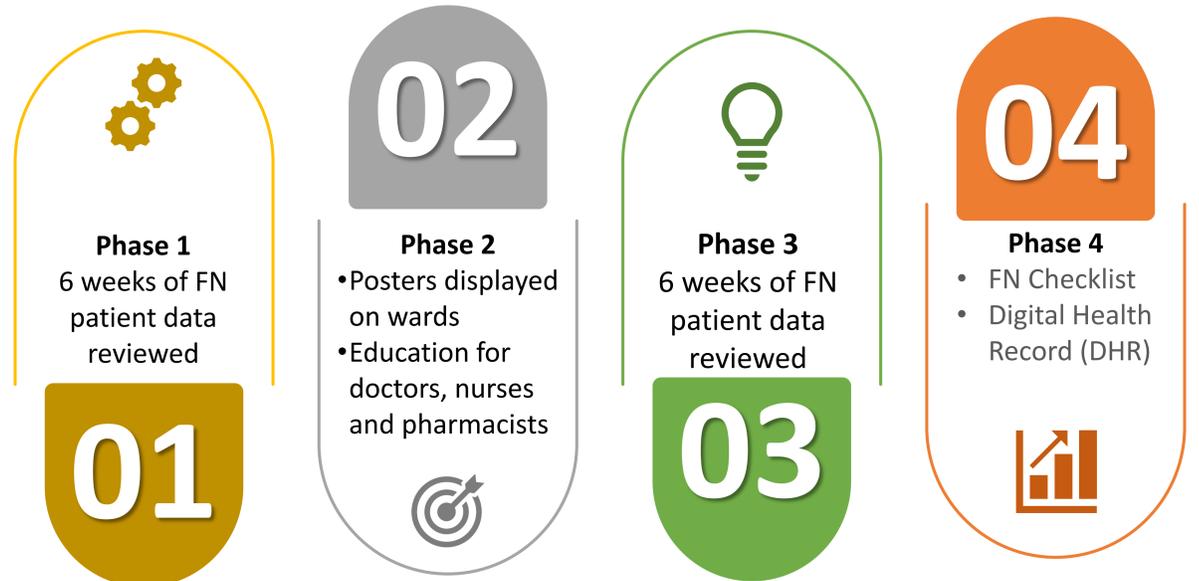


Figure 1: Flow chart summary of method

FN patient data was retrospectively collected (Phase 1) from 14 June 2021 to 16 July 2021 using the electronic medication management (eMM) system to measure compliance with the FN pathway. Information gathered included, time of initial fever; neutrophil count; lactate; time of blood cultures; and time to antibiotic administration.

Following baseline data collection an intervention was implemented (Phase 2). The intervention included delivery of education to staff, and placement of posters on the wards advising about the FN pathway, to raise awareness of the current policy.

A follow up audit (Phase 3) was conducted from 16 September 2021 to 27 October 2021.

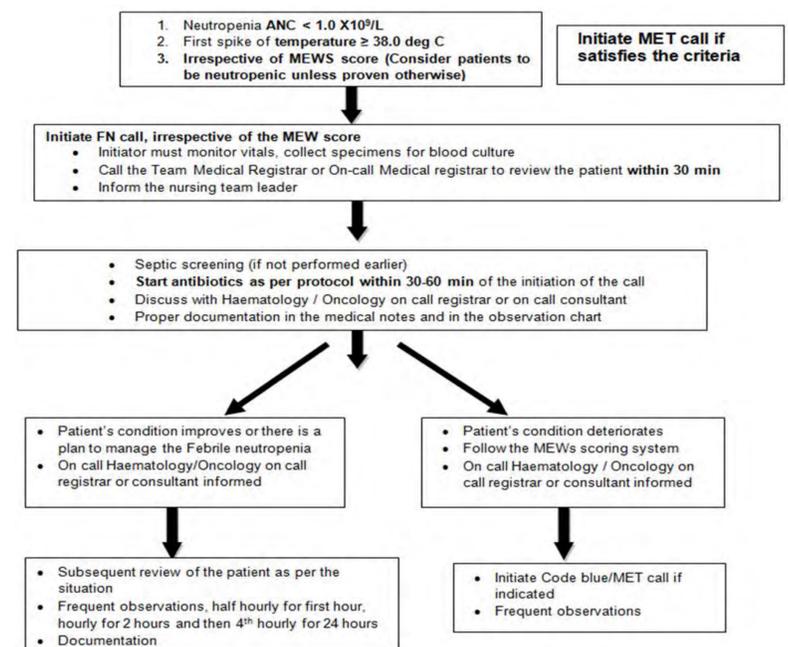


Figure 2: Flow Chart of the management of FN in Haematology and Oncology Patients as displayed on wards

Discussion

Improvement in antibiotic administration and blood cultures by 60 minutes was minimal. However, by the 90 minutes a more noteworthy improvement was seen indicating that while there remains room for improvement the management of FN patients is heading in the right direction.

This project was completed prior to the roll out of Digital Health Record (DHR) and the FN Checklist created was paper-based. This check list was to act as a prompt when conducting a workup of FN patients and to facilitate accurate auditing. With the implementation of a new DHR an “order set” now exists to bundle the necessary tests and empiric treatment for FN which should improve compliance with the FN pathway.

What's next?

A larger follow up audit over a longer period to review the management of FN patients and compare with original data now that the new DHR has been implemented.