



Neutropenia

- Neutropenia is classified as mild ($1-1.5 \times 10^9/l$), moderate ($0.5-1 \times 10^9/l$), or severe ($< 0.5 \times 10^9/l$).
- Risks of infective complications are closely related to the depth of neutropenia: a major increase in infections is seen with counts of $< 0.5 \times 10^9/l$ while some increased risk of infection is seen with counts of 0.5-1.0.
- Causes of neutropenia include viral infections, sepsis, drugs, excessive alcohol consumption, autoimmune disorders and bone marrow failure due to aplasia, malignant infiltration or severe B12/folate deficiency.

NOTE: Neutrophil counts of $1-1.8 \times 10^9$ are often normal for patients of African and Middle Eastern origins

Patients with active sepsis in association with unexplained neutropenia $< 1 \times 10^9$ should be discussed with the duty haematologist to arrange appropriate direct assessment

Information Required

- Degree and duration of neutropenia
- Presence of red flags
- Frequency, severity and type of infections
- Medications
- Alcohol
- Autoimmune conditions

Investigations Required

- Complete blood picture with film review
- Full biochemistry
- Autoimmune screen including ANA, ENA, dsDNA
- B12 and folate
- Viral serology including EBV, CMV, hepatitis B/C, HIV

Fax Referrals to

Flinders Medical Centre Haematology Fax: 8404 2152

Red Flags

- Progressive, unexplained neutropenia
- Associated with other cytopenia's, lymphadenopathy and/or splenomegaly
- Recurrent infections

Suggested GP Management

- Review and consider discontinuation of potentially precipitating medications
 - le high dose omeprazole, anti-psychotics (clozapine, olanzapine), NSAIDS (ibuprofen, indomethacin), anti-gout (allopurinol, colchicine, methotrexate, sulphasalazine)
- Repeat CBE in 2-4 weeks time – viral neutropenias are frequently transient. May occasionally persist for several months.
- Mild neutropenia ($1-1.5 \times 10^9/l$), patient well, neutropenia non-progressive, no other findings on CBE – no referral required. Monitor on three monthly basis

Clinical Resources

- Boxer, A. *How to approach neutropenia*. American Society of Haematology. Dec 8, 2012. Vol. 2012 no.1 174-182
<http://asheducationbook.hematologylibrary.org/content/2012/1/174.full.pdf>

Patient Resources

- Uptodate (www.uptodate.com)
 - PI: Neutropenia (The Basics)
 - PI: Neutropenia and fever in people being treated for cancer (The Basics)

General Information to assist with referrals and the and Referral templates for FMC and RGH are available to download from the SALHN Outpatient Services website www.sahealth.sa.gov.au/SALHNoutpatients

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1.0	August 2014	August 2016	Original