Guidelines for GP referral and further investigations of patients with elevated haematocrit

Primary Polycythaemia is rare, so consider other causes first

NB: Elevated haemoglobin/haematocrit has a wide differential diagnosis including:

Secondary causes: Obstructive sleep apnea, hypoxic lung disease, erythropoietin-secreting tumors, drugs (diuretics, SGLT2 inhibitors, testosterone and anabolic steroids), smoking, alcohol

Relative polycythaemia resulting from plasma depletion

Primary proliferative polycythaemia (polycythaemia vera)

Co-existing iron deficiency can sometimes mask the presence of primary polycythaemia

Criteria for urgent referral for 2 WW clinic in Haematology

- **Extremely raised haematocrit**
  (Male > 0.600, Female > 0.560) in the absence of congenital cyanotic heart disease
- **Persistently raised haematocrit**
  (Male > 0.520, Female > 0.480) in association with:
  - Recent arterial or venous thrombosis
    (including DVT / PE, CVA / TIA, MI / unstable angina, PVD)
  - Neurological symptoms
  - Visual loss
  - Abnormal bleeding
  - Pruritis
  - Splenomegaly
  - Elevated white cell and platelet counts

Criteria for routine referral for Haematology

- **Persistent unexplained elevated haematocrit (more than 8 weeks)**
  (Male > 0.520, Female > 0.480)

Appropriate investigation in primary care for patients not meeting criteria for urgent referral

- Confirm with repeat FBCs over time (uncuffed blood samples)
- Modify known associated lifestyle factors: smoking, alcohol, consider changing thiazides to non-diuretic anti-hypertensive agents
- Screen for diabetes

Discharge Policy

- Following completion of investigation, only those cases requiring venesection or cytoreductive therapy will remain under outpatient follow-up
- All other cases will be discharged with a suggested frequency of FBC monitoring and a clearly-stated threshold haematocrit for re-referral

Dr C Wykes, Dr C Grist, Nov 2017
Dr S Zahan, Updated in Jan 2025
Based on BSH guideline