

# Retrospective study on Haematology patients with

# Febrile Neutropenia post chemotherapy

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## Introduction

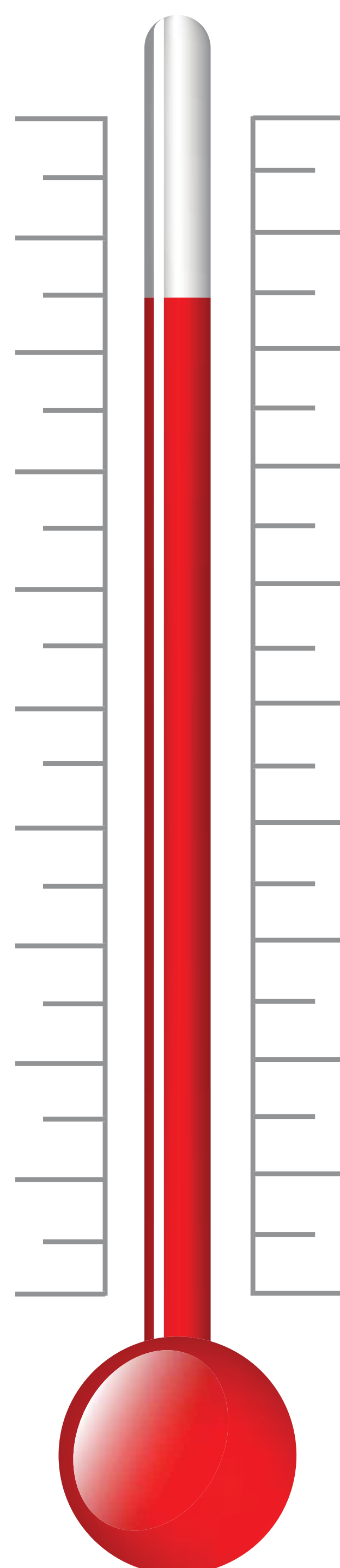
Haematology patients with Febrile Neutropenia (FN) following chemotherapy experience delays in antibiotic administration and are linked to poorer clinical outcomes. There are reports of poor adherence to FN pathways despite treatment pathways. Patient outcomes due to delays and rate of adherence to FN pathways is unknown due to insufficient evidence.

## Aim

Examine management of patients with Febrile Neutropenia (FN) within inpatient, and outpatient areas.

## Methods

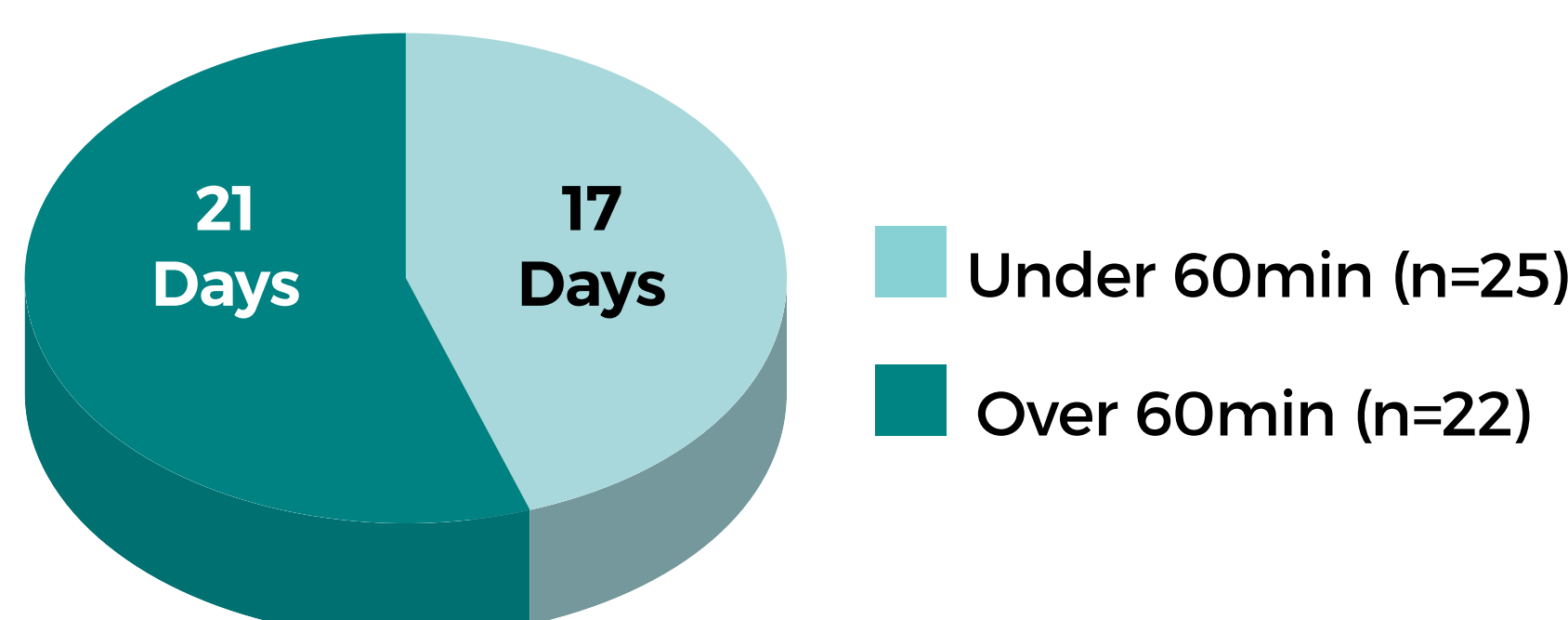
Retrospective Audit (November 2017 to November 2018) of haematology patients with FN (temperature  $\geq 38^\circ$  and neutrophils  $<1.0 \times 10^9/L$ ) post chemotherapy, 18 years or older. Excluded medical oncology, and 17 years or under. Data retrieved through Clinical Records Integrated System. Time of temperature spike to time of antibiotic, correlated with length of hospital stay (LOS), intensive care admission, mortality, blood culture results, malignancies and demographics were recorded.



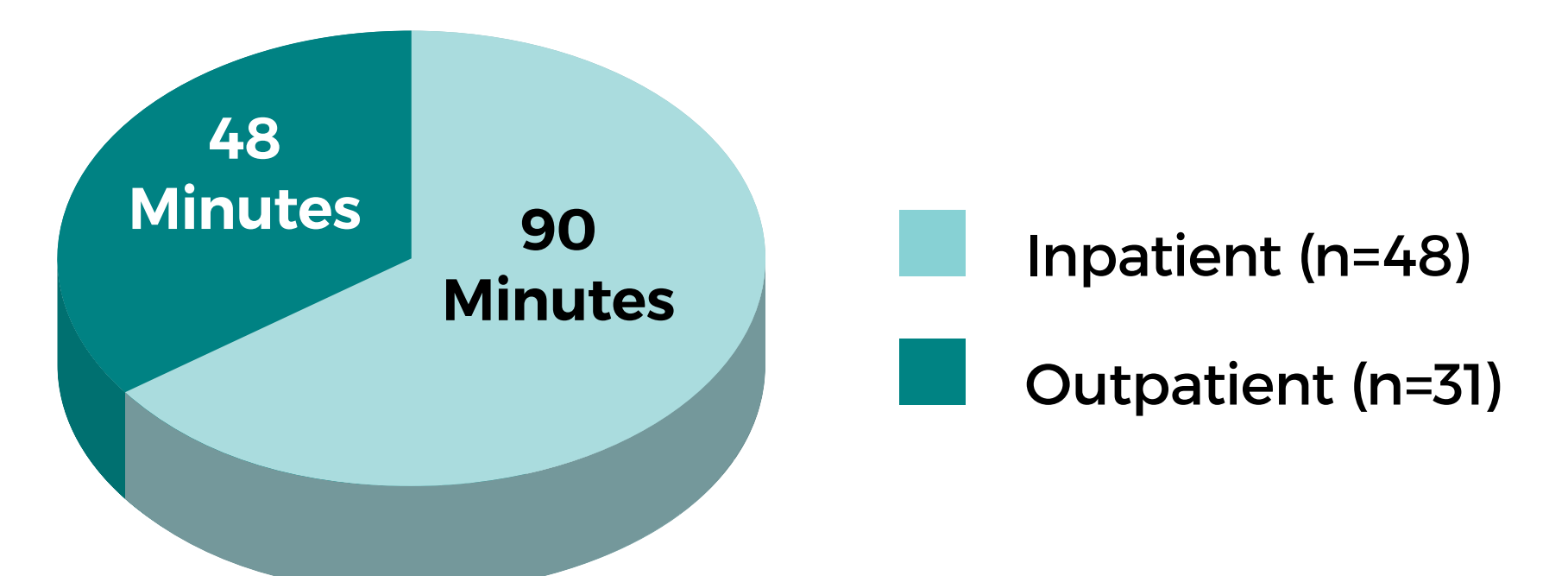
## Results

Mean time for inpatients was  $90 \pm 15$  minutes ( $n=48$ ) and  $48 \pm 5$  minutes ( $n=31$ ) mean time from medical officer review for outpatients. Inpatients given antibiotics under 60 minutes showed mean LOS of  $17 \pm 1$  days, patients given antibiotics over 60 minutes LOS was  $21 \pm 3$  days. Outpatients given antibiotics under 60 minutes showed mean LOS of  $12 \pm 2$  days. Outpatients given antibiotics over 60 minutes had mean LOS of  $9 \pm 3$  days.

### Impact of delayed antibiotic therapy



### Mean time for antibiotic administration



## Conclusion

The study highlighted antibiotic delays were linked to medical officer review. Therefore, a medication standing order is imperative for timely care.

## Significance

Further research is needed to examine causes of delays and the impact of standardised clinical pathways that allow direct care orders to make antibiotics accessible for prompt delivery.

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Conflict of interest statement: The authors have no financial conflicts of interest to declare.

### Ethics

Ethics approval for the study was obtained from the ACT Health Human Research Ethics Committee (2018/ETH00606). Approved on 30 January 2019 by the ACT Health Human Research Ethics Committee's Low Risk Sub-Committee.

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