



# ITP in Pregnancy

Management & Care

**Immune Thrombocytopenia (ITP)**

# Contents



Most women with ITP have healthy pregnancies and healthy babies.

Being told you have low platelets in pregnancy can feel worrying. You may have been diagnosed with ITP before becoming pregnant or it might be considered as a reason for low platelet counts during pregnancy.

This leaflet explains what ITP is, how it is treated during pregnancy, what to expect during birth and how your baby will be checked. Please remember that most women with ITP have healthy pregnancies and healthy babies. Your midwife, obstetric team and haematology team will look after you together.

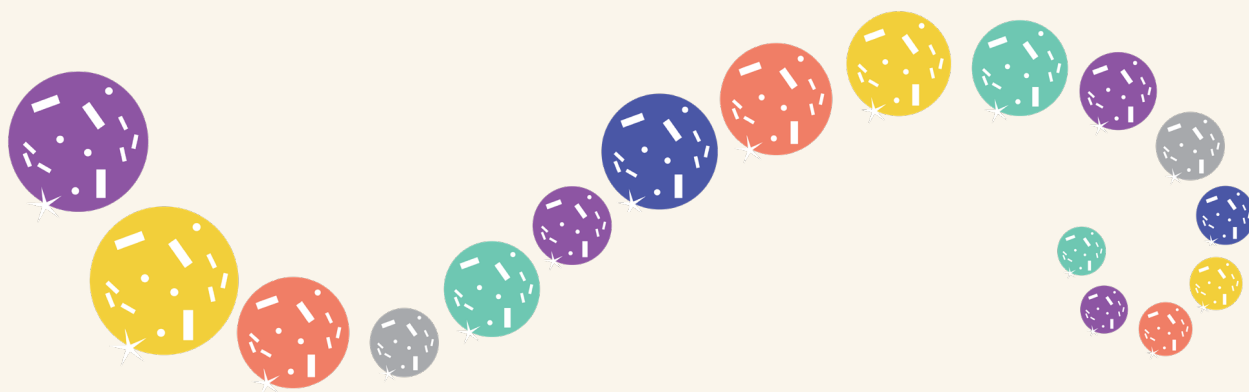
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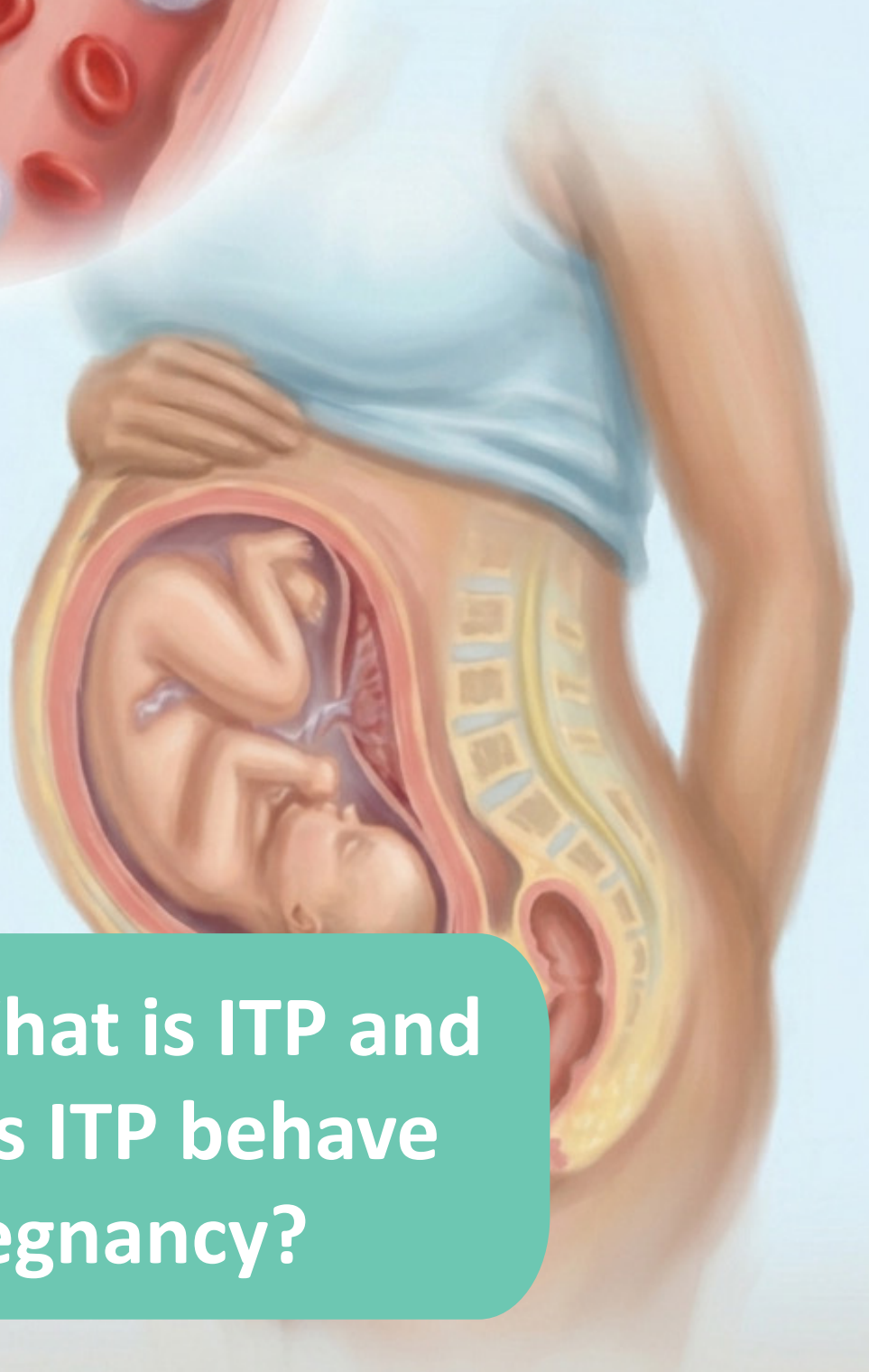
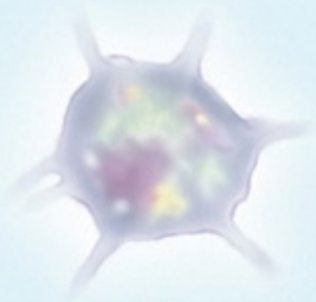
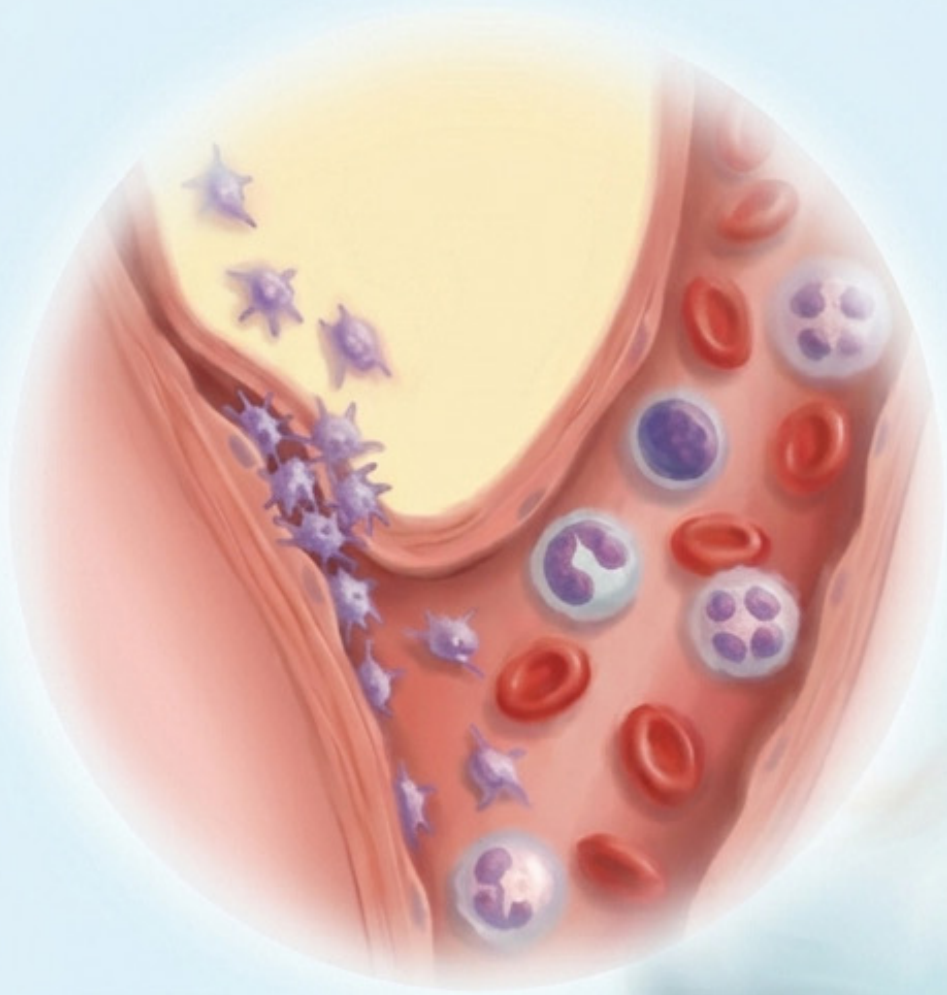
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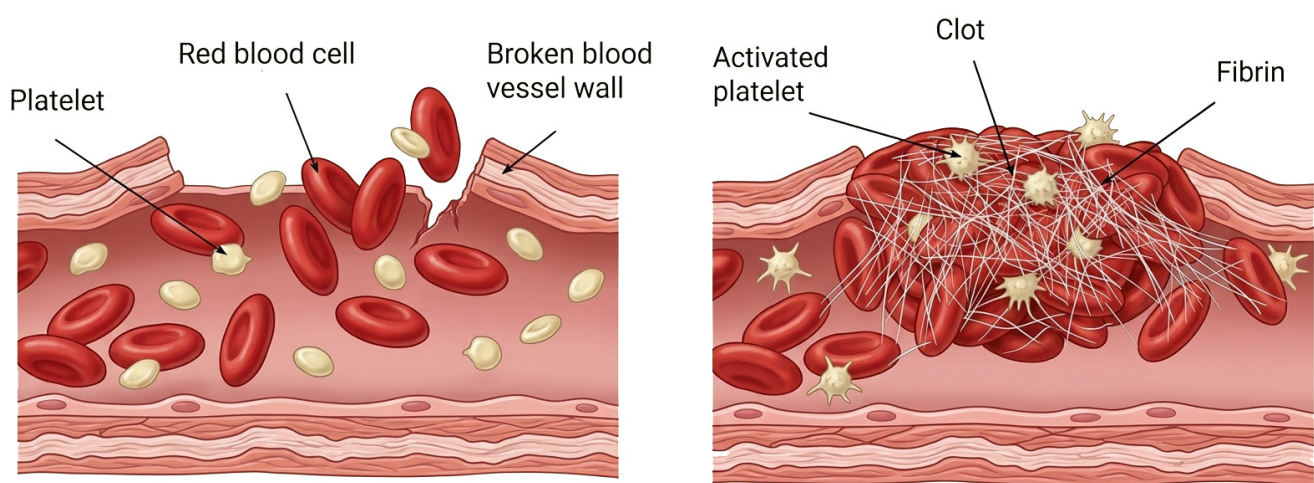
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**PART 1: What is ITP and how does ITP behave in pregnancy?**



Platelets form a plug to stop bleeding.

## What is ITP?

ITP stands for **immune thrombocytopenia**, previously known as idiopathic thrombocytopenic purpura.

**Platelets** are tiny cells in our blood, which help stop **bleeding and bruising**.

In ITP, the **immune system targets platelets** by mistake.

This means that the body breaks platelets down too quickly and can also lead to fewer platelets being made.

This can cause you to have **lower numbers of platelets** in your blood. If your platelet count becomes very low, it may cause bleeding.

## Antibodies

One of the ways that the immune system targets platelets, is by producing antibodies. Antibodies are proteins made by white blood cells (called lymphocytes). Antibodies are normally made to help you fight infections.

When antibodies target normal parts of your body, these are called **autoantibodies**. It is not clear exactly why people start making autoantibodies but they are found in a number of conditions. These are called Autoimmune Diseases – such as Lupus, Rheumatoid Arthritis and Type 1 Diabetes.

## Platelet Numbers (a simple guide)

Very low  
<30

Mildly low  
30-150

Normal  
150-400

- A **'normal'** platelet count is somewhere between 150-400 (billion per litre of blood).
- A **mildly low** platelet count does not usually cause any problems
- A platelet count of **less than 30** makes bleeding symptoms more likely, but even then, most people with ITP feel well and have no symptoms at all



## Bleeding Symptoms

Symptoms of bleeding can include: easy bruising, nose or gum bleeding, petechiae (small pin-prick blood spots that can look like a rash), and mouth blisters (which can look purple or black). Rarely, at very low platelet counts, serious bleeding can occur. This is uncommon, and your team will monitor you closely to prevent this.

In pregnancy, some vaginal spotting or bleeding can occur, which may or may not be related to the platelet count. Nose bleeds (epistaxis) are also quite common but are also seen in pregnancy without ITP. It is important to consider these and, if you are worried or you think they are excessive, contact your teams to discuss them.

## How does ITP behave in pregnancy?

You may:

- Already have ITP before pregnancy, or
- Be found to have low platelets during pregnancy

Low platelet counts in pregnancy are fairly common and could have a number of different causes. The commonest cause is simply a low platelet count related to the pregnancy itself. This is called gestational thrombocytopenia. **This is harmless but the platelet counts would be monitored with blood tests.** There is no single test to diagnose ITP so your medical team may want to arrange extra tests – usually blood tests – to check for other causes, including causes that are specific to pregnancy. ITP is more likely in patients with a family history or personal history of autoimmune disease, and when the platelet count is less than 70.

## Most women with ITP...

Do not need treatment

Have **regular blood tests** to monitor platelets

Can have a **normal pregnancy and birth**

It is difficult to predict whether platelet levels will stay the same, fall, or improve during pregnancy. You will have your platelet count checked with regular blood tests. Platelet counts can sometimes fall later in pregnancy, especially in the third trimester. If this happens, there are safe treatments available.

## Treatment may be offered to you if...

Your **platelets fall below 20**

Toward the end of pregnancy, when **nearing the due date**, treatment may be started to get the count over 50 to prepare for delivery

You **experience bleeding symptoms**

The aim, if possible, is to have a platelet count of more than 50 to prepare for birth. For epidural anaesthetic a count of 70 or greater is usually preferred, whereas a spinal anaesthesia is considered above 50. Local

targets may differ and will depend on local practice and experience. Your midwives, obstetricians and haematology team will look after you together. You may be referred to a **joint obstetric–haematology clinic.**

You will have **regular blood tests** to check your platelet counts throughout pregnancy. These are commonly performed monthly for the first two trimesters, then increased to fortnightly from 28 weeks' gestation.

Depending on the platelet count results and your progress, these may be performed more or less frequently. This will be decided by your team during the course of your pregnancy.

## Is there anything I should do or avoid if I have ITP during pregnancy?



If you have been advised to have a vaccination during your pregnancy, please be reassured that these are considered safe. This will be fully discussed with you. A blood test can be performed to check your platelet count a week or so after the vaccine.

Check with your team before taking any medication or supplements



There are no specific food recommendations – a normal healthy diet is advised

Let your teams know if you have any concerns or experience bleeding symptoms



## Will ITP harm my baby?

### MOST CASES

In most cases, **no**.

ITP in pregnancy does not cause babies to have any bleeding whilst they are in the womb

### 10-15%

Sometimes, antibodies can cross the placenta later in pregnancy and lead to a reduced platelet count in the baby. About **1 in 10** babies from mums with ITP (10-15 %) may be born with lower platelet counts

### 1%

Very low platelet counts are **rare** (1%)

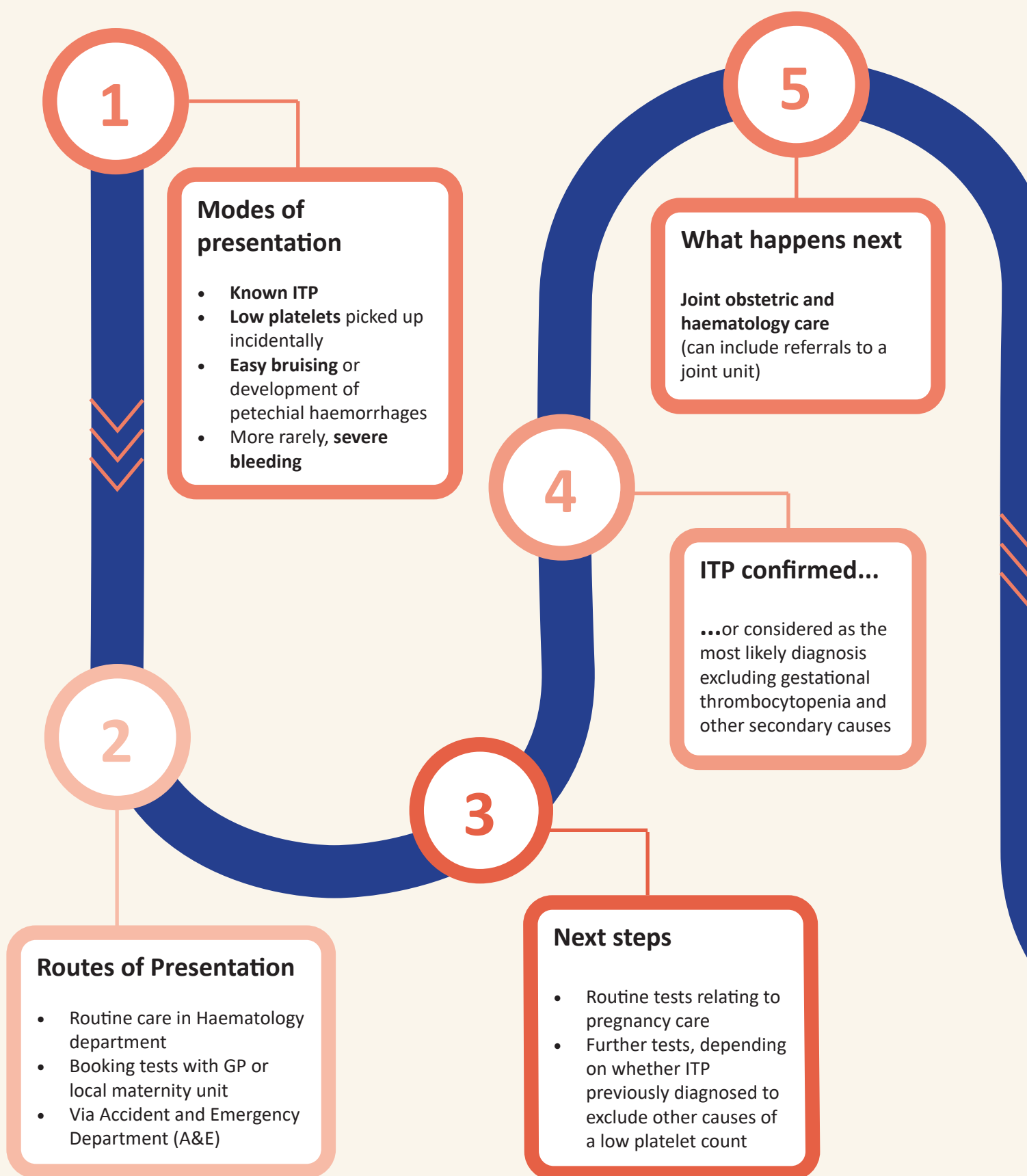
Serious bleeding in babies is **very uncommon**

Your baby will be checked after birth using umbilical cord blood and closely monitored further if needed.



**PART 2: Treatment of ITP in pregnancy.**

## Presentation and management pathway.



## Treatment decisions

- **Watch and wait** – monitor platelet count, symptoms and general progress.
- Treatment may need to be started **if the platelet count is very low**, or there are bleeding problems
- As pregnancy progresses, treatment may need to be given to aim for a platelet count of, at least, **50 in preparation for delivery**
- Decisions will be informed by **experience of previous pregnancies**
- The delivery options will be discussed depending on the platelet count and response to any treatment, so that **a birth plan can be agreed.**

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## Discussion and shared decision making

- Discussion between you, as the pregnant mother, the obstetrician, haematologist, a family member, clinical nurse specialist and/or other team member (e.g. anaesthetist)
- Develop a **management plan** for the pregnancy

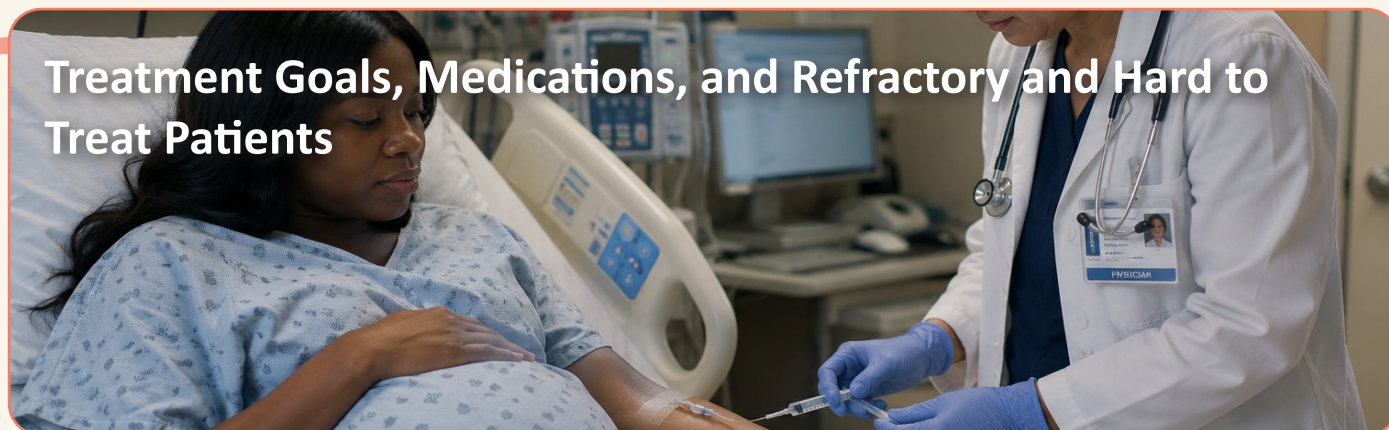
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## Follow-up

- The platelet count of the newborn baby will be checked from **umbilical cord blood at birth.**
- Depending on the baby's platelet count treatment may (rarely) be required, occasionally further check counts may be necessary
- **Reassurance that breastfeeding is generally safe. Your team will be able to advise if you are on specific medication or have concerns.**
- Discussion between the haematologist and the mother as to what further treatment or care options may be required, and to **reinforce an understanding of ITP**
- Collaborative decision making for ongoing management

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## Treatment Goals, Medications, and Refractory and Hard to Treat Patients



As outlined above, most women do not need treatment and your platelet count will be monitored throughout pregnancy. If treatment is needed, the aim is:

- To **reduce bleeding risk**
- To prepare for **safe delivery**
- Not to 'normalise' platelet numbers

### First Line Medications

#### Steroids (usually given as prednisolone tablets)

- Help reduce the immune attack on platelets
- Do **not significantly cross the placenta when given in low doses**
- The dose is adjusted depending on the response in your platelet count in order to keep it as low as possible. Higher doses may cross the placenta
- Side effects can include:
  - Mood changes
  - Fluid retention
  - Raised blood sugar or blood pressure
- You may be checked for **gestational diabetes**

#### IVIg (intravenous immunoglobulin)

- Given through a drip
- Contains antibodies from donated blood
- Can work quickly, but the effects may be temporary
- Often used close to delivery

### Medicines that are NOT safe in pregnancy

These ITP medicines are not used during pregnancy

Mycophenolate mofetil

Cyclophosphamide

Danazol

Vincristine

Fostamatinib



## Second Line Medications

These are used less often and usually given if first treatments do not work. Your team will carefully talk through the risk and benefit with you and choose

the treatment that is most suited to your particular circumstances. Some options are outlined below.

### Azathioprine

- Tablet taken daily
- Damps down the immune system
- A blood test for an enzyme (that helps your body break down the tablet) called TPMT is taken before starting azathioprine as the levels can vary between people
- Used safely in many pregnancies
- Breastfeeding is usually safe

### Rituximab

- Given as an infusion
- Targeted treatment that reduces the number of lymphocytes that make autoantibodies, used for several autoimmune conditions
- Effects may take several weeks and alternate treatments may be given in the interim.
- Unlikely to cross placenta if given early in pregnancy
- Babies exposed late in pregnancy will be advised to delay live vaccines

### Ciclosporin

- Tablet taken twice daily
- Damps down the immune system
- Needs blood tests to monitor levels
- Breastfeeding may be possible with specialist advice

The use of TPO-RAs (romiplostim & eltrombopag) is 'off licence' in pregnancy.

There is no evidence of avatrombopag (also a TPO-RA) use in pregnancy.

### Romiplostim - used off-licence

- Weekly injection (shallow injection into the fatty layer beneath the skin)
- Encourages platelet production
- Limited pregnancy data but reassuring so far, usually avoided earlier in pregnancy, usually used in the 3rd trimester but has also been used in the 2nd trimester in severe, unresponsive disease.
- There is limited evidence on use with breastfeeding but considered to be safe. As it is less likely to pass into breast milk.

### Eltrombopag - used off-licence

- Tablet taken by mouth but there are dietary restrictions
- Encourages platelet production and well established in ITP
- Less data in pregnancy but has been used successfully in selected cases
- As a small molecule probably crosses the placenta but no evidence of impact on the fetus
- There is some evidence that it is excreted in breast milk. It may cross into breast milk but the risks are considered very small.

## Harder-to-treat patients, who do not respond to first-line treatments

Occasionally, the response to treatment is not as expected, and additional medication or a combination of therapies are needed. In some cases, this may

include a platelet transfusion (which would usually be given just before or during delivery depending on need).

A photograph of a woman with her hair in a bun, wearing a light blue hospital gown, lying in a hospital bed. She is holding a newborn baby wrapped in a white blanket with red and blue stripes. The baby is wearing a matching striped hat. The woman has a red hospital ID band on her left wrist and an IV drip on her right hand. The background shows a hospital room with a window and medical equipment.

**PART 3: Labour  
and Birth**



## Platelet levels, birth planning and birth.



### Platelet levels needed for different types of birth

**These are target levels but may vary locally due to experience and practice**

Vaginal Birth

50 or above

Caesarean Birth

50 or above

Spinal Anaesthesia

50 or above

Epidural Anaesthesia

70 or above

### Birth Planning

- Your team will plan ahead to keep you safe and your birth plan will be developed with you so that you can discuss the various decisions
- Having ITP does not necessarily mean your birth plan will change
- Your obstetrician will discuss the options for delivery
- Induction of labour may be recommended if your platelet count is reducing in the third trimester. The drugs used to start labour do not affect platelet count
- We do not recommend caesarean section purely because of ITP but this may be discussed with you if you have had a baby with a low platelet count before
- The risk of intracranial haemorrhage in a baby with a reduced platelet count is low and a caesarean section does not necessarily reduce the risk

### Birth

We will not know if your baby has a low platelet count until they are born, so during the delivery we usually avoid using ways of helping you give birth that could cause bleeding, such as ventouse (suction cup), as well as fetal scalp electrodes and fetal scalp blood sampling.

If your baby is low in the pelvis and needs to be delivered urgently (e.g. because of signs of distress on the baby monitor), then your obstetrician will discuss with you the safest and most effective method to

do this. This may include a forceps, including one in which the baby's head needs to be turned gently.

A platelet count of 50 is considered safe for vaginal delivery and caesarean section, which is the level generally considered safe for spinal anaesthesia.

If your platelet count is below 50 and an emergency caesarean section is recommended, then you may require a platelet transfusion and may need a general anaesthetic

## Pain Relief Options in Labour



There are plenty of options for pain relief in ITP, even if your platelet count is low. Your obstetric anaesthetist

can discuss these with you in more detail. Safe options include:

**Paracetamol**  
Safe to use

**Gas and air (Entonox)**  
Widely available

**TENS Machine**  
Non-drug option

**Remifentanyl Drip**  
Can be used whatever the platelet count

**Epidurals and spinals depend on platelet levels**

There may be differing thresholds locally and the levels mentioned here are generally recognised reasonable targets. If you would like further information on the

different types of anaesthetic available to you in delivery please talk to your specialist obstetric team.

### Epidural

To be able to safely insert an epidural, the anaesthetist will usually advise that your platelets are above 70.

### Spinal

To be able to safely site a spinal anaesthetic, the anaesthetist will usually require your platelet count to be 50 or above along with a normal coagulation test.

### Pethidine

This is most often given as an intramuscular injection. It is generally avoided if platelet count is less than 50, due to the risk of bleeding at the injection site (lumpy bruise). Although at lower counts it may be given as a subcutaneous dose with pressure applied to the injection site.

### Remifentanyl

This is a patient-controlled drip given through a cannula into a vein and can be used in labour no matter what your platelet count is.



**PART 4: Your Baby**

## Cord blood testing and newborn checks happen after birth



### Checking the baby's platelet count

- Once your baby is born, a blood sample from the umbilical cord will be taken to check the baby's platelet count
- About 1 in 10 babies may have a low platelet count. Most of these babies are completely well and do not need treatment
- Even if the platelet count is low (neonatal ITP), your baby is likely to be well and be able to go home with you
- Neonatal ITP is much less dangerous to the baby and does not usually need treatment. If the baby's platelet counts are very low, extra checks including a brain scan may be done as a routine. If treatment is required this is usually with IVIg, and platelet transfusions

### How quickly platelet counts recover

- The low platelet count is short-lived and is due to antibodies passing from mum to baby. The antibodies are cleared within 6-8 weeks, during which time the platelets usually also recover
- If treatment has been given this may raise the platelet count faster.
- If your baby develops any bleeding, dark purple spots or becomes very sleepy or irritable after leaving the hospital, please return to the emergency department (ED/A&E) immediately or call 999. This is uncommon, but we want you to know what to look out for.

### Newborn blood spot (heel prick) test

- The Newborn Blood Spot Test (previously known as the Heel Prick Test) checks for certain rare but serious conditions
- It is a safe test and recommended for all newborn babies, including those born to mothers with ITP
- It involves a healthcare professional pricking your baby's heel with a tiny needle and collecting drops of blood onto a card to be tested
- It is usually done when a baby is 5 days old, therefore even if your baby was born with a low platelet count, it is likely to have normalised by this age
- Pressure is applied with gauze after the test to prevent any bleeding or bruising
- If you have any concerns, your midwife can discuss with the Haematology team



## Long-term effects

- Your baby's growth and development should not be affected by your having ITP, and most babies will respond to treatment and have no long-term effects
- It is very unlikely that your child will develop ITP in the future
- ITP is not generally considered a genetic condition and is unlikely to be passed on to your baby. However, autoimmune diseases often run in families and a variety may be seen later in life. ITP in more than one family member is very unusual.

## Will I get ITP in future pregnancies?

If you developed ITP when you were pregnant or your existing ITP worsened during pregnancy, we will

monitor you in future pregnancies. It is important that you tell your GP and/or haematologist (specialist blood doctor) if you are thinking of becoming pregnant again so they can discuss this with you.

If your first baby had a normal platelet count, it is likely that future babies will also have normal platelet counts. In this situation, fewer special precautions may be needed during delivery. However, each pregnancy is different and will be assessed individually. For the pregnancy when the baby has a low count there is always a risk in subsequent pregnancies and special care will be taken to monitor any risk.

If you have had your spleen removed (splenectomy), your platelet count may be normal, but the antibodies that can affect your baby may still be present and can cross the placenta.

## Vitamin K

- All babies in the UK are offered Vitamin K. This is given to prevent a serious bleeding condition that can develop as a result of low vitamin K
- If platelets are above 50, vitamin K can safely be given by injection
- If platelets are lower than 50, Vitamin K can be given by mouth (oral drops). This requires multiple doses, which are given over a few weeks. It is important not to miss any doses

## Breastfeeding

- Is usually safe with ITP and first-line treatments (prednisolone, IVIg) are compatible with breastfeeding
- Your team will discuss this with you in case you are on medicines that may affect this
- Rarely, antibodies may be present in breast milk and can affect platelets. It is possible that breast feeding can prolong the low platelet count in an affected baby but the benefits of breast feeding normally outweigh this tiny risk.

Breastfeeding is usually safe with ITP and first-line treatments.



A pregnant woman with long brown hair, wearing a white tank top and a beige cardigan, is standing in a library. She is reaching up with her right hand to touch a book on a wooden shelf. The shelves are filled with books, and the background shows more bookshelves and a window with a decorative pattern. The lighting is warm and natural.

**PART 5: Useful  
Resources**



## Patient information available from the ITP Support Association and the UK ITP Forum

### About the ITP Support Association

The ITP Support Association is a UK registered charity which aims to promote the general welfare of patients, and the families of patients with immune thrombocytopenia. Our patient information resources are freely available for ITP patients, their families and carers, as well as medical professionals and researchers, and provides advice and literature on how best to deal with the condition, helping people better understand ITP.

For more information visit

[www.itpsupport.org.uk](http://www.itpsupport.org.uk)

The ITP Support Association  
The Platelet Mission  
Kimbolton Road  
Bolnhurst, Bedfordshire MK44 2EL



### About the UK ITP Forum

The UK ITP Forum is a working group of health care professionals with a special interest in the care of patients with ITP. The objectives and aims of the forum are:

- To improve care and outcomes for patients with ITP in the UK
- To provide a forum for the interaction of UK healthcare professionals with an interest in ITP
- To develop a network of specialist centres able to provide high quality care and tertiary review
- To advance the education of health care professionals and the general public in all aspects of the disease.
- To promote best practice and raise awareness of developments in translational research
- To encourage collaborative research and trial recruitment into ITP studies

For more information visit:

[www.ukitpforum.org](http://www.ukitpforum.org)

### Further Information and Patient Resources

The resources below can all be found on [www.itpsupport.org.uk](http://www.itpsupport.org.uk) by clicking on the **Patient Resources** menu tab.

- UK Adult ITP Registry
- Current research projects/Clinical Trials
- Making the Right Choices in ITP Management and Care. A shared decision-making tool kit for patients
- ITP in Children
- ITP in Teenagers and Adolescents
- ITP and Me

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