Lothian NHS Board

NHS Lothian Headquarters
Waverley Court
4 East Market Street
Edinburgh
EH8 8BG
www.nhslothian.scot

Date 24 July 2026
Your Ref
Our Ref 11635

Enquiries to Richard Mutch
Extension 35687
Direct Line 0131 465 5687
loth.freedomofinformation@nhs.scot
richard.mutch@nhs.scot

Dear

FREEDOM OF INFORMATION – ITP

I write in response to your request for information in relation to Immune thrombocytopenia (ITP).

Question:

- Does NHS Lothian have any local guidelines/protocols for the treatment of Immune thrombocytopenia (ITP)? If yes, please provide a copy.

Answer:

Yes.

I am advised that the East Region Formulary, which is the collaborative formulary for NHS Lothian, Fife and Borders; includes formulary approved medicines and treatment pathways for idiopathic thrombocytopenic purpura, which is considered a historic term as unknown cases are mostly attributed to immune-mediated processes that could cover immune thrombocytopenic purpura (ITP) reflecting the immune basis of the disease and the current term, immune thrombocytopenia (ITP).

The following information is available on the East Region Formulary for adults:
https://www.formulary.nhs.scot/east/nutrition-and-blood/blood/thrombocytopenic-purpura/?m=treatment-of-idiopathic-thrombocytopenic-purpura-itp

This information is exempt under Section 25 of the Freedom of Information (Scotland) Act 2002 - Information otherwise accessible

(1) Information which the applicant can reasonably obtain other than by requesting it under section 1(1) is exempt information.

I have also enclosed a PDF of the nutrition and blood chapter which contains the treatment pathway for idiopathic thrombocytopenia purpura. Also find enclosed the current ITP Clinical Management Guidelines.

I hope the information provided helps with your request.

If you are unhappy with our response to your request, \you do have the right to request us to review it. Your request should be made within 40 working days of receipt of this letter, and we will reply within 20 working days of receipt. If our decision is unchanged following a review and you remain dissatisfied with this, you then have the right to make a formal complaint to the Scottish Information Commissioner within 6 months of receipt of our review response. You can do this by using the Scottish Information Commissioner's Office online appeals service at www.itspublicknowledge.info/Appeal. If you remain dissatisfied with the Commissioner's response you then have the option to appeal to the Court of Session on a point of law.

If you require a review of our decision to be carried out, please write to the FOI Reviewer at the email address at the head of this letter. The review will be undertaken by a Reviewer who was not involved in the original decision-making process.

FOI responses (subject to redaction of personal information) may appear on NHS Lothian's Freedom of Information website at: https://org.nhslothian.scot/FOI/Pages/default.aspx

Yours sincerely

ALISON MACDONALD
Executive Director, Nursing
Cc: Chief Executive
Enc.

NHS Borders NHS Fife NHS Lothian

East Region Formulary

Nutrition and Blood (Adult)

23/06/2026

/1 /2 etc.	First line, second line, etc. choice(s) within the pathway
	Key information to note for these recommendations
	Specialist Initiation: may be continued in a primary care setting
	Specialist Use Only: must only be prescribed by a specialist
	Unlicensed Medicine: a medicine with no UK marketing authorisation
	Unlicensed Indication: licensed medicine being used outside the terms of its licence

Healthier Scotland
Scottish Government

Table of Contents

Group	Blood
Condition	Acquired haemophilia

Pathway 1	Treatment of acquired haemophilia

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Coagulation factors, steroids, oral cyclophosphamide are treatment options for acquired haemophilia.

/2

Rituximab SUO	Rituximab 100mg/10ml solution for infusion vials UI Rituximab 500mg/50ml solution for infusion vials UI	Dose as per specialist.

Prescribing notes	
	• Rituximab can be used first line in patients who are refractory or require rapid immunosuppression.

Group	Blood
Condition	Haemostasis

Pathway 1	Treatment of haemostasis

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Fibrinogen + Thrombin SUO	Fibrinogen 5.5mg/square cm / Thrombin 2units/square cm implant 2.5cm x 3cm Fibrinogen 5.5mg/square cm / Thrombin 2units/square cm implant 4.8cm x 4.8cm Fibrinogen 5.5mg/square cm / Thrombin 2units/square cm implant 4.8cm x 9.5cm	Dose as per specialist.

OR

For use in patients with acquired deficiency in prothrombin complex coagulation factors, such as deficiency caused by vitamin K antagonist treatment.

Prothrombin complex SUO	Beriplex P/N 250 powder and solvent for solution for injection vials UI Beriplex P/N 500 powder and solvent for solution for injection vials UI Beriplex P/N 1,000 powder and solvent for solution for injection vials UI	Dose as per specialist.

Group	Blood
Condition	Hypofibrinogenaemia

Pathway 1	Treatment of acquired hypofibrinogenaemia

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For use during major obstetric haemorrhage or during liver transplantation.

Fibrinogen SUO	Fibryga 1g powder and solvent for solution for infusion bottles	Dose as per specialist.

Prescribing notes	• Local protocols should be consulted for further information.

Group	Blood
Condition	Iron deficiency anaemia

Pathway 1	Oral treatment of iron deficiency anaemia

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	Ferrous fumarate	Ferrous fumarate 322mg tablets	322mg once daily.
OR	**Ferrous sulfate**	Ferrous sulfate 200mg tablets	200mg once daily.

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Liquid preparations should only be used when patients cannot tolerate or use solid formulations.

	Ferrous fumarate	Ferrous fumarate 140mg/5ml oral solution sugar free	10ml daily.
OR	**Sodium feredetate**	Sodium feredetate (iron 27.5mg/5ml) oral solution sugar free	10ml once daily.

Prescribing notes	• The haemoglobin should rise by approximately 1-2g/litre (100-200mg/100ml) per day or 20g/litre (2g/100ml) over 3-4 weeks. Once it has reached reference range, treatment should be continued for a further 3 months in order to replenish iron stores, and then stopped. • Gastro-intestinal side-effects are common. Therefore, although iron preparations are best absorbed on an empty stomach they may be taken after food to reduce these side-effects. • Modified-release preparations have no therapeutic advantage and should not be used. • Vitamin C in the form of orange juice aids absorption of iron and may also counteract constipation caused by iron preparations. • Due to reduced absorption patients should be advised to avoid taking tea, coffee, antacids and milk at the same time as iron. • Liquid formulations of iron should only be used for treatment of iron deficiency in children or in adults unable to swallow tablets or in those not able to tolerate tablet/capsule formulations.

Pathway 2 Parenteral treatment of iron deficiency anaemia

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Follow speciality guidelines or protocols for brand and preparation information.

Ferric carboxymaltose SUO	Ferinject 100mg/2ml solution for injection vials Ferinject 500mg/10ml solution for injection vials	By slow intravenous infusion, calculated according to body weight and iron deficit (consult product literature).

OR

See prescribing notes for more information on Ferric derisomaltose formulations.

Ferric derisomaltose SUO	Ferric derisomaltose 100mg/1ml solution for injection vials Ferric derisomaltose 500mg/5ml solution for injection vials Ferric derisomaltose 1g/10ml solution for injection vials	By intravenous injection or infusion, calculated according to body-weight and iron deficit (consult product literature).
	Diafer 100mg/2ml solution for injection ampoules	Dose as per specialist.

OR

Iron sucrose SUO	Iron sucrose 100mg/5ml solution for injection vials	Dose as per specialist.

Prescribing notes	• The only valid reason for administering iron parenterally is non-tolerance of oral therapy. If oral preparations are taken reliably and are absorbed, the haemoglobin response is not significantly faster with the parenteral route. • Intravenous administration of iron should only be undertaken in a secondary care setting. • Prescribing, dosing, administration and safety information varies for IV iron products therefore care should be taken to consult the relevant individual product literature and monograph before and during use. Facilities for cardiopulmonary resuscitation should be available.

	• **Ferric carboxymaltose** (Ferinject) is approved by SMC for the treatment of iron deficiency when oral iron preparations are ineffective or cannot be used and the diagnosis must be based on laboratory tests. This use is restricted to administration by intravenous infusion within the licensed indication but excluding use in patients receiving haemodialysis. • **Ferric derisomaltose** Pharmacosmos 100mg/ml (previously named Monofer) is only approved for administration by high dose infusion. Administration by intravenous injection or to haemodialysis patients is outwith the Scottish Medicines Consortium advice. • **Ferric derisomaltose** 100mg/2ml (**Diafer**) is approved for the treatment of iron deficiency in adults with chronic kidney disease (CKD) on dialysis, when oral iron preparations are ineffective or cannot be used. • **Ferric derisomaltose** was previously named iron (III) isomaltoside 1000. • **Ferric carboxymaltose** requires only a 15-minute administration time. A maximum dose of 1000mg of Ferinject can be administered per day. If the required dose is greater than 1000mg, a second dose at least one week later may be required. • For parenteral treatment of iron deficiency anaemia in CKD patients, refer to local board guidelines or Anaemia in CKD guidance in Edinburgh Renal Unit Handbook. • Ferric carboxymaltose has been associated with risk of symptomatic hypophosphataemia leading to osteomalacia and fractures. For further advice see MHRA Drug safety Update, November 2020. • Prescribers of parenteral iron preparations should be aware of advice issued by the MHRA, see MHRA Drug Safety Update, December 2014.

Pathway 3	Treatment of iron overload

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The management of established iron overload involves venesection.

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For prevention in patients receiving regular long-term blood transfusion. Hospital use only.

Desferrioxamine SUO	Desferrioxamine 500mg powder for solution for injection vials Desferrioxamine 2g powder for solution for injection vials	Consult product literature and local protocols.

OR

For specialist use in patients with rare acquired or inherited anaemias requiring recurrent blood transfusions. Hospital use only.

Deferasirox SUO	Deferasirox 90mg tablets Deferasirox 180mg tablets Deferasirox 360mg tablets	Oral use, dose adjusted according to serum-ferritin concentration and amount of transfused blood – consult product literature.

Prescribing notes	• Desferrioxamine may be used to manage transfusional iron overload.
	• Deferasirox is approved for restricted use by a hospital specialist for the following indications:
	  ○ Management of chronic iron overload in rare acquired or inherited anaemias (thalassaemias) requiring recurrent blood transfusions.
	  ○ Treatment of chronic iron overload due to blood transfusions when desferrioxamine therapy is contraindicated or inadequate, with rare acquired or inherited anaemias. To be used in patients with myelodysplastic syndrome with an International Prognostic Scoring System score of low or intermediate -1 risk.

Pathway 4	Anaemia in pregnancy

Prescribing notes	• A pathway containing general notes on prescribing in pregnancy is available on the Pregnancy condition page of the formulary. • Iron supplementation is currently under review, guidelines to follow.

Group	Blood
Condition	Kidney disease

Pathway 1	Treatment to slow progression of chronic kidney disease

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Standard treatments, such as renin-angiotensin-aldosterone system inhibitors, should be used as first line treatment please see local guidelines.

/2 **Dapagliflozin**	Dapagliflozin 10mg tablets	1 tablet daily.
/3 **Empagliflozin**	Empagliflozin 10mg tablets	1 tablet daily.

/4

Chronic kidney disease (stage 3 and 4 with albuminuria) associated with type 2 diabetes in adults

Finerenone SI	Finerenone 10mg tablets Finerenone 20mg tablets	Refer to local EdRen guidelines

Prescribing notes	• Local prescribing advice on how to start an SGLT-2 Inhibitor in diabetic and non-diabetic chronic kidney disease on EdRen. • Dapagliflozin is the preferred SGLT2 inhibitor for the majority of patients and is available at a lower cost. Empagliflozin is an alternative SGLT2 inhibitor, reserved for use when Dapagliflozin is unsuitable. • Refer to EdRen for local prescribing advice on finerenone in diabetic chronic kidney disease. • Sick day rules are applicable to SGLT-2 inhibitors and finerenone. • Included on the formulary with criteria added in addition to SMC advice. Refer to EdRen website for local criteria - upper eGFR limit removed as not reported by labs, PCR measurement used locally rather than ACR.

Pathway 2	Treatment to slow progression of autosomal dominant polycystic kidney disease

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Tolvaptan SUO	Tolvaptan 45mg tablets and Tolvaptan 15mg tablets Tolvaptan 60mg tablets and Tolvaptan 30mg tablets Tolvaptan 90mg tablets and Tolvaptan 30mg tablets Tolvaptan 15mg tablets Tolvaptan 30mg tablets Tolvaptan 45mg tablets	Dose as per specialist.

Prescribing notes	• Tolvaptan is a vasopressin V2 receptor antagonist that slows the loss of kidney function in patients with autosomal dominant polycystic kidney disease, partly by reducing the rate of kidney cyst growth. These benefits are greatest in those patients at high risk of kidney decline as identified by strict clinical and imaging criteria. Tolvaptan is prescribed in secondary care but requires regular monitoring of liver function tests. Sick day rules are applicable and there are important interactions with antimicrobials that should be checked prior to new prescriptions.

Pathway 3	Prevention of clotting in extracorporeal circuits

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The brand of choice is Inhixa.

Enoxaparin SUO	Enoxaparin sodium 20mg/0.2ml solution for injection pre-filled syringes Enoxaparin sodium 40mg/0.4ml solution for injection pre-filled syringes Enoxaparin sodium 60mg/0.6ml solution for injection pre-filled syringes	See product literature or refer to local guidelines.

Prescribing notes	• Refer to local hospital guidelines for prevention of clotting in extracorporeal circuits.

Group	**Blood**
Condition	**Megaloblastic anaemia**

Pathway 1	General prescribing notes for all adult megaloblastic anaemia pathways

Prescribing notes	• Megaloblastic anaemia is usually due to vitamin B_{12} or folate deficiency; the specific deficiency and underlying cause must be identified. Treatment is usually only begun once a firm diagnosis is made. In emergencies, where delayed treatment may be dangerous, both folate and vitamin B_{12} may be required initially, until assay results are known. Folate must not be used alone in undiagnosed megaloblastic anaemia due to the risk of B_{12} deficiency leading to peripheral neuropathy.

Pathway 2	Treatment of non-dietary vitamin B12 deficiency

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Hydroxocobalamin	Hydroxocobalamin 1mg/1ml solution for injection ampoules	By intramuscular injection. Anaemia without neurological involvement, 1mg 3 times a week for 2 weeks then 1mg every 3 months. Anaemia with neurological involvement, 1mg on alternate days until no further improvement then 1mg every 2 months. Prophylaxis, 1mg every 3 months. Tobacco amblyopia and Leber's optic atrophy, 1mg daily for 2 weeks then 1mg twice weekly until no further improvement, thereafter 1mg every 1-3 months.

Prescribing notes	• Apart from dietary deficiency all other causes of vitamin B_{12} deficiency are attributable to malabsorption. Vitamin B_{12} should be given prophylactically after total gastrectomy or total ileal resection. • There is little place for use of low dose vitamin B_{12} orally. However, cyanocobalamin tablets can be used in doses of 50-150micrograms daily for vegans or patients who have proven dietary deficiency. • Oral cyanocobalamin in larger daily doses of 1-2mg (unlicensed dose) may be effective in patients who experience hypersensitivity reactions to the injection or are unable to receive intramuscular injections. • There is no evidence that doses larger than those recommended provide any additional benefit in cases with neurological or ocular involvement. • For local clinical guidelines, including advice for when intra-muscular B_{12} is required and where dietary advice is appropriate, please see RefHelp (NHS Lothian) and the NHS Fife B12 Investigation and Management.

Pathway 3 Treatment of folate deficiency

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Liquid preparations should only be used when patients cannot tolerate or use solid formulations.

Folic acid	Folic acid 5mg tablets Folic acid 2.5mg/5ml oral solution sugar free	Folate deficient state (e.g. pregnancy, poor nutrition, concurrent antiepileptics), 5mg daily for 4 months (until term in pregnant women); doses up to 15mg daily may be required in malabsorption states.

Prescribing notes	• There is no need to routinely prescribe a combined iron/folic acid preparation in pregnancy. • Folic acid has few indications for long-term therapy since most causes of folate deficiency are self-limiting or will yield to a short course of therapy. • Where B_{12} and folate deficiency are identified, B_{12} replacement should be initiated first.

Pathway 4 Prophylaxis of folate deficiency in chronic haemolytic states and renal dialysis

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Liquid preparations should only be used when patients cannot tolerate or use solid formulations.

Folic acid	Folic acid 5mg tablets Folic acid 2.5mg/5ml oral solution sugar free	5mg every 1-7 days dependent on underlying disease.

Prescribing notes	• There is no need to routinely prescribe a combined iron/folic acid preparation in pregnancy. • Folic acid has few indications for long-term therapy since most causes of folate deficiency are self-limiting or will yield to a short course of therapy.

Pathway 5	Prevention of neural tube defects

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See prescribing notes.

Folic acid	Folic acid 400microgram tablets	400micrograms daily, to be taken before conception and until week 12 of pregnancy.
	Folic acid 5mg tablets	5mg daily, to be taken before conception and until week 12 of pregnancy.

Prescribing notes	• There is no need to routinely prescribe a combined iron/folic acid preparation in pregnancy. • Folic acid 400micrograms daily should be recommended for all women attempting to conceive and continued until the 12th week of pregnancy to reduce the risk of a neural tube defect. • Women at high risk (women with epilepsy, with diabetes, with coeliac disease, with a chronic haemolytic state or with a BMI >30 and those with a previous affected pregnancy) should take 5mg from pre-conception until 12 weeks.

Group	Blood
Condition	Neutropenia

Guidance links	Edinburgh Cancer Centre (intranet): G-CSF Guideline NHS Lothian (intranet): G-CSF Haematology Policy

Pathway 1	Treatment of neutropenia

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	Filgrastim SUO	Filgrastim 30million units/0.5ml solution for injection pre-filled syringes Filgrastim 48million units/0.5ml solution for injection pre-filled syringes	Dose as per specialist.
OR	**Lenograstim** SUO	Lenograstim 13.4million unit powder and solvent for solution for injection pre-filled syringes Lenograstim 33.6million unit powder and solvent for solution for injection pre-filled syringes	Dose as per specialist.

/2

Pegfilgrastim and lipegfilgrastim are long-acting g-CSF formulations.

	Pegfilgrastim SUO	Pegfilgrastim 6mg/0.6ml solution for injection pre-filled syringes Pegfilgrastim 6mg/0.6ml solution for injection pre-filled disposable devices	Dose as per specialist.
OR	**Lipegfilgrastim** SUO	Lipegfilgrastim 6mg/0.6ml solution for injection pre-filled syringes	Dose as per specialist.

Prescribing notes	• A long-acting g-CSF formulation (e.g pegfilgrastim or lipegfilgrastim) may be used only in patients who are physically unable to self-inject daily filgrastim, or do not have a carer who can do this for them, or have a clinical issue which precludes use of daily filgrastim. • For regimens where there is <12 days between SACT dose, use of long acting GCSF is contraindicated. • Due to potential risk of lung hyperinflammation in patients diagnosed with COVID-19, GCSF should be stopped if a patient on GCSF treatment is admitted with signs of sepsis, lung inflammation and potential COVID -19. GCSF treatment should be withheld until a negative swab is obtained or lungs are deemed unaffected.

Group	Blood
Condition	Renal anaemia

Pathway 1	Treatment of renal anaemia

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Products are listed alphabetically.

Darbepoetin alfa SI	Aranesp 10micrograms/0.4ml solution for injection pre-filled syringes Aranesp 20micrograms/0.5ml solution for injection pre-filled syringes Aranesp 30micrograms/0.3ml solution for injection pre-filled syringes Aranesp 40micrograms/0.4ml solution for injection pre-filled syringes Aranesp 50micrograms/0.5ml solution for injection pre-filled syringes Aranesp 60micrograms/0.3ml solution for injection pre-filled syringes Aranesp 80micrograms/0.4ml solution for injection pre-filled syringes Aranesp 100micrograms/0.5ml solution for injection pre-filled syringes Aranesp 130micrograms/0.65ml solution for injection pre-filled syringes Aranesp 150micrograms/0.3ml solution for injection pre-filled syringes Aranesp 300micrograms/0.6ml solution for injection pre-filled syringes Aranesp 500micrograms/1ml solution for injection pre-filled syringes	Dose as per specialist.

OR	**Epoetin beta** SI	NeoRecormon 500units/0.3ml solution for injection pre-filled syringes NeoRecormon 2,000units/0.3ml solution for injection pre-filled syringes NeoRecormon 3,000units/0.3ml solution for injection pre-filled syringes NeoRecormon 4,000units/0.3ml solution for injection pre-filled syringes NeoRecormon 5,000units/0.3ml solution for injection pre-filled syringes NeoRecormon 6,000units/0.3ml solution for injection pre-filled syringes NeoRecormon 10,000units/0.6ml solution for injection pre-filled syringes NeoRecormon 30,000units/0.6ml solution for injection pre-filled syringes	Dose as per specialist.
OR	**Methoxy polyethylene glycol-epoetin beta** SI	Mircera 30micrograms/0.3ml solution for injection pre-filled syringes Mircera 50micrograms/0.3ml solution for injection pre-filled syringes Mircera 75micrograms/0.3ml solution for injection pre-filled syringes Mircera 100micrograms/0.3ml solution for injection pre-filled syringes Mircera 120micrograms/0.3ml solution for injection pre-filled syringes Mircera 150micrograms/0.3ml solution for injection pre-filled syringes Mircera 200micrograms/0.3ml solution for injection pre-filled syringes Mircera 250micrograms/0.3ml solution for injection pre-filled syringes	Dose as per specialist.

	Mircera 360micrograms/0.6ml solution for injection pre-filled syringes	

Prescribing notes	• Epoetin may be used in patients with advanced chronic kidney disease (CKD) including those on haemodialysis, peritoneal dialysis or with a renal transplant. Darbepoetin alfa may be prescribed as an alternative to epoetin for those who would benefit from its once weekly administration instead of more frequent injections required with epoetin. Methoxy polyethylene glycol-epoetin beta may be prescribed in patients with pre-dialysis CKD would benefit from its fortnightly administration to reduce injection frequency. • These drugs are initiated by specialists in secondary care but are appropriate for a shared care arrangements to facilitate the seamless transfer of individual patient care from secondary to primary care. Please refer to local shared care protocols for prescribing and monitoring advice.

Group	Blood
Condition	Sickle cell anaemia

Pathway 1	Treatment of sickle cell anaemia

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Liquid preparations should only be used when patients cannot tolerate or use solid formulations.

Hydroxycarbamide SUO	Hydroxycarbamide 500mg capsules Hydroxycarbamide 500mg/5ml oral solution sugar free	Dose as per specialist.

Prescribing notes	• Local protocols should be consulted for further information.

Group	Blood
Condition	Thrombocytopenic purpura

Pathway 1	Treatment of acquired thrombotic thrombocytopenic purpura (TTP)

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	Caplacizumab SUO	Caplacizumab 10mg powder and solvent for solution for injection vials	Dose as per specialist.
AND	**Rituximab** SUO	Rituximab 100mg/10ml solution for infusion vials UI	Dose as per specialist.

Prescribing notes	• Caplacizumab is approved for the treatment of adults experiencing an episode of acquired thrombotic thrombocytopenic purpura (aTTP), in conjunction with plasma exchange and immunosuppression.

Pathway 2 — Treatment of idiopathic thrombocytopenic purpura (ITP)

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For initial management with corticosteroids and in some cases, immunoglobulins refer to local or national guidance.

/2

Eltrombopag SUO	Eltrombopag 25mg tablets Eltrombopag 50mg tablets	Dose as per specialist.

Prescribe biosimilars by brand

OR

Rituximab SUO	Rituximab 100mg/10ml solution for infusion vials	Dose as per specialist.

/3

Avatrombopag SUO	Doptelet 20mg tablets	Dose as per specialist.

/4

Romiplostim SUO	Romiplostim 125microgram powder for solution for injection vials Romiplostim 250microgram powder and solvent for solution for injection vials	Dose as per specialist.

Prescribing notes	• The order of second line choices in this pathway is not intended to guide on place in therapy. The place in therapy is directed by a specialist prescriber experienced in the management of the condition, use is in line with relevant local or national guidance.
	• For use of immunoglobulins in management of ITP refer to Scottish IVIG guidelines.
	• **Eltrombopag** is approved for restricted use by a hospital specialist for the following indications:
	  ○ In chronic immune (idiopathic) thrombocytopenic purpura (ITP) splenectomised patients who are refractory to other treatments (e.g. corticosteroids, immunoglobulins).
	  ○ As second-line treatment for adult non-splenectomised patients where surgery is contraindicated. Use is restricted to patients with severe symptomatic ITP or a high risk of bleeding.

	○ Treatment of thrombocytopenia in patients with chronic hepatitis C virus infection. Where the degree of thrombocytopenia is the main factor preventing the initiation or limiting the ability to maintain optimal interferon-based therapy. • **Avotrombopag** is approved for the treatment of primary chronic immune thrombocytopenia (ITP) in adult patients who are refractory to other treatments (e.g. corticosteroids, immunoglobulins). Restricted to use in patients with severe symptomatic ITP or a high risk of bleeding. • **Romiplostim** is approved for restricted use by a hospital specialist for the following indications: ○ Severe symptomatic ITP or patients with a high risk of bleeding for chronic immune (idiopathic) thrombocytopenic purpura (ITP) splenectomised patients who are refractory to other treatments (e.g. corticosteroids, immunoglobulins). ○ Second line treatment for non-splenectomised patients where surgery is contra-indicated. Restricted to use in patients with severe symptomatic ITP or at high risk of bleeding. • Other immunosuppressants may also be used for treatment for ITP as guided by the haematologists as per local and National guidance.

Group	Fluid and electrolyte imbalances
Condition	Hypercalcaemia

Opening text	Follow local hospital guidelines for the treatment of hypercalcaemia. See formulary recommendations for Bone issues associated with malignancy for links to information on the treatment of tumour induced hypercalcaemia.

Group	Fluid and electrolyte imbalances
Condition	Hyperkalaemia

Guidance Links	Borders Intranet - Electrolyte Deficiency	Lothian RefHelp	Society for Endocrinology Guidance

Pathway 1	Treatment of hyperkalaemia

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Sodium zirconium cyclosilicate (Lokelma) is **SUO** for acute hyperkalaemia and **SI** for chronic use in patients on ACE inhibitors or angiotensin receptor blockers.

Sodium zirconium cyclosilicate SI SUO	Lokelma 5g oral powder sachets Lokelma 10g oral powder sachets	10g three times a day for up to 72 hours.

/2

Avoid calcium polystyrene sulfonate in patients with hypercalcaemia.

Calcium polystyrene sulfonate SI	Calcium polystyrene sulfonate powder sugar free	Orally, 15g 3-4 times daily in water. Rectally, 30g retained for 9 hours followed by irrigation to remove resin from colon.

Prescribing notes	
	• Calcium polystyrene sulphonate may be used to remove excess potassium in mild hyperkalaemia or in moderate hyperkalaemia when there are not ECG changes. Intravenous therapy is required in emergencies; see BNF and local guidelines for advice. • To prevent constipation during treatment with calcium polystyrene sulfonate concurrent laxative therapy should be considered. • Refer to local secondary care acute hyperkalaemia guidelines for more information.

Pathway 2	Treatment of hyperkalaemia in patients on renin-angiotensin-aldosterone system inhibitors

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Sodium zirconium cyclosilicate SI	Sodium zirconium cyclosilicate 5g oral powder sachets Sodium zirconium cyclosilicate 10g oral powder sachets	As per specialist.

Prescribing notes	• Sodium zirconium cyclosilicate is approved by the Scottish Medicines Consortium for restricted use in patients with CKD stage 3b to 5 and/or heart failure who would otherwise need to lower or stop a renin angiotensin aldosterone system inhibitor, so that their blood potassium is kept at a normal level. Specific criteria apply and initiation is restricted to secondary care. Regular monitoring of serum potassium is required. Guidance available at EdRen.

Group	Fluid and electrolyte imbalances
Condition	Hyperphosphataemia

Pathway 1	Treatment of hyperphosphataemia in chronic renal impairment

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Calcium acetate SI	Renacet 475mg tablets Renacet 950mg tablets	Dose as per specialist.

OR

If calcium acetate is not tolerated.

Calcium carbonate SI	Adcal 1500mg chewable tablets	Dose as per specialist.

OR

Liquid preparations should only be used when patients cannot tolerate or use solid formulations.

Sevelamer SI	Sevelamer 800mg tablets Sevelamer 2.4g oral powder sachets sugar free	Dose as per specialist.

/2

Sucroferric oxyhydroxide SI	Sucroferric oxyhydroxide (iron 500mg) chewable tablets	Dose as per specialist.

/3

Liquid preparations should only be used when patients cannot tolerate or use solid formulations.

Lanthanum carbonate SI	Lanthanum carbonate 500mg chewable tablets	Dose as per specialist.

	Lanthanum carbonate 750mg chewable tablets Lanthanum carbonate 1g chewable tablets Lanthanum carbonate 750mg oral powder sachets Lanthanum carbonate 1g oral powder sachets	

Prescribing notes	• Sevelamer carbonate sachets can be used as an alternative to tablet formulations of sevelamer in patients unable to swallow tablets. • Sucroferric oxyhydroxide (Velphoro) is an option for patients who are not suitable for treatment with calcium phosphate binders, or have tried other phosphate binders with limited success.

Group	Fluid and electrolyte imbalances
Condition	Hypocalcaemia

Guidance Links	Borders Intranet - Electrolyte Deficiency	Lothian RefHelp	Society for Endocrinology Guidance

Pathway 1	Treatment of hypocalcaemia

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Calcium carbonate	Calcichew 500mg chewable tablets	For calcium deficiency, 8 tablets daily.

OR

Calvive effervescent tablets should only be used for patients who require a dispersible preparation due to cost difference between the two first line preparations.

Calcium lactate gluconate + Calcium carbonate	Calvive 1000 effervescent tablets	For calcium deficiency, 2 twice a day.

/2

Calcium gluconate SI	Calcium gluconate 10% solution for injection 10ml ampoules	As per specialist.

/3

Calcium chloride can be used in emergency situations and should be given via a central line.

Calcium chloride SI	Calcium chloride 14.7% solution for injection 10ml ampoules	As per specialist.

Prescribing notes	
	• Sandocal 1000 are now known as Calvive 1000 effervescent tablets. • Calcium supplements are usually only required if dietary calcium intake is deficient. • Further prescribing advice can be found in the Society for Endocrinology Guidance during the initial phase of assessment and management of acute hypocalcaemia in adult patients.

	• See recommendations for the treatment of Osteoporosis in the Endocrine chapter of the formulary and for calcium and vitamin D supplements in the Vitamin deficiency section. • Calcium is usually used in combination with vitamin D in prevention and treatment of osteoporosis. • The administration time for calcium therapy is important: if used as a phosphate binder it should be prescribed 5-10 minutes before meals, but if used as a calcium supplement it should be prescribed away from mealtimes, often at night. • Calcium gluconate is used in treatment of hypocalcaemic tetany or acute deficiency states in surgical patients. • Hypocalcaemia may be associated with vitamin D, parathyroid hormone deficiency or magnesium deficiency and these should be assessed and corrected.

Group	Fluid and electrolyte imbalances
Condition	Hypokalaemia

Guidance Links	Borders Intranet - Electrolyte Deficiency	Lothian RefHelp	Society for Endocrinology Guidance

Pathway 1	Treatment of hypokalaemia

/1

Potassium bicarbonate + Potassium chloride	Sando-K effervescent tablets	Two tablets three times daily, dispersed in water. Dose may be altered according to serum levels.

Prescribing notes	

- Potassium-sparing diuretics are recommended instead of potassium supplements for prevention of hypokalaemia due to diuretics such as furosemide or thiazides when these are given to eliminate oedema. Long term use of potassium supplements is not generally recommended but if clinically indicated then serum potassium levels should be checked regularly.
- Refer to local board hospital guidance and/or NPSA alert Discontinuation of Kay-Cee-L (potassium chloride 375mg/5ml) (potassium chloride 5mmol/5ml) syrup for further guidance on enteral product choices when Sando-K is not considered appropriate.
- Potassium chloride 600mg (potassium 8mmol) modified-release tablets are not preferred for potassium supplementation but may be considered in patients in whom effervescent tablets are considered inappropriate.
- Consider parenteral replacement in severe potassium deficiency or in patients with ECG changes.
- For information on potassium replacement in IV fluids refer to local secondary care IV fluid management guidelines.
- Only premixed potassium chloride IV infusion bags should be used as per local guidelines. Awareness of the National Patient Safety Alert is also helpful - see 'Potassium chloride concentrate solution - Patient Safety Alert'.

Group	Fluid and electrolyte imbalances
Condition	Hypomagnesaemia

Guidance Links	Borders Intranet - Electrolyte Deficiency	Lothian RefHelp	Society for Endocrinology Guidance

Pathway 1	Treatment of hypomagnesaemia

/1	**Magnesium aspartate**	Magnaspartate 243mg (magnesium 10mmol) oral powder sachets	One to two sachets (10 - 20 mmol Mg^{2}+) daily dissolved in water.
/2	**Magnesium glycerophosphate**	Neomag (magnesium 97mg (4mmol)) chewable tablets	Starting dose 1-2 tablets 3 times daily, adjusted according to the serum total magnesium level.
OR	**Magnesium sulfate** SI	Magnesium sulfate 20% (magnesium 0.8mmol/ml) solution for injection 20ml vials Magnesium sulfate 50% (magnesium 2mmol/ml) solution for injection 2ml ampoules Magnesium sulfate 50% (magnesium 2mmol/ml) solution for injection 5ml ampoules Magnesium sulfate 50% (magnesium 2mmol/ml) solution for injection 10ml ampoules Magnesium sulfate 50% (magnesium 2mmol/ml) solution for injection 20ml vials	Dose according to prescribing guidelines.

Prescribing notes	• Diarrhoea is a common side-effect of magnesium supplements and is usually dose dependent.

	• Magnesium is not well absorbed from the gastro-intestinal tract. Magnesium aspartate sachets may be used by specialists for the treatment of chronic hypomagnesaemia in doses adjusted according to individual requirements. • Magnaspartate powder for oral solution is the preferred oral formulation of magnesium. Other licensed magnesium glycerophosphate products may be used if Magnaspartate is not tolerated. • Unless there are valid clinical grounds patients currently prescribed unlicensed formulations of magnesium should be switched to Magnaspartate. The dose should be titrated to the maximum tolerated dose with monitoring of magnesium serum levels. • Further prescribing advice can be found from the Society for Endocrinology.

Group	Fluid and electrolyte imbalances
Condition	Hyponatraemia

Guidance Links	Borders Intranet - Electrolyte Deficiency	Lothian RefHelp	Society for Endocrinology Guidance

Pathway 1	Treatment of hyponatraemia

/1

Sodium depletion (e.g. salt-losing bowel, renal disease).

	Sodium chloride	Sodium chloride 600mg modified-release tablets	Prophylaxis of sodium chloride deficiency 4-8 tablets daily with water (max 20 tablets daily in severe depletion). Chronic renal salt wasting, up to 20 tablets daily with appropriate fluid intake. **Note**: each tablet contains Na+ 10mmol.
OR	**Oral rehydration therapy**	Dioralyte oral powder sachets blackcurrant Dioralyte oral powder sachets citrus Dioralyte oral powder sachets plain	Reconstitute one sachet with 200ml of water (freshly boiled and cooled for infants). **Note**: five sachets when reconstituted with 1 litre of water provide Na+ 60mmol, K+ 20mmol, Cl- 60mmol, citrate 10mmol, and glucose 90mmol.

Prescribing notes	
	• Treatment should be guided by cause of hyponatraemia and local guidelines should be consulted prior to prescribing. • Any unused reconstituted solution of Dioralyte should be discarded after 1 hour unless stored in a fridge when it may be kept for up to 24 hours. • Oral supplementation may be indicated in chronic conditions such as salt-losing bowel. • Oral rehydration salts are first line treatment for acute mild - moderate diarrhoea. • Hyponatraemia is common in hospital patients: in the absence of large GI losses the causes are almost always too much fluid. Also consider Syndrome of inappropriate antidiuretic hormone secretion (SIADH), or chronic diuretic use. Measure urine and serum osmolality and urine sodium before commencing treatment. Refer to local in-patient hyponatraemia guidelines for more information. • See Syndrome of inappropriate antidiuretic hormone secretion (SIADH) recommendations in the Endocrine formulary chapter.

Group	Fluid and electrolyte imbalances
Condition	Uraemic acidosis

Pathway 1	Treatment of acidosis associated with kidney disease

/1

Chronic acidosis due to renal impairment.

Sodium bicarbonate SI	Sodium bicarbonate 500mg capsules	Dose as per specialist.

OR

Renal tubular acidosis.

Potassium acid tartrate + Potassium bicarbonate SI	Potassium (potassium 6.5mmol) effervescent tablets BPC 1968	Dose as per specialist.

Prescribing notes	• Sodium bicarbonate is used for chronic acidotic states such as uraemic acidosis or renal tubular acidosis. It should be avoided in respiratory acidosis. The response is unpredictable and must be assessed. • Potassium bicarbonate is used for hyperchloraemic acidosis associated with K^+ deficiency e.g. renal tubular and gastro-intestinal disorders.

Group	Metabolic disorders
Condition	Metabolic disorders

Opening text	TOXBASE can be accessed for the RUMM list or information on the emergency treatment of poisoning. TOXBASE also have a 24-hour poisons enquiry line: 0344 892 0111 and is available as an app for smartphones.
Guidance links	British Inherited Metabolic Disease Group TOXBASE website

Pathway 1	Treatment of hyperammonaemia due to N-acetylglutamate synthase deficiency

/1	**Carglumic acid** SI	Carbaglu 200mg dispersible tablets	2-3 capsules daily.

Pathway 2	Adjunct treatment in the chronic management of urea cycle disorders

/1	**Sodium phenylbutyrate** SI	Pheburane 483mg/g granules	As per specialist.
OR	**Arginine** SI	Arginine 500mg/5ml oral solution UM Arginine 50% solution for infusion 10ml ampoules UM Arginine 1g tablets UM	See product literature.

Pathway 3	Adjunct treatment of homocystinuria

/1	**Betaine** SI	Betaine oral powder	As per specialist.

Pathway 4	Treatment of moderate type 1 Gaucher disease

/1	**Miglustat** SUO	Miglustat 100mg capsules	As per specialist.

Group	Nutrition
Condition	Coeliac disease

Guidance links	NHS Inform: Gluten Free Food Service Coeliac UK website

Pathway 1	General prescribing information for Gluten Free Food products

Prescribing notes

- Gluten-free foods should only be prescribed on NHS prescriptions for patients with established gluten-sensitive enteropathies, coeliac disease and dermatitis herpetiformis.
- In adults diagnosis must be made by positive antibody blood test and/or gut biopsy. Initial diagnosis and management should involve a gastroenterologist and a dietitian.
- In paediatrics (young people under 16 years old), diagnosis and management must be made by a specialist paediatric dietitian and/or consultant paediatric gastroenterologist. Guidance on the current and new ESPGHAN diagnosis and management of coeliac disease can be found on the paediatric gastroenterology pages on RefHelp. If there are any questions, please contact the respective coeliac services in NHS Borders, NHS Fife or NHS Lothian.
- Prescriptions for gluten-free foods should not be issued until diagnosis has been confirmed (even a short period of gluten avoidance will mask the diagnosis).
- Only those foods listed by the Advisory Committee on Borderline Substances (ACBS) should be prescribed.
- The Scottish Government Gluten-Free Food (GFF) Pharmaceutical Service allows patients to self-manage their gluten free prescriptions with the assistance of community pharmacy. Further information on the Gluten-Free Food (GFF) Service can be found on NHS Inform.

Quantities to Prescribe

- The quantity of gluten-free foods a patient requires is based on recommended nutritional intake for a healthy balanced diet, following these key principles:
  - total carbohydrate intake should provide 50% of a patient's total energy requirement. This should come from potatoes and rice, as well as gluten-free products;
  - gluten-free foods should provide 15% of a patient's total energy requirements.
- Coeliac UK provide guidance on the number of units that may be required by a patient. This may need to be increased for adults with particularly active lifestyles or occupations; or for children and young people with particularly active lifestyles or those who require additional nutrition for growth. Exceptions to these amounts should be on advice of a dietitian.

- Gluten-free foods that are not normally required are biscuits, cakes and cake mixes. However, exemptions may be made for those children and young people with growth concerns - if so, this will be advised in writing by specific recommendation of a paediatric dietitian.

Age	**Number of Units**
Child 1-3 years	10
Child 4-6 years	11
Child 7-10 years	13
Child 11-14 years	15
Child 15-18 years	18
Male 19-59 years	18
Male 60-74 years	16
Male ≥75 years	14
Female 19-74 years	14
Female ≥75 years	12
Female breastfeeding	add 4
Female in 3rd trimester of pregnancy	add 1

- Gluten-free foods promote compliance to a gluten-free diet. They provide nutrients that may not be readily available from other sources e.g. calcium and also support self-management.
- Some individuals with coeliac disease may require to avoid additional foods as well as gluten. It is important to check for additional allergies or intolerances (i.e. secondary lactose intolerance) or an unrelated allergy.
- Dietitians may recommend other products on the ACBS list on the basis of nutritional need or where growth problems are identified, the reasons for this should be documented.
- Some companies charge pharmacies for delivery of these products. This has been taken into account in the development of the formulary. Prescribers should be aware that any non-formulary prescribing may incur delivery costs (i.e. prescribing costs) in excess of the individual cost of the product.
- Barkat xanthan gum can be prescribed for patients that do home baking. *Delivery costs are incurred with this product*.

Pathway 2 Gluten free bread

/1

Select ‘dose’ section for details of PIP code and units for each product.

Gluten free fresh bread	Glutafin gluten free Select fresh seeded loaf sliced	PIP Code: 402 3685. Number of Units: 8
	Genius gluten free seeded brown farmhouse loaf sliced	PIP Code: 403 8345. Number of Units: 6
	Warburtons gluten free brown bread sliced	PIP Code: 368 5278. Number of Units: 4
	Glutafin gluten free Select fresh brown loaf sliced	PIP Code: 330 6800. Number of Units: 8
	Genius gluten free brown sandwich bread sliced	PIP Code: 379 8550. Number of Units: 6
	Warburtons gluten free white bread sliced	PIP Code: 368 5260. Number of Units: 4
	Genius gluten free white sandwich bread sliced	PIP Code: 379 8568. Number of Units: 6
	Juvela gluten free fresh white loaf sliced	PIP Code: 322 0217. Number of Units: 8

OR

Gluten free long-life bread	Glutafin gluten free white loaf sliced	PIP Code: 090 4268. Number of Units: ½
	Glutafin gluten free fibre loaf sliced	PIP Code: 237 7356. Number of Units: ½
	Juvela gluten free loaf sliced	PIP Code: 074 8590. Number of Units: 1
	Juvela gluten free fibre loaf sliced	PIP Code: 074 8632. Number of Units: 1
	Glutafin gluten free Select seeded loaf sliced	PIP Code: 308 9364. Number of Units: 1

Pathway 3	Gluten free rolls

/1

Select ‘dose’ section for details of pack sizes, PIP code and units for each product.

Gluten free fresh rolls	Warburtons gluten free brown rolls	PIP Code: 368 5294. Number of Units: 2 (4 rolls per pack) x 4
	Warburtons gluten free white rolls	PIP Code: 368 5286. Number of Units: 2 (4 rolls per pack) x 4
	Juvela gluten free fresh fibre rolls	PIP Code: 355 6800. Number of Units: 8 (5 x 85g pack) x 8
	Juvela gluten free fresh white rolls	PIP Code: 355 8871. Number of Units: 8 (5 x 85g per pack) x 8

OR

Gluten free part-baked rolls	Glutafin gluten free part baked 4 fibre rolls	PIP Code: 344 3652. Number of Units: ½ 4 rolls per pack
	Glutafin gluten free part baked 4 white rolls	PIP Code: 344 2753. Number of Units: ½ 4 rolls per pack

OR

Gluten free long-life rolls	Glutafin gluten free 4 white rolls	PIP Code: 344 3645. Number of Units: ½ 4 rolls per pack

Pathway 4 Gluten free flour and bread mix

/1

Select ‘dose’ section for details of pack sizes, PIP code and units for each product.

Gluten free bread mix	Glutafin gluten free Select bread mix	PIP Code: 274 4951. Number of Units: 2 1 x 500g
	Glutafin gluten free Select fibre bread mix	PIP Code: 297 9912. Number of Units: 2 1 x 500g

OR

Gluten free flour mix	Glutafin gluten free wheat free fibre mix	PIP Code: 231 2973. Number of Units: 2
	Glutafin gluten free multipurpose white mix	PIP Code: 231 2981. Number of Units: 2
	Juvela gluten free fibre mix	PIP Code: 023 6042. Number of Units: 2
	Juvela gluten free mix	PIP Code: 035 2161. Number of Units: 2
	Juvela gluten free harvest mix	PIP Code: 247 7875. Number of Units: 2

Pathway 5 Gluten free pasta

/1

Select ‘dose’ section for details of pack sizes, PIP code and units for each product.

Gluten free pasta	Glutafin gluten free pasta macaroni penne	PIP Code: 211 5152. Number of Units: 2 500g
	Glutafin gluten free pasta spirals	PIP Code: 211 5178. Number of Units: 2 500g
	Juvela gluten free pasta spaghetti	PIP Code: 280 7998. Number of Units: 2 500g
	Juvela gluten free pasta lasagne	PIP Code: 280 7972. Number of Units: 1 250g
	Juvela gluten free fibre penne	PIP Code: 332 8010. Number of Units: 2 500g

Pathway 6 Gluten free pizza bases

/1

Select ‘dose’ section for details of pack sizes, PIP code and units for each product.

Gluten free pizza bases	Glutafin gluten free pizza base	PIP Code: 334 1112. Number of Units: 1 2 x 150g
	Juvela gluten free pizza base	PIP Code: 265 4390. Number of Units: 1 2 x 150g

Pathway 7 Gluten free crispbread and crackers

/1

Select ‘dose’ section for details of pack sizes, PIP code and units for each product.

Gluten free crispbread	Glutafin gluten free crispbread	PIP Code: 338 4443. Number of Units: ½ 150g

OR

Gluten free crackers	Glutafin gluten free mini crackers	PIP Code: 353 5515. Number of Units: ½ 175g
	Glutafin gluten free crackers	PIP Code: 009 3302. Number of Units: 1 200g

Pathway 8 Gluten free breakfast cereal

/1

Select ‘dose’ section for details of pack sizes, PIP code and units for each product.

Gluten free breakfast cereal	Juvela gluten free pure oats	PIP Code: 371 1678. Number of Units: 1½ 500g
	Juvela gluten free fibre flakes	PIP Code: 371 1660. Number of Units: 1½ 300g
	Juvela gluten free flakes	PIP Code: 371 1652. Number of Units: 1½ 300g
	Juvela gluten free crispy rice cereal	PIP Code: 388 2982. Number of Units: 1½ 375g
	Juvela gluten free cornflakes	PIP Code: 388 2990. Number of Units: 1½ 375g

Group	**Nutrition**
Condition	**Malnourishment**

Pathway 1	**General prescribing notes for all adult pathways**

Prescribing notes	Oral nutritional supplements (ONS) should not be regarded as a first line treatment of under nutrition and should always follow dietary intervention using principles of Food First to maximise nutritional intake through normal food and fluids, see: Nourishing Ideas leaflet (NHS Lothian intranet); Nourishing Drinks leaflet (NHS Lothian intranet). • Use of Oral Nutritional Supplements (ONS) must comply with Scottish ONS Short Life Working Group Guidelines for Appropriate Prescribing of ONS in Adults (2018). • ONS should only be prescribed under the guidance of a dietitian (see the NHS Lothian RefHelp website for details). • Some ONS may not be appropriate in the presence of certain medical, for example chronic kidney disease, diabetes and pregnancy. • The Advisory Committee on Borderline Substances (ACBS) recommends products on the basis that they may be regarded as drugs for the management of specified conditions. It is essential that patients prescribed ONS meet the specific indications defined by ACBS. • Patient centred treatment aims should be agreed and documented when ONS are commenced. Patients should be reviewed regularly to monitor progress against aims and ongoing need for ONS. If aims are not met within 6 months consideration should be given to discontinuing ONS. • Products should be for that named individual, patients may not receive ONS prescribed for other patients. Dietitians may request other products based on the clinical need of the patient. Reasons for any such request will be given by the requesting dietitian.

Pathway 2	Treatment with oral nutritional supplements

Prescribing notes	Refer to the following local links for information on Oral Nutritional Supplements in each Board: • NHS Borders – Oral Nutritional Supplements • NHS Fife – Oral Nutritional Supplements • NHS Lothian – Oral Nutrional Supplements [link to media file Jan 25] • NHS Lothian RefHelp – Dietetics See also national guidance on the Scottish Government Effective Prescribing and Therapeutics Branch website.

Pathway 3	Treatment with enteral nutrition

Prescribing notes	Refer to local guidelines on enteral tube feeding in each Board. • NHS Lothian Enteral Tube Feed Products [link to media file Jan 25] • NHS Lothian intranet – Enteral Tube Feeding • NHS Fife - Enteral Nutritional Products

Group	Nutrition
Condition	Vitamin deficiency

Opening text	• The use of vitamins as general “pick-me-ups” is of unproven value and, in the case of preparations containing vitamin A or D, may be harmful if the prescribed dose is exceeded. • Mega-vitamin therapy with water-soluble vitamins, such as ascorbic acid and pyridoxine, is unscientific and can be harmful. • Recommendations for Vitamin B supplementation for alcohol dependence are available within the Alcohol dependence section of the formulary.

Pathway 1	Vitamin supplementation in cystic fibrosis

/1

Fat soluble vitamins in cystic fibrosis.

	Retinol + Vitamin D SI	Vitamins A and D capsules BPC 1973	Dose as per specialist advice.
AND	**Alpha tocopherol** SI	Vita-E 75unit capsules	Dose as per specialist advice.

/2

Fat soluble vitamins in cystic fibrosis.

	Paravit-CF SI	Paravit-cf capsules	Dose as per specialist advice.
OR	**DEKAs Plus**	DEKAs Plus softgels capsules DEKAs Plus chewable tablets	Dose as per specialist advice.

Prescribing notes	• If vitamin K is required, Paravit-CF reduces the pill burden and may be more cost-effective than separate combinations. • Vitamin A and D can be toxic in overdose. Levels are monitored once per year, compliance checked and dose adjusted at the cystic fibrosis clinic. • The usual maximum recommended dose of vitamin A is 10,000 units daily. This dose should not be exceeded in pregnancy. • The Vita-E 200iu capsules are blacklisted so funding will not be reimbursed where this is prescribed or supplied. The maximum recommended dose of 400 units daily should not be exceeded. • Vitamin E levels are monitored once per year, compliance checked and dose adjusted at the cystic fibrosis clinic.

	• DEKAs Plus will be used where patient has high pill burden but high dose vitamin K is not required e.g. if they do not have CF liver disease. The usual dose is 1 or 2 capsules or tablets per day.

Pathway 2 Vitamin B deficiency during isoniazid treatment

/1

Pyridoxine SI	Pyridoxine 10mg tablets Pyridoxine 20mg tablets Pyridoxine 50mg tablets Pyridoxine 100mg tablets	Dose as per specialist advice.

Prescribing notes	• Recommendations for Vitamin B supplementation for alcohol dependence are available within the Alcohol dependence section of the formulary. • Pyridoxine (vitamin B_6) deficiency may occur during isoniazid treatment or penicillamine treatment in Wilson's disease and is characterised by peripheral neuritis. • Vitamin B complex preparations are not recommended for prescribing. • The safety of long-term use of pyridoxine in doses above 10mg daily has not been established. Long-term use of doses above 200mg has been associated with neuropathy.

Pathway 3 Re-feeding Syndrome

Prescribing notes	Refer to local guidelines on re-feeding syndrome in each Board. • NHS Lothian intranet – Prevention of re-feeding syndrome guidelines

Pathway 4	Treatment of scurvy

/1

Ascorbic acid	Ascorbic acid 50mg tablets Ascorbic acid 100mg tablets Ascorbic acid 200mg tablets Ascorbic acid 500mg tablets	Prevention of scurvy, 25-75mg daily; treatment of scurvy, not less than 250mg daily in divided doses.

Prescribing notes	• Divided doses are necessary due to the low renal threshold of ascorbic acid. • Vitamin C (ascorbic acid) is indicated in the treatment of scurvy. Scurvy is rare but less severe deficiency may be seen, especially in the elderly. Dietary advice is usually sufficient for prevention of scurvy.

Pathway 5	Vitamin D deficiency

/1

Colecalciferol	Colecalciferol 800unit tablets Colecalciferol 1,000unit tablets Colecalciferol 4,000unit tablets Colecalciferol 25,000unit tablets Colecalciferol 800unit capsules Colecalciferol 3,200unit capsules Colecalciferol 20,000unit capsules Colecalciferol 25,000units/1ml oral solution unit dose ampoules sugar free	See guideline for dosing: see BNF for different brands available and for the maximum daily dosing (as this differs between brands).

Prescribing notes	• Treatment of vitamin D deficiency should follow local guidelines. In NHS Lothian Adult Vitamin D guideline via the Edinburgh Centre for Endocrinology Handbook recommends treatment in a three level step-wise approach. In NHS Borders refer to Vitamin D deficiency guidance (Right Decision Service) and in NHS Fife Vitamin D guidance. • Colecalciferol is indicated in adults and elderly for prevention and treatment of vitamin D deficiency who require level 2 treatment. This means there is a biochemical insufficiency but the benefit of treatment is unclear. • Patients requiring level 3 treatment should receive colecalciferol oral solution (InVitaD3). Level 3 treatment is where there is osteomalacia, there are clear treatment benefits. • InVitaD3 is presented as single dose oral ampoules, the contents of the ampoule should be emptied directly into the mouth and swallowed, or emptied on to a spoon and taken orally. • Some colecalciferol tablets are dispersible which may aid administration and avoid need for liquid formulations. • For prevention of vitamin d deficiency in the general population refer to Scottish Government vitamin D advice for all age groups. • Do not routinely screen or test for vitamin D deficiency. Limit testing to patients showing clinical signs of vitamin D deficiency such as bone pain with muscle weakness or generalised muscular pain. Also consider testing those with bone diseases that may be improved with vitamin D treatment or to correct vitamin D prior to treatment with potent therapies for osteoporosis. For further information refer to the Royal Osteoporosis Society. • Vitamin D supplements should only be prescribed for clinical need e.g. osteomalacia. For all other situations, patients should purchase an over-the-counter preparation.

Pathway 6	Vitamin D deficiency with severe renal impairment

/1

Patients with severe renal impairment.

Alfacalcidol SI	Alfacalcidol 250nanogram capsules Alfacalcidol 500nanogram capsules Alfacalcidol 1microgram capsules Alfacalcidol 2micrograms/ml oral drops sugar free Alfacalcidol 2micrograms/1ml solution for injection ampoules	By mouth or intravenous injection, initially 1microgram daily (elderly, 500nanograms), adjusted to avoid hypercalcaemia; maintenance, usually 0.25-1microgram daily.

Prescribing notes	• Treatment of vitamin D deficiency should follow local guidelines. In NHS Lothian Adult Vitamin D guideline via the Edinburgh Centre for Endocrinology Handbook recommends treatment in a three level step-wise approach. In NHS Borders refer to Vitamin D deficiency guidance (Right Decision Service) and in NHS Fife Vitamin D guidance. • Patients with severe renal impairment requiring vitamin D therapy should be prescribed alfacalcidol. Note One-Alpha capsules contain sesame oil. Check summary of product characteristics for excipients of generic products. • For prevention of vitamin D deficiency in the general population refer to Scottish Government vitamin D advice for all age groups. • Do not routinely screen or test for vitamin D deficiency. Limit testing to patients showing clinical signs of vitamin D deficiency such as bone pain with muscle weakness or generalised muscular pain. Also consider testing those with bone diseases that may be improved with vitamin D treatment or to correct vitamin D prior to treatment with potent therapies for osteoporosis. For further information refer to the Royal Osteoporosis Society.

Pathway 7 Calcium and vitamin D deficiency

/1

Accrete D3 One a Day chewable tablets, TheiCal-D3 chewable tablets, or Adcal-D3 caplets.

Colecalciferol + Calcium carbonate	Accrete D3 One a Day 1000mg/880unit chewable tablets	Containing 1000mg calcium and 880 units colecalciferol. 1 tablet once daily.
	TheiCal-D3 1000mg/880unit chewable tablets	Containing 1000mg calcium and 880 units colecalciferol. 1 tablet once daily.
	Adcal-D3 750mg/200unit caplets	Two caplets twice daily.

/2

Adcal-D3 Dissolve effervescent tablets for patients who require a dispersible formulation.

Colecalciferol + Calcium carbonate	Adcal-D3 Dissolve 1500mg/400unit effervescent tablets	Take 2 effervescent tablets daily, preferably one tablet each morning and evening. The effervescent tablets should be dissolved in a glass of water (approx. 200ml) and drunk immediately.

Prescribing notes	• Accrete D3 One a day tablets may be prescribed for osteoporosis. See recommendations for the treatment of osteoporosis. • Combination calcium and vitamin D products may be ineffective in moderate-severe renal disease; alfacalcidol may be a suitable alternative; see Vitamin D pathway above. • Compliance with calcium and vitamin D preparations is often poor due to the unpleasant taste. This should be monitored and, if patients cannot tolerate the first choice LJF preparation, other products with the same calcium and vitamin D dose may be tried. • Adcal D3 is available is several formulations e.g. caplets, chewable tablets, effervescent tablets. Caplets can be swallowed whole and are preferred but the formulation prescribed should be done in agreement with the patient to aid compliance.

Pathway 8	Vitamin E deficiency

/1

	Alpha tocopherol SI	Vitamin E 400unit capsules	800units once daily.

Prescribing notes	• Used in non-alcoholic fatty liver disease in non-diabetetic and pre-cirrhotic patients.

Pathway 9 Vitamin K deficiency

/1

Water soluble formula (for malabsorption syndromes).

Menadiol	Menadiol 10mg tablets	10mg to 40mg daily, dose to be adjusted as necessary.

OR

Fat soluble formula (not for malabsorption).

Phytomenadione	Phytomenadione 10mg/1ml solution for injection ampoules Phytomenadione 2mg/0.2ml solution for injection ampoules	See product literature.

Prescribing notes	• Menadiol sodium phosphate should be avoided in late pregnancy and labour unless benefit outweighs the risk of neonatal haemolytic anaemia, hyperbilirubinaemia and kerniticterus in neonate. • See Anticoagulation for Atrial Fibrillation pathway in the Cardiovascular system chapter of the formulary for use of phytomenadione to reverse the effects of warfarin. • Menadiol sodium phosphate is water-soluble and should be used to prevent vitamin K deficiency in malabsorption syndromes. • Phytomenadione is a fat-soluble formulation used to prevent vitamin K deficiency bleeding in newborn babies, to reverse the anticoagulant effects of warfarin, in coagulopathy associated with liver disease and also to treat cystic fibrosis related liver disease.

Pathway 10 Zinc deficiency

/1

Zinc sulfate SI	Zinc sulfate monohydrate 125mg effervescent tablets sugar free	45mg 1-3 times a day, dose to be adjusted as necessary, to be dissolved in water and taken after food, dose expressed as elemental zinc.

Prescribing notes	• Zinc supplements should only be given in proven zinc deficiency and zinc-losing conditions such as burns.

Pathway 11 Vitamin and trace element supplementation

/1

Forceval SI	Forceval capsules Forceval Soluble tablets	1 capsule daily, one hour after meal.

Prescribing notes	• Forceval should be used as vitamin and mineral supplementation in complex patients with conditions causing malabsorption on the advice of dieticians. This shouldn't be used where a general multi vitamin is required – if a general multi vitamin is required, they should be purchased over the counter. • Specialist initiation for maldigestion following oesophagogastric surgery and micronutrient replacement in patients undergoing bariatric surgery.

Pathway 12	Vitamin deficiency in renal failure

/1

Renavit SI	Renavit tablets	1 tablet daily.

Prescribing notes	• Renavit is a specific multivitamin preparation for use in dietary management of water-soluble vitamin deficiency in renal failure patients receiving dialysis. It is classed as a food for special medical purposes as approved by ACBS (Advisory Committee on Borderline Substances).

Group	**Obesity**
Condition	**Obesity**

Opening text	**Refer to local board weight management guidance. Access to treatments are subject to local board care pathway arrangements, care pathways are currently under development and yet to be agreed.** In NHS Borders, for further details, see Adult Weight Management Team guidelines for details In NHS Fife, for further details refer to local weight management guidance. In NHS Lothian for further details see RefHelp Adult Weight Management Service or Paediatric Weight Management Service guidelines for details.

Guidance links	NICE CKS: Obesity SIGN 172 Prevention and Remission of Type 2 Diabetes

Adult Pathway 1	Adjunctive treatment for weight management

/1

Refer to local board weight management guidance for advice on dietary and lifestyle changes and referral criteria for local board care pathway

/2

Where drug treatment is indicated as an adjunct to reduced calorie diet and increased physical activity as part of an integrated approach to weight management.

	Liraglutide SI	Saxenda 6mg/ml solution for injection 3ml pre-filled pens	By subcutaneous injection, Initially 0.6 mg once daily, then increased in steps of 0.6 mg, dose to be increased at intervals of at least 1 week up to a maintenance dose of 3 mg once daily or the maximum tolerated dose has been reached. Consider discontinuation if escalation to the next dose is not tolerated for 2 consecutive weeks. Discontinue if at least 5% of initial body-weight has not been lost after 12 weeks at maximum dose; maximum 3 mg per day.
OR	**Semaglutide** SI	Wegovy FlexTouch 0.25mg/0.37ml solution for injection 1.5ml pre-filled pens Wegovy FlexTouch 0.5mg/0.37ml solution for injection 1.5ml pre-filled pens Wegovy FlexTouch 1mg/0.75ml solution for injection 3ml pre-filled pens Wegovy FlexTouch 1.7mg/0.75ml solution for injection 3ml pre-filled pens Wegovy FlexTouch 2.4mg/0.75ml solution for injection 3ml pre-filled pens	Refer to product literature for dose

Needles are not included with the Mounjaro KwikPen, prescribe needles compatible with Kwikpens.

OR	**Tirzepatide** SI	Mounjaro KwikPen 2.5mg/0.6ml solution for injection 2.4ml pre-filled pens Mounjaro KwikPen 5mg/0.6ml solution for injection 2.4ml pre-filled pens	By subcutaneous injection, initially 2.5 mg once weekly for 4 weeks, then increased to 5 mg once weekly for at least 4 weeks, then increased if necessary up to 15 mg once weekly, dose to be increased in steps of 2.5 mg at intervals of at least 4 weeks. Assess benefit of continuing

	Mounjaro KwikPen 7.5mg/0.6ml solution for injection 2.4ml pre-filled pens Mounjaro KwikPen 10mg/0.6ml solution for injection 2.4ml pre-filled pens Mounjaro KwikPen 12.5mg/0.6ml solution for injection 2.4ml pre-filled pens Mounjaro KwikPen 15mg/0.6ml solution for injection 2.4ml pre-filled pens	treatment if at least 5% of initial body-weight has not been lost after 6 months at highest tolerated dose.

/3

Where drug treatment is indicated as an adjunct to reduced calorie diet and increased physical activity as part of an integrated approach to weight management.

Orlistat SI	Orlistat 120mg capsules	120 mg up to 3 times a day, dose to be taken immediately before, during, or up to 1 hour after each main meal, continue treatment beyond 12 weeks only if weight loss since start of treatment exceeds 5% (target for initial weight loss may be lower in patients with type 2 diabetes), if a meal is missed or contains no fat, the dose of orlistat should be omitted.

Prescribing notes	• Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) and GLP-1 RA/glucose-dependent insulinotropic polypeptide receptor agonists (GIP RAs) for the treatment of obesity are prioritised for use in those with a BMI of ≥38kg/m2 (≥35kg/m2 for members of minority ethnic groups known to be at equivalent risk of the consequences of obesity at a lower BMI than the white population) in the presence of at least one weight-related comorbidity. For more information refer to Consensus statement: national criteria for the prioritisation of glucagon-like peptide-1 receptor agonists (GLP-1 RAs) and GLP-1 RA/glucose-dependent insulinotropic polypeptide receptor agonists (GIP RAs) for the treatment of obesity in NHS Scotland NHS Scotland - Publications • Where more than one treatment is considered suitable choose the product of lowest acquisition cost. • GLP-1 RAs and GIP RAs must be avoided during pregnancy. Any individuals of childbearing potential are advised to use effective contraception whilst using GLP-1 RAs and GIP RAs. For further information including patient information leaflet see Faculty of Sexual and Reproductive Healthcare (FSRH) drug interaction guidance.

	• **Orlistat** is available as an adjunct in obesity (in conjunction with a mildly hypocaloric diet in individuals with a body mass index (BMI) of 30 kg/m^2 or more or in individuals with a BMI of 28 kg/m^2 or more in the presence of other risk factors such as type 2 diabetes, hypertension, or hypercholesterolaemia). • **Orlistat** is available to buy over the counter from pharmacies, under the brand name Alli. It is licensed for those with a BMI > 28kg/m^2, and is available as 60mg capsules.

ITP Clinical Management Guideline

Title: **ITP Clinical Management Guideline**			
Date effective from:	28/11/2025	**Review date:**	28/11/2028
Version	4	**Supersedes:**	ITP Clinical Management Guideline V3
Approved by:	Haematology Management Team		
Approval Date:	01/05/2025		
Author/s:	Dr Alice Klauser- Haematology Consultant Katrina Yu- Lead Pharmacist- haematology/ immunology		
Executive Lead:			
Target Audience:	All staff members involved with management of ITP		
Keywords (min. 5):	Immune thrombocytopenia Purpura, idiopathic thrombocytopenic purpura, ITP, thrombocytopenia, platelets		

Version Control: Review and Amendment Log

Date	Author	Version/Page	Reason for change
May 2025	Dr. Alice Klauser- Haematology Consultant Katrina Yu, Lead pharmacist- haematology/ immunology	3	Updated formatting of guideline, added in treatment options for persistent ITP
October 2025	Dr. Alice Klauser- Haematology Consultant Katrina Yu, Lead pharmacist- haematology/ immunology	4	Moved eltrombopag from 5th to 2nd line in the treatment options for persistent ITP

Contents

1. Objectives

To describe a policy for the diagnosis and first line management of immune thrombocytopenia (ITP) in adults.

2. Purpose

To facilitate the acute management of patients with ITP based on currently available evidence.

3. Scope

ITP is defined as a platelet count < 100 x 109/L in the absence of other causes or disorders that may be associated with thrombocytopenia (American Society of Haematology, 2011). This policy refers to adult patients presenting with ITP to the Departments of Haematology at the Royal Infirmary of Edinburgh, St John's Hospital and Western General Hospital. It is relevant for the following staff groups.

- Medical
- Nursing
- Pharmacy

4. Diagnosis

The diagnosis of ITP is made by exclusion of secondary causes of thrombocytopenia as there are no diagnostic tests to confirm ITP.

History and physical examination are essential especially to look for haemorrhagic tendency (see 6) and also atypical features (see 5.4). Medications should be carefully reviewed to look for drug causes of thrombocytopenia. The recommended investigations at diagnosis are:

- Full blood count and blood film
- Coagulation screen and Ddimer
- ABO, RhD grouping
- U&Es, LFT, TFTs
- HIV, Hep B and Hep C screen
- Helicobacter antigen testing on stool sample
- Serum immunoglobulins and protein electrophoresis
- Autoantibodies – Lupus screen, DAT, ANA, ds-DNA if ANA positive (Connective tissue screen or vasculitis screen if symptoms suggestive of these conditions.)

ITP is less likely if there are atypical features such as constitutional symptoms, lymphadenopathy, hepatosplenomegaly, abnormalities in the FBC and blood film other than thrombocytopenia or coagulopathy. In such cases with atypical features, further investigations such as a bone marrow examination should be performed before a diagnosis of ITP is made.

5. Assessment

- ITP patients with a platelet count < 20 x 10^9/L must be assessed by a Haematology Registrar or Consultant.
- Determine the timing, location and severity of bleeding symptoms
- Look for mucosal bleeding, blood blisters in mouth, retinal haemorrhages (fundoscopy essential).
- Identify additional risk factors for bleeding, e.g. antiplatelet drugs, anticoagulants, known bleeding disorder, recent surgery, uncontrolled hypertension, lifestyle factors.
- Findings must be clearly documented.

6. Management

Consider treatment for ITP patients with a platelet count < 20 x 10^9/L or with significant haemorrhagic symptoms. For most patients, hospitalisation is usually not required, but may be indicated in the following (The Registrar must inform the Consultant of admission of an ITP patient):

- Severe mucocutaneous or internal bleeding (GI, CNS, retinal, urological)
- Platelet count less than 10 x 10^9/L **or** platelet count less than 30 x 10^9/L and haemorrhagic features.

For ITP inpatients, clinical symptoms and signs suggestive of critical haemorrhage must be monitored. A handover to the nursing staff must be explicit for monitoring these:

- Petechiae, purpura, bruising
- Mucous membranes (e.g. blood blisters in oral mucosa)
- Melaena, blood per rectum
- Haematuria
- Headache and/or visual symptoms
- Focal neurological signs

6.1 General measures

- Stop antiplatelet agents or anticoagulants.
- Aim to support and maintain Hb >100 g/L.

6.2 Pharmacological treatment of acute ITP

1) Corticosteroids

Dexamethasone 40mg once daily orally for 4 days

- Repeat FBC at Day 4. If counts improving, monitor and repeat FBC at Day 7-10. If suboptimal response, repeat steroid pulse.
- If age >70 use dexamethasone 20mg/day for 4 days.
- Do not use more than 3 pulses total, switch to prednisolone if weaning required.

Or Prednisolone 1mg/kg (max 80mg) once daily orally for 7-14 days with appropriate gradual weaning over 6 weeks. If no response in 2 weeks at maximum dose, to wean and stop.

Co-prescribe PPI- **lansopraozole 30mg OD or omeprazole 20mg OD** for gastro-protection.

If patient is elderly- age> 65 years old, or likely to remain on steroids > 6 weeks, to co-prescribe bone-protection **Accrete D3 One a Day 1 tab OD** and consider bisphosphonate **alendronic acid 70mg once weekly**- *to counsel patient on administration.* Patients should also be given a Steroid Alert Card

Monitor blood glucose – when severely thrombocytopenic avoid finger pick testing use venous blood samples at time of venepuncture.

If there is no response (platelets <30 x10^9/L) consider 2nd line treatments.

2) IV immunoglobulin (IVIg) 1 g/kg as a single dose is recommended in the following situations

- Uncontrolled bleeding, CNS (including fundal haemorrhages), GI (including mucous membrane blood blisters) or urological bleeding
- Rapid response required (e.g. prior to emergency surgery, trauma)
- Corticosteroids contraindicated
- A second dose may be considered after 24-48 hours if severe or life-threatening bleeding. E.g. intracranial bleed or gastrointestinal/ pulmonary haemorrhage

An IVIG request form is required. This should be sent to pharmacy for a clinical check and dispensing during normal working hours. This is also stocked in the Emergency Drug Cupboard at each site if needed out of hours.

Platelet transfusion may be considered in addition to corticosteroids and IVIg if there is life-threatening haemorrhage or critical site bleeding.

3) Tranexamic acid 1g TDS PO if there is acute bleeding (excluding urological bleeding)
Control of menstrual bleeding initiate medroxyprogesterone (Provera), or if contraception required desogestrel can be used.

6.3 Pharmacological treatment in persistent ITP

For patients who are unresponsive to first line treatment options or with persistent (symptoms lasting 3-12 month) or chronic (symptoms last over 12 months)

1) Rituximab 100mg weekly for 4 weeks IV

Consider rituximab first, especially for younger patients wishing to conceive or patients not wanting to take TPO memetics, or patients with secondary immune thrombocytopenia, eg. SLE. For patients who are wanting to avoid injections or immunosuppression, TPO memetics should be used.

Ensure patient is counselled on side effects and consent form must be completed, signed and filed into patient's notes. Rituximab should be prescribed on the standardised *Rituximab for ITP* prescription chart as well as on HEPMA- unless the patient is receiving rituximab as a daycase and HEPMA is unavailable.

Baseline bloods should be taken prior to treatment, repeated prior to each dose, and reviewed by the clinician when prescribing the next dose. **Pre-medication with oral paracetamol 1g, IV chlorphenamine 10mg** (+/- IV hydrocortisone) should be administered, with **paracetamol, chlorphenamine, salbutamol and hydrocortisone available as prn meds for any infusion related reactions**- see rituximab prescription for further details.

Patients with secondary ITP may be prescribed a higher dose of rituximab 1g at day 1 and 15. This should be discussed with the haematology consultant.

2) Eltrombopag 50mg OD

Titrate as per response, up to a maximum of 75mg OD. Patients of East Asian origin should be initiated at 25mg. Aiming for a target platelet level of 150 x 10^9/L. If platelets are >150 x 10^9/L for at least 2 weeks, discuss with consultant to consider if dose reduction or discontinuation required.

Each dose should be taken at least 2 hours before or 4 hours after any dairy products (or foods containing calcium), indigestion remedies, or medicines containing aluminium, calcium, iron, magnesium, zinc, or selenium to reduce possible interference with absorption.

Monitor liver function prior and periodically during treatment as eltrombopag can sometimes cause hepatic disorders.

3) Avatrombopag 20mg OD

Monitor platelet levels regularly and uptitrate to 40mg OD if platelets remain at <50 x 10^9/L after 2 weeks. Target platelet level is 150 x 10^9/L. If platelets are >150 x 10^9/L for at least 2 weeks, discuss with consultant to consider if dose reduction or discontinuation required.

4) Romiplostim 1microgram/ kg weekly SC

Initiate at 1 microgram/kg, or 3 micrograms/kg if severely haemorrhagic, and gradually uptitrate dose (maximum of 10micrograms/kg weekly) guided by platelet levels, with a target of 150 x 10^9/L. If platelets are >150 x 10^9/L for at least 2 weeks, discuss with consultant to consider if dose reduction or discontinuation required.

If patients are going home on romiplostim, ensure they are trained on self-administration of the 250microgram pre-filled syringes (PFS). 125 micrograms strength is available but not as a PFS so should be reserved for inpatient use only.

If patients are stable and to continue avatrombopag/ romiplostim/ eltrombopag long term, please discuss with pharmacist to consider switching to Homecare for ongoing supply as they are HOSPTIAL ONLY medicines.

5) **Other treatment**

a. **Immunosuppressive agents- MMF, azathioprine, tacrolimus**
b. **Fostamatinib (non-formulary request form needed)**
c. **Dapsone**
d. **Cyclophosphamide-** to also add in co-trimoxazole 960mg three times/ week for PJP prophylaxis

6) **(Non-pharmacological) Splenectomy**

7. ITP in special circumstances

Follow American Society of Haematology evidence-based practice guideline for management of ITP in the following situations:

- Pregnancy
- Refractory ITP

8. Follow up

Patients with acute, persistent and chronic ITP will be followed up in haematology clinic with an aim to maintain platelets >150 x 10^9/L

9. References

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4. Diagnosis and Management of Immune Thrombocytopenia (ITP) in Adult Patients. Cardiff and Vales University Health Board. Approved Sept 2022. Review: July 2024

5. South East London guideline for the investigation and management of Immune Thrombocytopenia (ITP) in adult patients over 18 years old. Guy's and St Thomas' NHS Foundation Trust. Approved July 2020. Review: July 2022 (no further updated version available)

10. Appendix

Treatment Flowchart

Acute ITP

with a platelet count < 30 x 10^9/L or with significant haemorrhagic symptoms

Oral prednisolone 1mg/kg (max 80mg) for 7-14 days (to be weaned over 6 weeks)

Or oral Dexamethasone 40mg OD for 4 days (20mg OD if over 70). Max 3 pulses.

+PPI for gastro-protection, **+/- Calcium/vit D and bisphosphonate** for bone protection

+/- Tranexamic acid 1g TDS for 7-14 days if signs of bleeding

Critical bleeding, unresponsive or contraindication to steroids

IVIG 1g/kg as a single dose

Second dose may be given in 24-48 hours if needed

Persistent ITP

Unresponsive to 1st line treatment options or with persistent (symptoms lasting 3-12 months)

Patients wanting to avoid injections or immunosuppression

IV Rituximab 100mg weekly for 4 weeks

If poor response, or platelets fluctuating and not achieving a sustained response.

TPO memetics

1. **Eltrombopag 50mg OD**
   - Max 75mg OD
   - Avoid dairy products, indigestion, iron supplements for at least 2 hrs before or 4 hrs after
2. **Avatrombopag 20mg OD**
   - Max 40mg OD
3. **Romiplostim 1microgram/kg weekly (FRIDGE)**
   - Or start at 3 micrograms/kg if severely haemorrhagic. Max 10micrograms/ kg weekly
   - If patient prefers weekly s/c injections or compliance could be an issue
   - Considered if patients are having surgery and can't eat, or if GI disease where absorption may be an issue

Consider Homecare if ongoing use of TPO memetics. Speak to the haematology pharmacist to arrange this