Haematology dilemma's to refer or not to refer ?

NWL Pathology GP Study Day

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Learning Objectives

1. Investigate and manage patients with an abnormal FBC indices
2. Discuss the indications for DOACs & how to initiate therapy
3. Understand the secondary causes of polycythaemia
4. How to investigate patients with high ferritin
5. Investigation of patients who may have a haemoglobinopathy
6. How and where to refer patients who may have lymphoma / myeloma

Anaemia

Defined

Hb <13g/dl ♂

Hb <11.5g/dl ♀

Look at MCV

Look at RDW

Careful history

- diet
- bleeding
- drugs
- family history

Blood film and retics

Ferritin / vitamin B12 / folate

Serum iron / transferrin saturation

(more informative in inflammatory states: iron replete if TSats >25-30%)

Immunoglobulin / Serum & Urine Protein Electrophoresis

U+E /LFT

Monitor FBC for progression

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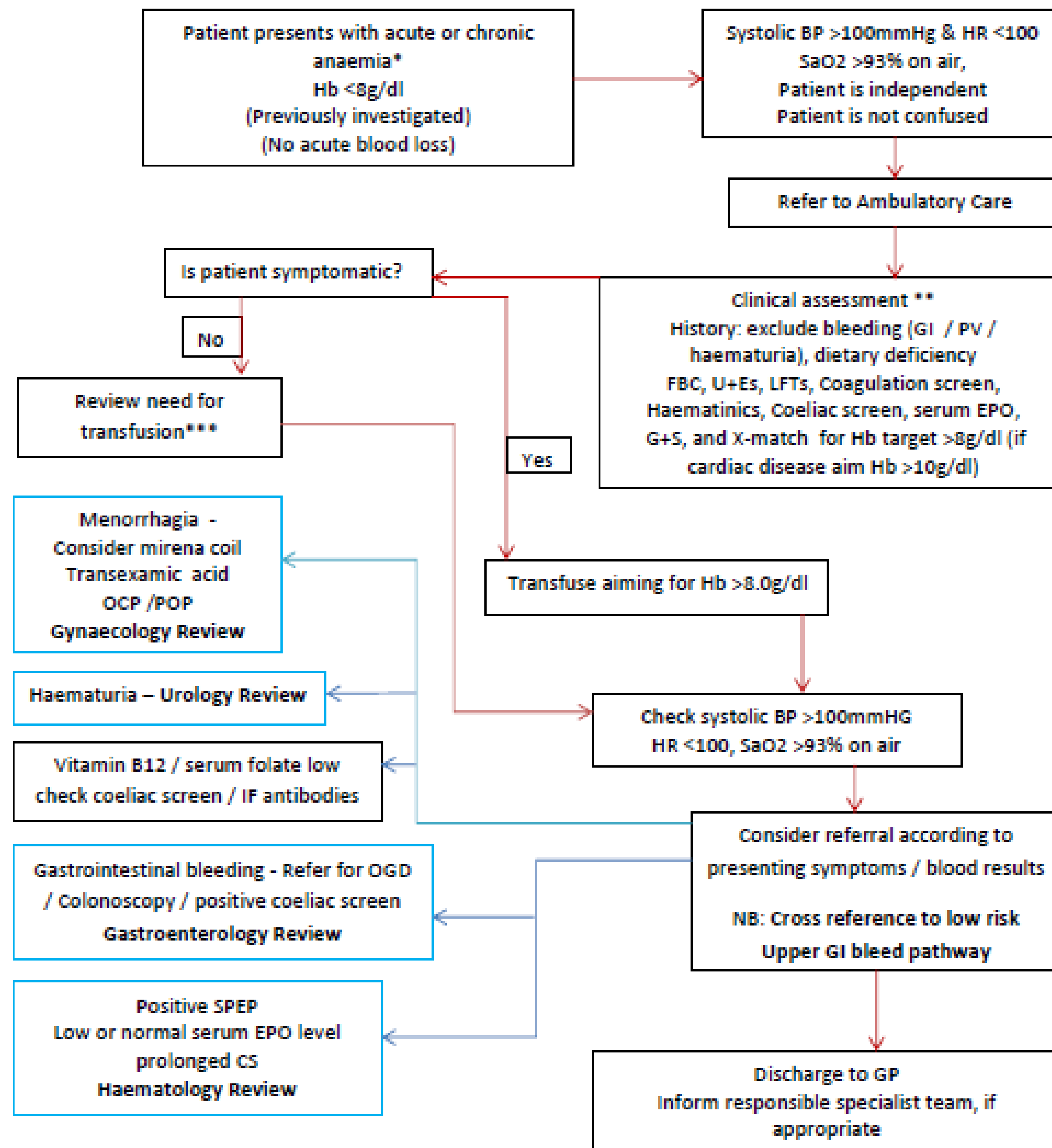

?Iron Intolerant

Check diet / compliance

Treat side effects (laxatives, anti-emetics)

reduce dose

alternate days

Try different preparations (tablets / liquids)

Add Ascorbic acid 100mg tds

Avoid concurrent tea / chapatti – gap of 2hours

Refer if

Persistent unexplained anaemia

Compliance – not an issue

Iron deficiency with sub-optimal response to oral iron + ascorbic acid after 8weeks

? Bleeding disorder i.e. vWD

Macrocytosis

1. ETOH
2. Diet
3. Drug

Blood film
Reticulocytes
Liver / Thyroid function
Vit B12 /folate (intrinsic factor antibodies & coeliac screen)
Immunoglobulin / Serum Protein & Urine electrophoresis
Raised MMA reflects reduced B12
Vit B12 >300pg/ml – adequate stores

Urgent	Routine	Do not refer
Suspected MDS based on blood film report (send to HH)	MCV >100 + cytopenia (excluded B12/folate deficiency Persistent unexplained MCV >105fL	Uncomplicated Vit B12 / folate deficiency

Hydroxycobalamin 1mg IM x6 injections over 2 weeks , then 3 monthly
Cyanocobalamin 100mcg orally

Neutropenia

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Blood film

Autoimmune screen

Viral infections – repeat in 4 weeks

Drugs – stop offending drug if symptoms of infection / recurrent infections

Urgent	Routine	Do not refer
Neutrophils < 1.0 - Recurrent infections - Has fever – needs IV antibiotic – send to A+E	Neutrophils <2.0 Recurrent infections (> 3 in 6 months)	Asymptomatic patients from Middle East Africa Afro Caribbean
Neutrophils <1.0 in association with other Cytopenias Hepatosplenomegaly lymphadenopathy		

Thrombocytopenia

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Blood film (bleep 9071 Lab SpR)

Exclude excessive ETOH / drugs

Check / iron studies/ vitB12 / folate /HIV/ hepatitis serology /Autoimmune screen

H Pylori in stool antigen - treat & repeat FBC in 4 weeks

Immediate	Urgent	Routine
Platelet <20	Platelet <50	Persistent platelet > 50 and stable and no cause found
Platelet <50 and bleeding or excessive bruising	Platelet 50-100 in association with anaemia/ leukopenia /splenomegaly / lymphadenopathy Pregnancy Surgery planned	History of thrombosis

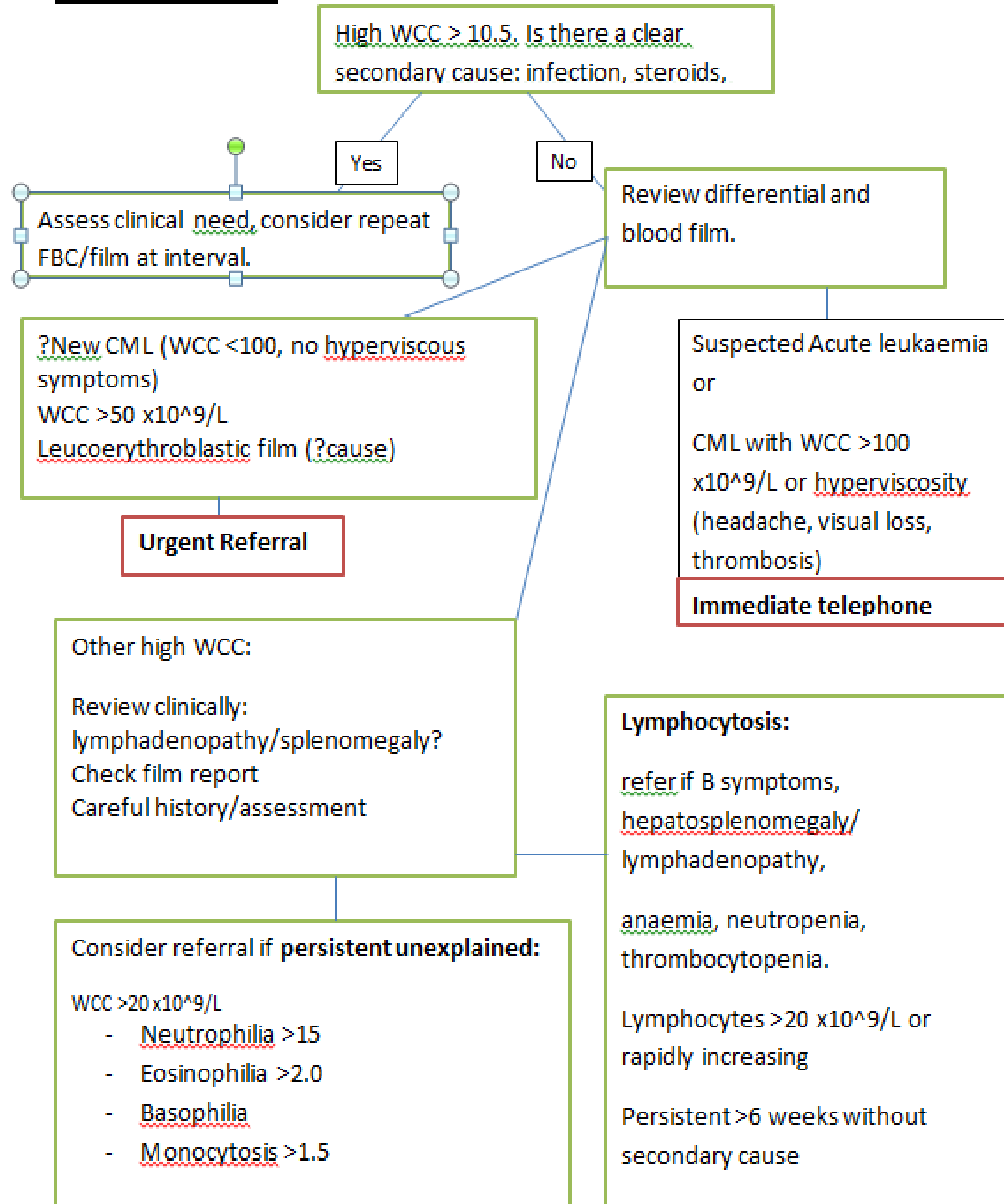
Leucocytosis

Ask for blood film, (bleep 9071 Lab SpR)

Exclude hepato-splenomegaly & lymphadenopathy

Immediate	Urgent	Routine	Do not refer
Suspected new leukaemia	Leucoerythroblastic film	Persistent raised wbc >20 Neut >15 Mono>1.5 Eo >1.5 Basophilia	High Wbc: infection (acute or chronic) Malignancy Smoker Inflammatory disease
New CML Wbc >100 Hyperviscosity symptoms	New CML Wbc 30-50		If on steriods
	Unexplained wbc > 50		

Leucocytosis



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Lab SpR
Blp 9071

All Haem-Onc Referrals
Hammersmith
Hospital

Indication for DOAC

Non valvular AF with >1 risk factors
DVT / PE

eGFR
>30mls/min/1.73m^2

Risk Factors
Prior stroke / TIA
Age ≥75
HT
DM
Symptomatic HF (NYHA class ≥II)

	Rivaroxaban	Apixaban (>80yrs, body wt <60 kg, high bleeding risk, Cr >133 umol/L)
AF	20mg daily	5mg BD
DVT /PE	15mg BD for 21 days, then 20mg (15mg od if eGFR<50)	10mg BD for 7 days, then 5mg BD
Prevention of recurrent VTE	---------------------------------- -	2.5mg BD
Prevention of VTE in Hip Sx Knee Sx	 10mg OD for 35/7 10mg OD for 14/7	 2.5mg BD 32-38 days 2.5mg BD 10-14 days

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DOAC Initiation

Use referral form

Seen within a week

- next available slot

	Site	
Monday	St Marys Hospital	AM new pts
Tuesday	St Charles Hospital	
Wednesday	Queens Park Healthcare centre	
Thursday	St Marys Hospital	AM new pts
Friday	Admin / MDT	

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REFERRAL FORM FOR THE ANTICOAGULANT CLINIC

1. TO OPTIMISE THE CARE OF YOUR PATIENT, PLEASE COMPLETE ALL SECTIONS OF THIS REFERRAL FORM AND FAX TO:
ST MARYS HOSPITAL: 020 331 23386 (fax)
HAMMERSMITH HOSPITAL: 020 331 34755 (fax)
2. Telephone the relevant clinic to confirm receipt of referral and book an appointment for the patient. Until the patient is reviewed in the relevant clinic, anticoagulation control is the responsibility of the referring clinician.
St Mary's Hospital 0203 312 6033 (tel)
Hammersmith Hospital 020 3313 4345 (tel)
3. TRANSPORT FOR THE FIRST APPOINTMENT MUST BE ARRANGED BY THE REFERRING TEAM
4. PLEASE NOTE PATIENTS ADMITTED ALREADY TAKING WARFARIN MUST ALSO BE RE-REFERRED.

HOSPITAL NUMBER:
SURNAME:
FORENAME:
DATE OF BIRTH:
ADDRESS:
TELEPHONE NO:

WARD/DEPT:
GP NAME:
GP ADDRESS:
GP TEL:

INDICATION FOR ANTICOAGULATION:

INR TARGET RANGE:(See back of form for assistance)
2.0 – 3.0 2.5 - 3.5 3.0 – 4.0

DATE OF STARTING ANTICOAGULANT:

Date for DC cardio version:

PROPOSED DURATION OF ANTICOAGULATION:
6 WEEKS 3 MONTHS 6 MONTHS
12 MONTHS LONG TERM Other:

Do you wish the clinic to stop treatment at the end Of this period?
YES: NO:

Has the patient had a recent FBC, renal & liver function test?
YES: NO:

IS PATIENT ON AN ANTIPLATELET AGENT?
E.g. Aspirin / Clopidogrel
YES: NO:
If Yes, do you wish this to continue? Yes: No:

If so, please indicate the platelet count:
Creatinine:
Liver function:
Please indicate if abnormal.

Risk Factors For Bleeding:

Drugs and Dosage on Discharge:

NAME OF REFERRING CONSULTANT:

NAME, SIGNATURE AND BLEEP OF DOCTOR FILLING IN FORM:

Date:

Polycythaemia

History: Smoking (tobacco or shisha)

Dehydration

ETOH excess

Thiazides diuretics / antiHT drugs

Screen for diabetes

Check FBC on un-cuffed sample after patient has drunk 1.5L water

Urgent	Routine	Do not refer
Male PCV >0.6 Female PCV > 0.54 In absence of congenital heart disease	Persistent Male PCV 0.51 Female PCV 0.48 In association splenomegaly pruritus high wbc / platelets	Dehydration Excess ETOH / smoking Drug related (thiazides etc.) Cyanosis heart disease
Male PCV 0.51 Female PCV 0.48 In association of recent arterial or venous thrombosis, neurological symptoms, bleeding, visual loss		

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High Ferritin

Check family history – Haemochromatosis

Check serum iron and transferrin saturation on **fasting** sample

Exclude fatty liver / inflammation/ infection/ liver disease/ ETOH excess/ Malignancy

Urgent	Routine	Do not refer
Transferrin saturation >50% with unexplained end organ damage Diabetes Congestive cardiac failure Hypogonadism Liver dysfunction	Transferrin saturation >50% on repeat fasting sample and no evidence of end organ damage	If Transferrin saturation < 50% and no FH for Haemochromatosis

Haemoglobinopathy

Check family history Sickle cell/ Thalassemia /G6PD deficiency

Check blood film

Haemoglobinopathy screen

Urgent referral	Routine referral	Do not refer
Acute sickle crisis- A+E	Thalassemia intermedia	Alpha Thalassemia trait with normal Hb
Thalassemia Major	Hereditary Spherocytosis / G6PD / Pyruvate Kinase deficiency with Hb >80g/l	Beta Thalassemia Trait with normal Hb
Hereditary Spherocytosis or Elliptocytosis / G6PD / Pyruvate Kinase deficiency with Hb < 75g/l	HbSS / HbSC / HSbeta Thalassemia - well	

Lymphadenopathy

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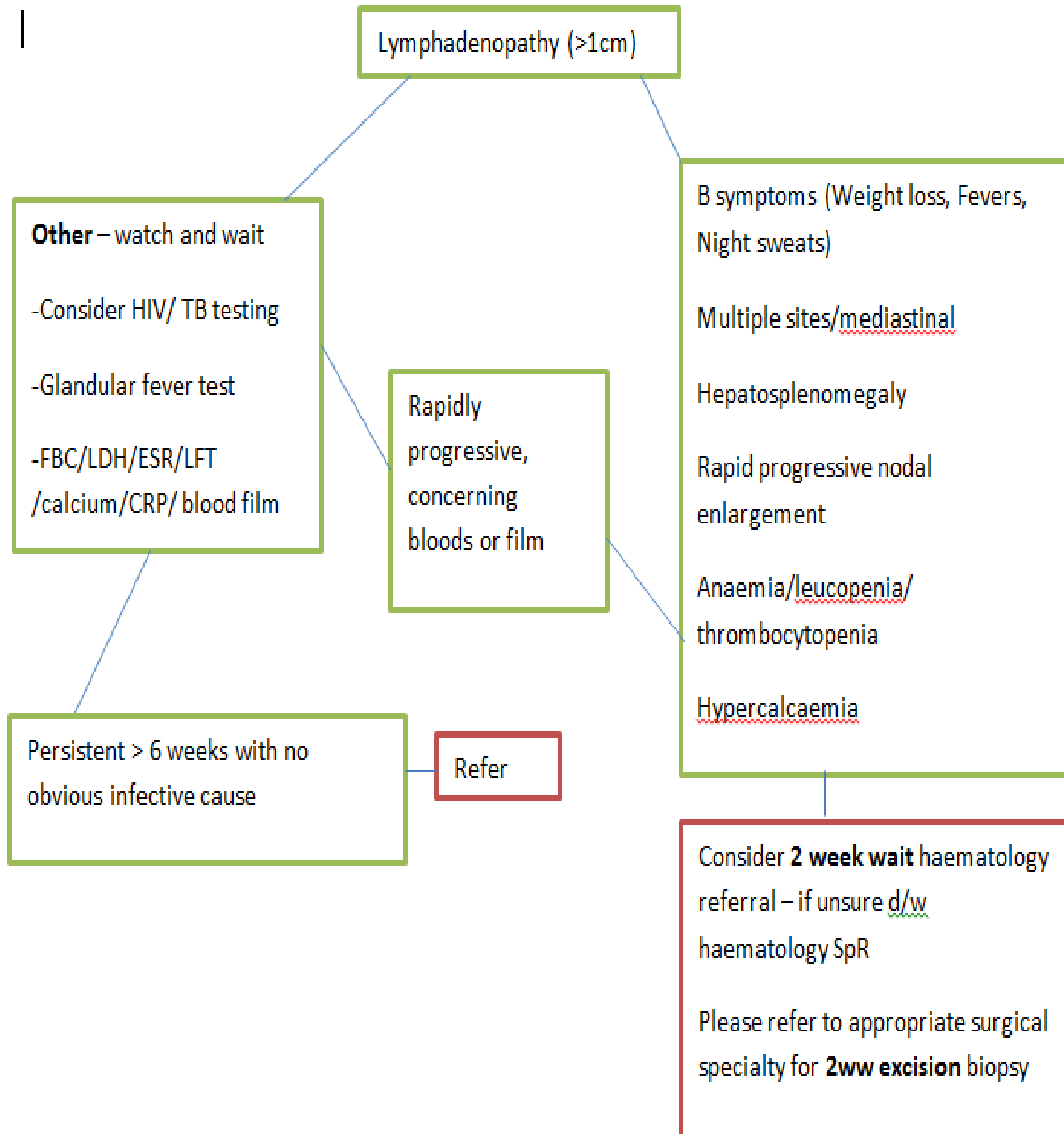

All Haem-Onc Referrals Hammersmith Hospital

Surgeons
Mr Tolley
Mr Ziprin

Paraprotein

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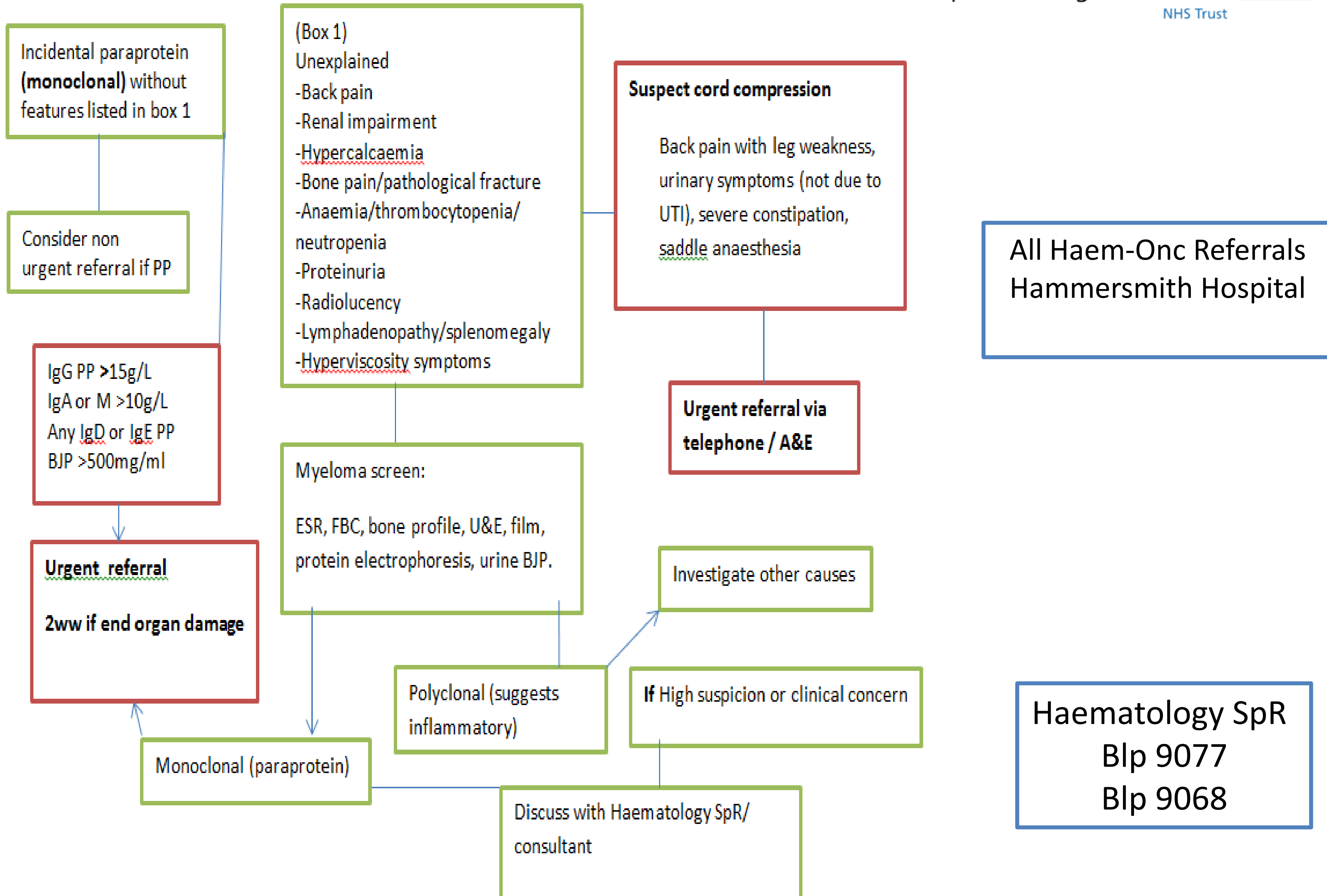

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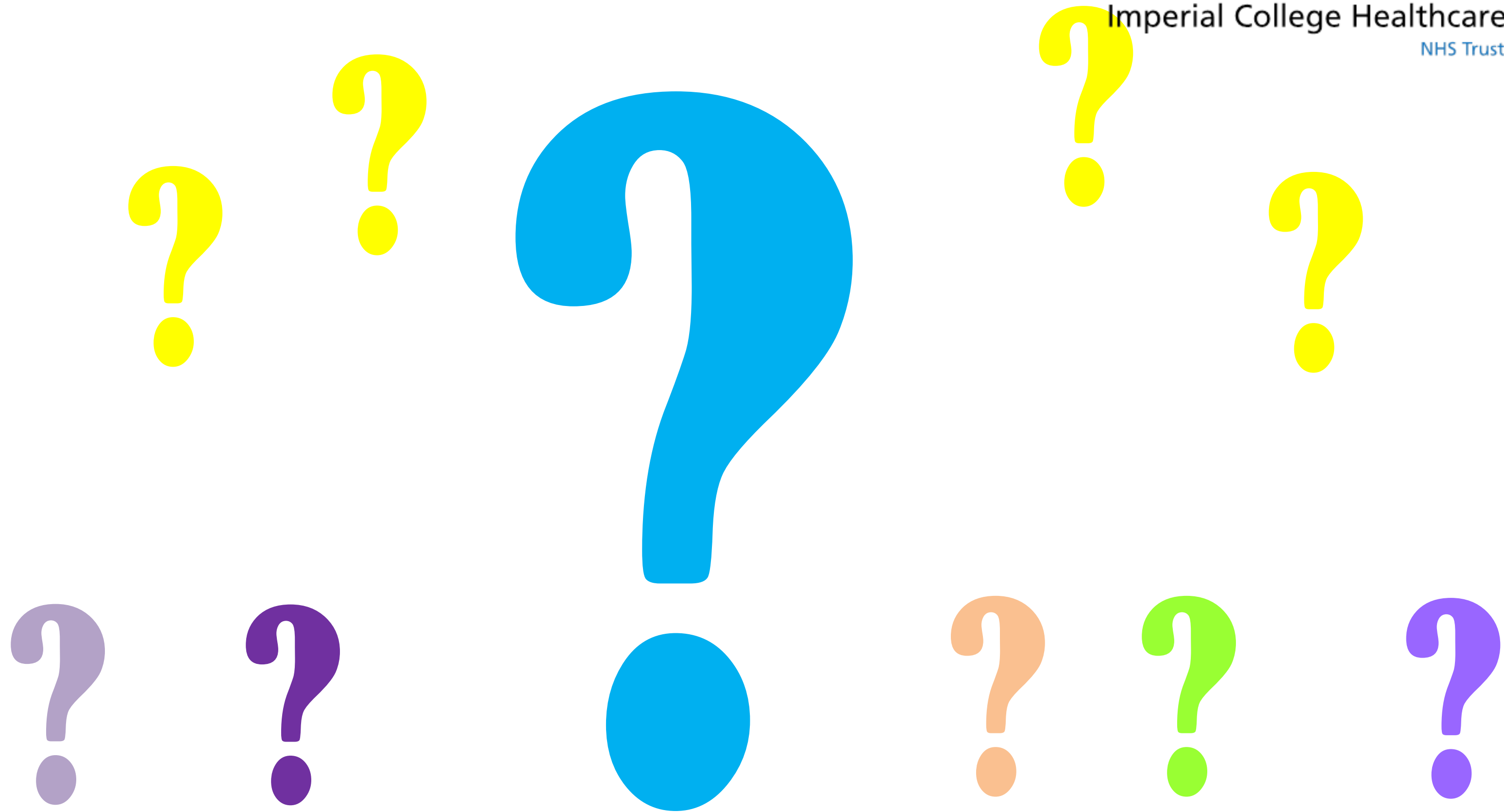

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