Decision-making guide following a diagnosis of Placenta Accreta Spectrum

Decision to be made: Anaesthesia for the birth of your baby

This information is for women who are having a planned caesarean birth for Placenta Accreta Spectrum. The following paragraphs will provide you with evidence-based information about anaesthesia for the birth of your baby. A plan for the birth is made for each woman on a case-by-case basis. An anaesthesiologist will be available throughout your pregnancy, and will meet you at the pre-assessment clinic to discuss and develop a plan that will give you and your baby the safest birth possible.

What is placenta accreta spectrum?

Placenta accreta spectrum is a complication of pregnancy where the placenta becomes abnormally attached to the muscle of the womb (uterus). In a normal pregnancy, the placenta will separate from the womb after the birth of the baby. In placenta accreta spectrum, the placenta remains deeply attached to the womb. This can result in serious complications for the mother, most commonly from heavy bleeding. The condition can be diagnosed during pregnancy using ultrasound, and sometimes an MRI scan. Women with placenta accreta spectrum will usually give birth to their baby by a planned caesarean birth. Some women will need to have a hysterectomy (removal of the womb) at the time of the birth. Often the birth is a long and major surgery. Therefore, it is important that women are informed of the options for anaesthesia for the birth.

What happens on the day of my planned caesarean birth?

Before the operating room:

- A caesarean birth for women with placenta accreta spectrum can be a long and complex surgery.
- It may be helpful to think of the procedure in two parts – "the birth" and "the surgery".
- The first part, the birth, is from the start of your caesarean birth until your baby is born, which may take up to an hour. The second part, the surgery, is after your baby is born and the surgical team will take time to perform rest of the surgery. This may take up to 1 to 2 hours, or sometimes longer. The time the second part of the operation takes will vary and depends on many factors such as if a hysterectomy is planned (removal of the womb or uterus) or if any complications occur.
- Caring for women with placenta accreta spectrum involves a large team of doctors, nurses and midwives so there will be many people in the room during this time.
- On the day of the planned birth, you should not eat from midnight and stop drinking clear fluids (water) 2 hours before your anaesthetic. This is to make sure your stomach is empty. If you have food or drink in your stomach when you have a general anaesthetic, there is a small risk of it coming back up while you are asleep and going into your lungs (aspiration).
- You and your support partner will wait outside the operating theatre together while some checks are done by the staff. These include final checks such as your name, date of birth and if you have any allergies.

Inside the operating room:

- When you are going into the operating theatre, your partner will be asked to wait outside. If you are having a general anaesthetic from the start of the surgery, your partner will not be allowed to come into the operating theatre with you.
- Inside the operating theatre, you will be connected to a number of monitors.
- These will check your blood pressure, heart rate and oxygen levels.
- A midwife will listen to the babies heartbeat.
- An intravenous line (IV line) will be inserted into one of your veins.
- In some cases, an arterial line is inserted into an artery in your wrist. An arterial line is a thin, flexible plastic tube which can be used to take blood and measure your blood pressure throughout the surgery.
- In some cases, interventional radiology doctors will be in attendance, who will insert small balloons into the blood vessels which supply the womb to reduce bleeding.
- This preparation can take between 1-2 hours. If you are planning to be awake for the surgery, your partner will be allowed into the operating theatre once these preparations are finished.

What type of anaesthesia is available for the caesarean birth?

- There is no "one size fits all" or standard anaesthesia for women with placenta accreta spectrum.
- The safest and best anaesthesia for each woman will depend on many different things, such as safety, the woman's preferences, previous birth experiences and whether a hysterectomy (removal of the womb) is likely. There are three main types of anaesthesia, these are:

1. Regional anaesthesia

2. Regional anaesthesia and general anaesthesia

3. General anaesthesia

1 Regional anaesthesia

- Regional anaesthesia is a form of anaesthesia where you are fully awake and medication is given into your lower back which numbs the nerves which supply the abdomen, buttocks and legs. There are two main types of regional anaesthesia. These are a spinal anaesthetic or an epidural, or a combination of a spinal and an epidural (called a combined spinal-epidural or CSE).
  - **Spinal anaesthetic:** a very fine needle is inserted into your lower back and local anaesthetic is injected into the fluid around your spine. The needle is then removed. This gives you effective pain relief for surgery which will last for up to six hours.
  - **Epidural:** a small plastic tube called an epidural catheter is inserted into your lower back. The catheter is used to inject local anaesthetic which numbs the nerves near your spine. The benefit of an epidural is that the catheter will stay in your lower back during and after the surgery. This means the anaesthetic team can use the catheter to give extra pain relief as needed.
  - A **combination of a spinal and epidural (CSE)** is often used for the birth in women with placenta accreta spectrum. This is because the spinal anaesthetic, which is given as a once-off injection in your back, begins to work much faster than an epidural, but wears off after 6 hours. Once the spinal medication begins to wear off, the epidural catheter which stays in your back can be topped up to give you pain relief for hours or days after the birth. Therefore, a CSE begins to work faster and lasts longer.

2 Regional anaesthesia followed by general anaesthesia

- Instead of being awake for both parts of the procedure, some women will have regional anaesthesia for the first part until the birth of their baby.
- The anaesthetic team can insert an epidural catheter into your back before you go asleep, which can be used for pain relief after birth.
- Once your baby is born, you will be given a general anaesthetic so you are asleep for the rest of the surgery.
- Your partner will be with you while you are awake and for the birth of your baby, and will then be asked to leave once you are going asleep.

3 General anaesthesia

- General anaesthesia means you are fully asleep for the entire birth and surgery.
- A breathing tube is placed into your windpipe when asleep to support your breathing and to reduce the risk of material from your stomach entering your lungs (aspiration).
- You will be asleep from before the surgery begins and you will wake up at the end of the surgery. Your partner will not come into the operating theatre with you, and you will not be awake for the birth of your baby. The anaesthetic team can insert an epidural catheter into your back before you go asleep, which can be used for pain relief after the birth.
- General anaesthesia can also be used in the event that a combined spinal-epidural anaesthesia technique is not possible, for example if there are anatomical issues (such as a history of surgery to your spine), due to disorders of blood clotting or bleeding, or when an emergency caesarean birth is required and there is not enough time to do a regional anaesthetic.

Understanding risk: complications of anaesthesia

General anaesthesia

Regional anaesthesia

Very common side effect (1 in 10 people)

- Need for more pain relief after the surgery, such as opioid medications
- Feeling sick or vomiting after surgery
- Sore throat
- Dizziness
- Dizziness
- Itching
- Drop in blood pressure (can be treated with medication)
- Shivering
- Risk of inadequate pain relief during the operation requiring extra pain medications

Uncommon side effect (1 in 100 - 10,000 people)

- Chest Infection
- Blood clot
- Damage to your teeth, lips, or tongue
- Slow breathing after delivery
- An existing medical condition getting worse
- Awareness (becoming conscious during your operation)
- Headache: often managed with pain medication, but may need another procedure called a blood patch for treatment
- Inadequate anaesthesia, which may mean repeating the regional anaesthesia or having a general anaesthetic

Rare or very rare side effects (1 in 10,000 to 100,000 people)

- Serious allergy to medications (anaphylaxis)
- Nerve damage
- Nerve damage (in most cases this damage is temporary)
- Serious allergy to medications (anaphylaxis)
- Risk of accidental unconsciousness

What other factors affect the type of anaesthetic for the birth?

- In some cases, your healthcare team will advise that one of the above options is the safest and best option for you and will recommend this option.
- They will take into consideration your preferences but also the plan for the birth, for example whether you are likely to have a hysterectomy (removal of the womb). They will discuss the reason for their recommendation with you.
- You may need an emergency caesarean birth and the situation will determine the safest anaesthetic approach.
- The priority is to make sure the approach used best fits with your wishes and is safe in the circumstances.

Helping to decide

Some of the advantages and disadvantages for each option are described below. You can add others to the list which you consider an advantage or disadvantage. Take into consideration the risks of anaesthesia from the table above too. For each option, consider how much this risk or benefit matters to you on a scale of 1-5 (1= not at all, 5=very important).

1 Regional anaesthesia

Benefits/Advantages

	How much this matters to you (1-5)
1. You will be awake for the birth of your baby.	
2. Your chosen support partner will be able to be with you for the birth of your baby and the rest of the surgery.	
3. Your baby will not receive any of the medication given for a general anaesthesia	
4. You will avoid the risks of having a general anaesthetic such as:	
• There is a lower risk of contents from your stomach entering your lungs (aspiration).	
• There is a lower risk of bleeding (haemorrhage).	
• You are less likely to develop a blood clot after the birth (deep vein thrombosis).	
• You are less likely to have damage to teeth associated with placing a breathing tube (endotracheal tube).	

Risks/Disadvantages

1. You will feel touch from the surgical team (you should not feel pain). Some women may feel pressure or find this sensation strange, for others this can be very uncomfortable. You may need extra pain relief medication, or rarely, need to have a general anaesthetic if you are experiencing pain.	
2. Some women may find it difficult to be awake for the surgery, which can be long and complex.	
3. Should a medical emergency such as bleeding occur during the birth, the medical team may decide it is safer for you to have a general anaesthetic at this point.	
4. It will take some time for the sensation returning to your legs, which in turn, delays the time it takes to walk without help. The time it takes for the feeling to return to normal depends on whether you have had a spinal or epidural. (The anaesthesia team will discuss this with you).	
5. Some women report a severe headache (< 1% or less than 1 in 100 women) after regional anaesthesia. More serious complications such as nerve damage are extremely rare.	

2 Regional anaesthesia followed by general anaesthesia

Benefits/Advantages

How much this matters to you (1-5)

1. You will be awake for the birth of your baby. ☐
2. Your chosen support partner will be able to be with you in the operating room until after the birth of your baby (They will be asked to leave once the baby is born and you are going to sleep). ☐
3. Once the baby is born, you will be asleep for the remainder of the surgery. Some women prefer this as they want to be awake for the birth of their baby, but then prefer to be asleep for the second part of the surgery. ☐
4. Your baby will not receive any of the medication you will be given for the general anaesthesia, as this will only be given to you once your baby is born. ☐

Risks/Disadvantages

1. Needing a general anaesthesic in the middle of the operation can be more challenging than at the beginning of the operation. This is especially the case where placing the breathing tube is thought to be difficult, which your anaesthesiologist will discuss with you in more detail ☐
2. Complications of regional anaesthesia as described for option 1. ☐
3. Complications of general anaesthesia as described for option 3. ☐

3 General anaesthesia

Benefits/Advantages

How much this matters to you (1-5)

1. If you feel very anxious or worried and would rather not be awake, general anaesthesia allows you to be asleep for the duration of your operation. ☐
2. You will not feel any discomfort during the birth. ☐

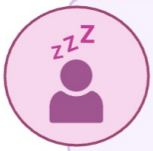
Risks/Disadvantages

1. You will not be awake for the birth of your baby. ☐
2. Your support partner will not be able to be with you in the operating room. ☐
3. Your baby will receive small amounts of the medication you are being given as part of the general anaesthetic through the placenta, and after birth may require some extra help to start breathing. The paediatric team (baby doctors) will be in attendance for this reason. A brief exposure to general anaesthesia is unlikely to have any long term effects for your baby. ☐
4. In many cases, your anaesthesiologist will recommend to have an epidural inserted before the general anaesthetic so that this can be used for pain relief after the operation. This means you will still be at risk for the complications of regional anaesthesia such as headache. ☐
5. Complications of general anaesthesia such as: ☐
    - Risk of contents from your stomach entering your lungs (aspiration).
    - More likely to have heavy bleeding (haemorrhage).
    - Higher risk of developing a blood clot in the leg or the lung.
    - Damage to your teeth associated with placing a breathing tube (endotracheal tube).
    - Placing a breathing tube is more difficult in pregnant women compared to non-pregnant women, and may result in low oxygen levels.

Support partner

Regional anaesthesia: your support partner can come into the operating room with you, and stay for the duration of the surgery.

Regional anaesthesia followed by general anaesthesia: your support partner will be with you while you are awake, and will be there for the birth of the baby. Once you are going to sleep, they will be asked to leave. They will be allowed to stay with the baby, or, if your baby is being admitted to the neonatal unit, go with the baby to the neonatal unit.



General anaesthesia: your support partner will not be in the operating room with you at any time. As for option 2, they can spend time with the baby and go to the neonatal unit.

After reading the information, which option do you prefer?

Regional anaesthesia

Regional anaesthesia and general anaesthesia

General anaesthesia

I am not sure

Who can help me make the decision?

Your healthcare team

- Your healthcare team will have many different people who are looking after you and can support you in making this decision
- Which option do they advise is best for you?
- Why is this option preferred over others?
- Have you reached a decision together that you are all agreed is the best way forward?

Support person such as partner, family friends

- Which option do they feel is right for you?
- Your support partner or family/friends can assist you in making that decision.

Patient advocacy and support group

- Some people will find it helpful to speak to a patient advocate or someone who has experienced placenta accreta spectrum.
- Would you find this helpful in making your decision?
- Available groups include:
  - Placenta Accreta Ireland (www.paireland.ie)
  - National Accreta Foundation (www.accretafoundation.org)

What role do you prefer to take when coming to a decision?

- I want to decide after considering the information
- I would like to share this decision with…..(my support partner, my health care team)
- I would like someone else to decide…(such as my healthcare team)

Do you feel ready to make the decision?

		Yes	No
Knowledge	Do you have enough information to weigh up the benefits and risks of each option and reach a decision on your preferred approach?	☐	☐
Values	Are you comfortable with which benefits and risks are most important to you?	☐	☐
Support	Do you have enough support to help you in making this decision?	☐	☐

If you answered "no" to one or more of the questions above, consider what might help to feel more certain of your decision using the guide below

I am unsure of...

	Things you might find helpful
Knowledge...I don't have enough information to make this decision	Find out more about the risks and benefits of each option by: • Speaking with your healthcare team • Reading the risks and benefits in this decision aid • Looking at a website/video for information/listening to a podcast • Speaking to a patient advocate
Values...I am not sure what is most important to me	Look at the table of risks and benefits for each option: • Which points did you rate as very important to you? • Which points were not as important to you?
Support...I don't have enough support to make this decision	If you feel you do not have enough support, consider who you would like to support you: • Your healthcare team? A friend or family member? • Why do you feel this? • How can they help?

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Declaration
The authors have no conflict of interest to declare and do not gain from the decisions made by patients using the decision aid

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