

Advice and guidance for Haematology results

**1) Red Blood Cells**

**High haemoglobin / haematocrit:** [see erythrocytosis guidance](#)

- a) Persistent on two consecutive blood tests with repeat when well hydrated.
- b) Secondary causes reviewed. N.B. check not on testosterone / anabolic steroid use.
  - a. Check oxygen saturations, ferritin, erythropoietin levels, U+Es, LFTs
  - b. If no obvious secondary cause is found and especially if the ferritin and erythropoietin levels are low or low normal a haematology referral should be considered to investigate for a primary cause.

**Low haemoglobin (anaemia):** [See anaemia guidance.](#)

**Microcytic**

- a) Please check ferritin, iron studies, reticulocytes. For iron deficiency please refer to gastroenterology if appropriate.
- b) If haemoglobinopathy suspected please check haemoglobin electrophoresis. For beta thalassaemia trait, sickle cell trait and alpha thalassaemia trait no specific haematology follow up is required. Please discuss if any doubt.

**Normocytic**

- a) Please check ferritin, iron studies, b12 / folate, reticulocytes, blood film, CRP, U+Es, LFTs.
- b) Consider whether myeloma screen indicated.

**Macrocytic**

- a) Please check B12/folate, LFTs including GGT, blood film, reticulocytes, TFTs. Review alcohol history.
- b) Consider whether myeloma screen indicated.

**2) Platelets**

**High platelets (thrombocytosis):** [see thrombocytosis guidance](#)

- a) Please check that persistent
- b) Please check CRP (check not reactive) and ferritin / iron studies (not reactive to iron deficiency)
- c) If persistent with no reactive cause or associated symptoms (erythromyalgia or aquagenic pruritis) consider referral.

**Low platelets (thrombocytopenia):** [see thrombocytopenia guidance](#)

- a) If platelets >100 usually does not warrant referral
- b) Investigations: b12 / folate / LFTs including GGT / viral (hepatitis B and C, HIV) / blood film / clotting screen / autoantibody screen (ANA, antiphospholipid antibodies).

### 3) White blood cells

#### **Low neutrophils (Neutropenia):** [see neutropenia guidance](#)

- a) Mild neutropenia is commonly seen following a viral illness. Also review medications as a possible cause and ethnic group.
- b) If no obvious cause or possible viral cause repeat FBC with b12/folate in 4-6 weeks unless clinically indicated sooner.
- c) If persistent mild neutropenia consider discussing further investigation with haematology. If persistent moderate neutropenia or severe neutropenia consider referral or urgent discussion.

#### **High Neutrophils (Neutrophilia)**

- a) Numerous causes commonly infection, inflammation, pregnancy, smoking and medications e.g. corticosteroids but includes primary haematological problems.
- b) Need history and examination to check for secondary causes
- c) First line investigations should include blood film, CRP, autoimmune profile and pregnancy test in women (if appropriate).

#### **Low Lymphocytes (lymphopenia):** [see lymphopenia guidance](#)

- a) Non-specific with a large differential
- b) Rarely as an isolated finding warrants a haematology referral
- c) Initial investigations for persistent lymphopenia include considering b12/folate, U+E, LFTs including gamma GT, virology (hepatitis B and C, HIV), serum immunoglobulins and protein electrophoresis, autoantibody screen (ANA, antiphospholipid antibodies).

#### **High lymphocytes (Lymphocytosis):** [see lymphocytosis guidance](#)

- a) Reactive causes common
- b) Key test is the blood film
- c) A lymphocyte count  $>10 \times 10^9$  is more likely to be clonal
- d) If asymptomatic with lymphocytes  $<30 \times 10^9$  with normal examination and no anaemia or thrombocytopenia can often be monitored in general practice e.g. 6-12 monthly FBC. [See Chronic lymphocytic leukaemia guidance.](#)

#### **High monocytes (Monocytosis)**

- a) Reactive causes including chronic infections, chronic inflammatory conditions e.g. inflammatory bowel disease, rheumatoid arthritis and malignancy.
- b) If persistent particularly with other FBC abnormalities consider myeloproliferative disorders
- c) Initial investigations include blood film and inflammatory markers.

#### **Low monocytes (monocytopenia)**

- a) Absolute persistent monocytopenia is rare and especially if splenomegaly / neutropenia consider discussion or referral to haematology ? Hairy cell leukaemia

- b) Other causes include following corticosteroids and with acute stress including infection and haemorrhage.
- c) Initial investigations should include a blood film.

**High basophils (Basophilia)**

- a) Usually associated with myeloproliferative neoplasms
- b) Rarely reactive
- c) Consider discussion / referral

**High eosinophils (eosinophilia): see eosinophilia guidance**

- a) Usually due to secondary causes including infections (especially parasites), drugs, asthma, atopic dermatitis, acute urticaria, connective tissue disease, solid malignancy and respiratory disease.
- b) Rarely due to primary haematological pathology but to ensure that not missed suggest referral if: Persistent eosinophilia for >3months without an obvious cause after investigation. Any level of eosinophilia with evidence of end-organ damage (cardiac, gastrointestinal, pulmonary or neurological symptoms) which is not related to another underlying medical condition. Eosinophils >5 where the cause is not immediately apparent

**4) Splenomegaly: see splenomegaly guidance**

- a) Mild splenomegaly has a large differential diagnosis including infection, congestive (cirrhosis, heart failure), inflammatory, malignant and infiltrative disorders.
- b) Initial investigations include FBC and film, U+Es, LFTs and reticulocytes. Further investigations and management is dependant on the likely cause.

**5) Symptoms**

**Alcohol induced lymph node pain**

- a) Refer as need to investigate for Hodgkin's lymphoma

**Sweats: See guidance.**

- a) Very non-specific symptom on its own
- b) Thorough history and examination crucial to narrow down likely cause
- c) Initial investigations should be based on the likely causes from the signs and symptoms.