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 x 10^9 is more likely to be clonal
d) If asymptomatic with lymphocytes <30 x10^9 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.