# Is there a 'weekend effect' in the door to needle time of antibiotics administration in cancer patients presenting with suspected neutropenic sepsis

**Descriptor:**

An audit that aims to assess the quality of management of neutropenic sepsis during the weekends compared to the weekdays against the NICE recommended standards.

**Background:**

There has been growing interest in the quality of clinical care available in the NHS at weekends in what has been termed the “weekend effect”. Neutropenic sepsis is an oncological emergency requiring prompt antibiotics administration in order to improve outcomes. NICE recommends a door to needle time (DTN) of  less than an hour for all suspected cases. This audit aims to assess the management of neutropenic sepsis during the weekend vs weekdays against the NICE standards.

## The Cycle

**The standard:**

100% receive antibiotics within an hour during both weekdays and weekends.

**Target:**

100% performance.

## Assess local practice

**Indicators:**

Proportion of patients meeting recommended target and median door to needle times.

**Data items to be collected:**

Medical records  between January and December 2017 will be retrosepctively reviewed and analysed.  DTN is defined as the interval between presentation and antibiotics administration. Weekend will be limited to Saturdays and Sundays. Comparison of the proportions of patients meeting the target during the weekend vs weekdays will be  assessed by Fishers Exact test while differences in median DTN  assessed using the Mood Median test.

Data to be extracted include background maligaancy, date of last chemotherapy,date of presentation with suspected neutropenic sepsis,  presentation symptoms, time of presentation, time of antibiotics administration.

**Suggested number:**

50

**Suggestions for change if target not met:**

Departmental presentation in order to raise awareness about a weekend effect/compromise in clinical care during the weekends if found.

Reviewing possible reasons for target not being met such as under stafffing during the weekends vs weekdays.

Clinical governance and liaising with management depending on factors identified.

**References:**

1. 1.     Freemantle Nick, Ray Daniel, McNulty David, Rosser David, Bennett Simon, Keogh Bruce E et al. Increased mortality associated with weekend hospital admission: a case for expanded seven day services? BMJ 2015; 351 :h4596

2.     2. NICE guidelines: Neutropenic sepsis: prevention and management in people with cancer, available at: <https://www.nice.org.uk/guidance/cg151>

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