Thrombocytopenia in pregnancy

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

This guideline is for use by the following staff groups:
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Approved by Medicines Safety Committee on:	N/A
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Key amendments to this guideline

Date	Amendment	Approved by:
4th June 2024	Document extended for another 12 months whilst under review	Maternity Governance
22/05/2026	Reviewed and minor amendments made – no clinical changes	Maternity Governance

Inclusion statement

We recognise that although our policy uses words such as women/woman, not all birthing people or post-natal parents will identify as such. We encourage all staff to be welcoming of the diversity of our local population, be respectful of preferred language, pronouns, and adapt their communication appropriately. All staff should accommodate mothers and parents with individual needs or disabilities, whether they be physical or not visible, and adapt their care to support them with their pregnancy.

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Is there National Guidance Available for this guideline?	Yes
National Guidance used to inform guideline *e.g. NICE/RCOG*	Thrombocytopenia in pregnancy | Hematology, ASH Education Program | American Society of Hematology
Does the guideline follow National Guidance if available? *If no, what rationale has been used.*	No
If no national guidance available or national guidance not followed, what evidence has been used to inform guideline.	
Ratified at Maternity Guidelines Forum:	22/05/2026

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Introduction

The platelet count falls during pregnancy with about 5% of pregnancies becoming thrombocytopenic (<150x10^9/L)(1). In the majority of cases the thrombocytopenia is benign (gestational thrombocytopenia) and no treatment is required for the mother or infant. Before a diagnosis of gestational thrombocytopenia can be made other causes of thrombocytopenia must be excluded as several of these require treatment. This guideline will discuss the diagnosis of thrombocytopenia in pregnancy and the management of gestational thrombocytopenia.

Screening, Diagnosis and Causes of Thrombocytopenia

Screening for thrombocytopenia

Routine bloods are taken at booking and 28 weeks gestation for full blood count (FBC). Other common indications for screening for thrombocytopenia would be bleeding, bruising, pre-eclampsia, the appearance of a petechial rash, and screening for heparin induced thrombocytopenia (FBC performed every fourth day on days 4, 8, 11 and 16 during **treatment** dose heparin).

Women with No bleeding and Platelets </= 100x109/L require monthly counts, and increase monitoring frequency if platelets drop below 80x109/L

Diagnosis of thrombocytopenia

Patients who are found to be thrombocytopenic (<130x10^9/L) should have a repeat FBC using citrated tube (blue bottle) to avoid EDTA-induced Pseudo thrombocytopenia.
If confirmed low platelet, they should have a repeat full blood count together with blood film (marked FAO On-call Consultant Haematologist). A detailed history and examination should then be performed by medical staff looking for common causes of thrombocytopenia.

Causes of thrombocytopenia in pregnancy – see Appendix 1

Diagnosis of gestational thrombocytopenia

In patients found to be thrombocytopenic the diagnosis of gestational thrombocytopenia can be made if the following apply:

- Platelet count- greater than 70x10^9/L but less than 150 x10^9/L.Gestational thrombocytopenia rarely drops below 80x109/L and counts below 70 should prompt investigation for other causes (e.g., ITP). (RCOG/UK Consensus)
- Late pregnancy (Second or third trimester)
- No history of thrombocytopenia outside pregnancy or 6 weeks post-partum
- No history of bleeding/bruising.
- No family history of thrombocytopenia/bleeding/bruising.
- Normal blood film.
- No recent drugs that may cause thrombocytopenia.
- No other cause suspected for the thrombocytopenia.
- No evidence of pre-eclampsia.

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Management of gestational thrombocytopenia

- Patients should have the diagnosis explained to them, with emphasis on the benign nature of the condition.
- Patients should be counselled to present immediately if they develop any problems with bleeding or bruising. Anaesthetic referral to discuss implications regarding epidurals/spinal should be discussed if platelet counts are <100 x10^9/L.
- FBC should be performed every month if platelet count below 100 and the diagnosis rethought if the platelet count falls <70 x10^9/L.
- An FBC should be performed when the patient is admitted either in labour or for a planned delivery.
- Discharge information should be sent to the GP to request a repeat FBC 2-3 months after delivery to ensure resolution. Women with persistent thrombocytopenia should be referred to haematology outpatients.

Initial management of thrombocytopenia other than gestational thrombocytopenia

- The advice of a consultant haematologist should be sought for all women whose platelet count is <80 x10^9/L. Any patient presenting with bleeding/bruising/ thrombosis and/or a platelet count <50x10^9/L must be discussed immediately with the on-call consultant haematologist.
- All suspected thrombotic thrombocytopenia purpura (TTP), post-transfusion purpura and heparin-induced thrombocytopenia must be discussed immediately with the on-call consultant haematologist.
- All suspected pre-eclampsia/eclampsia and haemolysis, elevated liver enzymes and low platelets (HELLP) must be discussed immediately with the on-call consultant obstetrician.
- All suspected haemolytic uraemic syndrome (HUS) must be discussed with the on-call medical team.
- All suspected disseminated intravascular coagulation (DIC) cases must have an urgent coagulation screen performed and a cause for the DIC sought and management plan made with multi-disciplinary input (consultant haematologist, consultant microbiologist, consultant obstetrician, consultant anaesthetist).

Platelet count thresholds for anaesthetic procedures and mode of delivery

Consider assessing the patient for additional bleeding risk factors e.g. DIC or antiplatelet medication
Obstetric indications should determine the mode of delivery rather than the platelet count. Clinicians are encouraged to discuss cases with the on-call haematologist.
Platelet count > 75 x10^9/L – safe for all procedures including regional anaesthesia
Platelet count between 50-75 x10^9/L—individualized approach after discussion between anaesthesia team and patient.
Platelet count <50 x10^9/L – major operative procedures and anticoagulants contra-indicated.
Platelet count <30 x10^9/L – Discuss with haematology to optimise PLT count before delivery.

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Low molecular heparin use

Low molecular weight heparin is commonly used in pregnancy. It can be safely prescribed if the platelet count is >75x10^9/L, providing there is no excessive bleeding or bruising. Patients whose platelet count falls below this threshold and have an indication for anticoagulation should be discussed with a haematologist.

Management of the neonate born to a mother with thrombocytopenia

Neonates born to thrombocytopenic mothers are at risk of being thrombocytopenic and hence bleeding although this risk is very low [1,4,6]. Approximately 10% of babies born to thrombocytopenic mothers have a platelet count <50 x10^9/L with 4% having a count <20 x10^9/L[1].

However to reduce the theoretical risk to the baby high risk procedures (foetal blood sampling, foetal scalp electrodes, high forceps and ventouse) should be avoided in mothers with a platelet count <100 x10^9/L or a past history of immune thrombocytopenia purpura (ITP). These instructions should be clearly documented in the hospital and handheld record.

For all these women a paediatric alert form should be completed in the antenatal clinic for individual neonatal management after birth.

- **Obtain cord platelets count if maternal platelets <100 or ITP history.**

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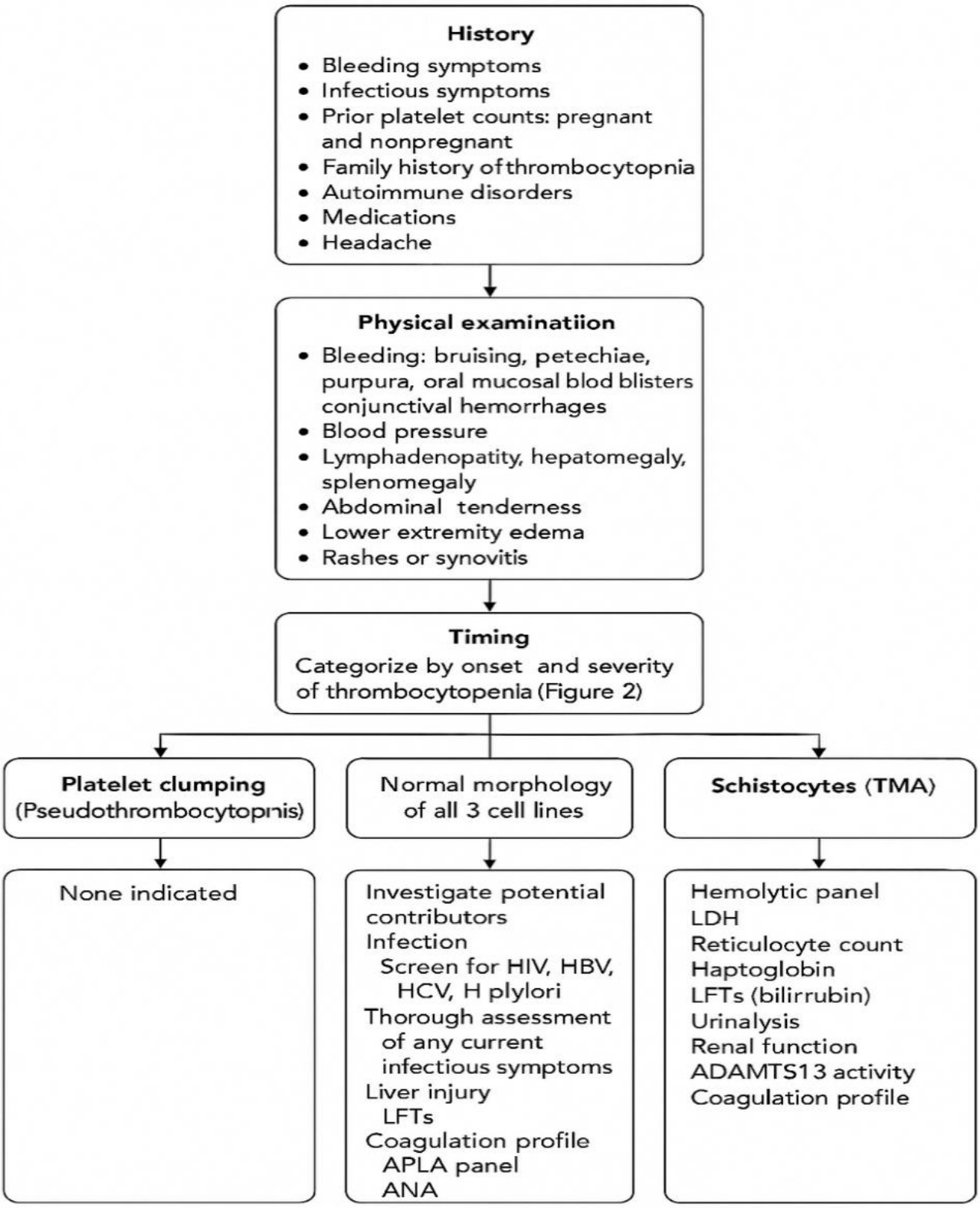
Table 1. Characteristic features and management of specific thrombocytopenias in pregnancy

		Presenting stage of pregnancy	Degree of thrombocytopenia	Associated clinical features	Primary treatment
GT		Late	Mild	Normal physical examination and laboratory profile	Observation
ITP		Any trimester or PP	Mild to severe	Bleeding when thrombocytopenia is significant Consider acute or chronic infections as potential triggers, or syndrome with other autoimmune diseases	First-line therapy Corticosteroids and IVIG Second-line therapies Azathioprine Cyclosporine Rituximab Splenectomy (rarely performed) TPO mimetics (off-label use)
TMAs	PEC/HELLP	Must be 20+ wk Typically third trimester Possible early PP	Mild/moderate	Transaminitis Normal to severe Renal injury Rare/mild Coagulopathy Rare/mild Neurologic Headache common Seizure/CVA rare	Fetal delivery In addition to delivery Aggressive HTN control Aspirin Magnesium *Betamethasone as needed for fetal lung maturity
	AFLDP	Late in pregnancy or immediately PP	Mild/moderate	Transaminitis Severe (RUQ pain, nausea, and vomiting are common) Renal injury Mild/moderate Coagulopathy Often severe Neurologic Encephalopathy	Fetal delivery Unlikely to fully resolve liver injury Liver transplantation may be required Assess for fatty acid oxidation enzyme defects
	TTP	Any trimester or PP	Severe	Transaminitis Rare Renal injury Mild or absent Coagulopathy Rare Neurologic Transient focal defects possible, progressive without treatment	Plasma exchange for acquired TTP Fresh frozen plasma simple transfusion for congenital TTP
	cm-HUS	Typically PP Evenly distributed in trimesters when ante partum	Moderate	Transaminitis Rare/mild Renal injury Severe Coagulopathy Rare/mild Neurologic Rare	Eculizumab Renal replacement therapy may be required
	CAPS	Any trimester or PP	Mild to severe	Transaminitis Rare/mild Renal injury Rare to severe Coagulopathy Common Neurologic Increased risk for CVA	Therapeutic anticoagulation

AFLDP, acute fatty liver disease of pregnancy; CAPS, catastrophic antiphospholipid antibody syndrome; cm-HUS, complement-mediated hemolytic uremic syndrome; CVA, cerebrovascular accident; HTN, hypertension; PEC/HELLP, preeclampsia/hemolysis, elevated liver enzymes and low platelets; PP, postpartum; RUQ, right upper quadrant.

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Diagnostic approach to thrombocytopenia in pregnancy



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Appendix 1 – Causes of thrombocytopenia in pregnancy

Cause	Findings on history	Findings on examination	Laboratory findings	Notes
Alcohol	May be none	May be none	May be none	Ethanol excess, especially binge drinking, can cause thrombocytopenia.
Auto-immune disease	May be none but history of rash, autoimmune disease.	May be none but may have rash.	May be none	Several autoimmune diseases, especially antiphospholipid syndrome can cause thrombocytopenia.
DIC	Usually has a precipitating factor e.g. malignancy, infection, retained products.	May be none	Low platelet count, may have prolonged clotting times, low fibrinogen and raised d-dimers.	
Drug induced thrombocytopenia	History of drug (either prescription, over-the-counter, illict or herbal) use	May have none	Usually isolated thrombocytopenia	Large numbers of drugs have been described causing thrombocytopenia. BNF should be consulted. If a drug is still suspected and there is no information in the BNF contact Medicines Information on ext. 30235.
EDTA induced pseudothrombo-cytopenia	None	None	Platelet clumping on blood film	An in-vitro phenomenon where the patients platelets clump in EDTA giving falsely low readings. True count is usually normal. Repeating the platelet count using a citrate (light blue coag) tube may help.
Gestational thrombocytopenia	No bleeding/bruising, no history of thrombocytopenia outside pregnancy/ puerperium, no family history	None	Platelets >70 x10^9/L with normal blood film	Diagnosis made when all other causes are excluded
HELLP	Features of pre-eclampsia	Hypertension	Low platelet count, red cell fragments and abnormal liver function.	
Heparin-induced thrombocytopenia	History of heparin exposure, including low-molecular weight.	May have thrombosis	Isolated thrombocytopenia	Occurs classically 4-14 days into heparin treatment (or 24 hours if previous heparin exposure in the last 100 days), may be associated with thrombosis.

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Cause	Findings on history	Findings on examination	Laboratory findings	Notes
HUS	May have bloody diarrhoea	May have none	Low platelets, red cell fragments and severe renal dysfunction	
Hypersplenism	May be none	Splenomegaly	May also have low Hb and white cells.	
Infections	May be at risk	May have features		HIV, Hepatitis C, rubella, varicella, H.pylori, CMV and EBV can all cause thrombocytopenia.
Inherited thrombocytopenias	May have history of bleeding/bruising, family history of low platelets/bleeding/ bruising/deafness	May have none but others have morphological abnormalities	Low platelets (often large or agranular) and may have white cell inclusions	
ITP	May have bleeding/bruising and/or thrombocytopenia outside pregnancy/puerpurum	None	Platelets may be <70 $x10^9$/L. Normal blood film.	Often indistinguishable from gestational thrombocytopenia.
Marrow failure syndromes	Variable	Variable	May have other cytopenias and usually have abnormal morphology	
Post-transfusion purpura	History of recent blood product.	Very haemorrhagic	Thombocytopenia may be only feature	Severe thrombocytopenia with haemorrhage presenting 5-10 days after blood products.
Pre-/eclampsia	May be none	Hypertension, proteinuria	Low platelet count, may have red cell fragments	
TTP	Neurological symptoms	Fever, neurological signs	Low platelets, red cell fragments and mild renal dysfunction	
Type 2B vWD	May have history of bleeding/bruising/ thrombocytopenia, family history of bleeding/ bruising/thrombocytopenia	May be none	Isolated thrombocytopenia	Platelet aggregation occurs when vW factor is released therefore periods of thrombocytopenia following trauma / surgery / pregnancy.

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References

Thrombocytopenia in pregnancy Douglas B. Cines,Lisa D. Levine *Hematology Am Soc Hematol Educ Program* (2017) 2017 (1): 144–151.

https://doi.org/10.1182/asheducation-2017.1.144

How I treat thrombocytopenia in pregnancy Annemarie E. Fogerty, David J. Kuter*Blood* (2024) 143 (9): 747–756.

Contribution List

This key document has been circulated to the following individuals for consultation;

Designation
Maternity Governance Meeting
Maternity Guidelines Committee

This key document has been circulated to the chair(s) of the following committee's / groups for comments;

Committee
Maternity Quality Governance Meeting

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Monitoring

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the Policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	Anaesthesia referral for any platelets below 100	Notes Audit	Yearly	Obstetric Doctors	Audit Meeting	Annually
	FBC in labour for patients with thrombocytopenia	Notes Audit	Yearly	Obstetric Doctors	Audit Meeting	Annually

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