Improving the immediate management of suspected neutropenic sepsis (SNS) in the Epsom Hospital Emergency Department (ED): Audit of door to delivery time for antibiotics following the implementation of a SNS immediate management proforma and audit tool.


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Background

The NCEPOD report “Shock: On sober reflection” provided a critical review of the care of cancer patients who died within 30 days of receiving systemic anti-cancer therapy and issued recommendations for improvement in the delivery of care. The audit examined the delivery of care of patients with suspected neutropenic sepsis (SNS) and assessed the impact of introducing an immediate management protocol and audit tool.

Aim

The audit was undertaken to assess the effectiveness of the new SNS policy on the delivery of antibiotic delivery in the Epsom Hospital ED.

Methods

NHS Trust SNS immediate management proforma was completed prospectively for each patient with SNS who attended the ED. A proactive approach was adopted to identify patients with suspected neutropenic sepsis through communication with the Acute Oncology Service, follow-up of events, and other patient selection criteria. The proforma was completed for each patient with SNS who attended the ED.

Practice Change

Problems identified, patient education, staff training, Audit oncology service, Standardised referral system, Dedicated specialist nurse, Triage with local cancer unit.

Patient advice card

- Patient education
- Patient referral
- Parental support
- Access to oncology service
- Dedicated specialist nurse
- Triage with local cancer unit.  

Results

In the 2011 audit period (immediately following implementation of the new policy), cases of SNS were identified, 67% had antibiotics within 1 hour, (Graph 1) 99% within 4 hours. Of 30 cases with confirmed neutropenia, 20 had antibiotics within the hour. Repeat audit during January to June 2012 identified 16 cases of SNS: 90% had antibiotics within 1 hour and 100% within 6 hours. Of 16 cases with confirmed neutropenia, 10 had antibiotics within the hour. (See Graphs of Results).

Conclusion

Implementation of NCEPOD and National Chemotherapy Advisory Group (NCAG) recommendations has resulted in improved time to delivery time for antibiotic administration in patients with SNS presenting to Epsom Hospital ED.

References


Management Protocol (Box 1)

Suspected Neutropenic Sepsis Immediate Management Protocol

- Tazocin 4.5g IV qds
- Meropenem 1g IV tds
- Ciprofloxacin 400 mg bd
- Gentamicin at 5mg/kg OD
- Do not delay antibiotics whilst awaiting blood results.

Graphs of Results

(1) Percentage of SNS patients receiving antibiotics within one hour

(2) A graph showing the percentage of SNS patients receiving antibiotics within one hour

(3) A graph showing the percentage of SNS patients receiving antibiotics within four hours

(4) A graph showing the percentage of SNS patients receiving antibiotics within six hours