PRE AND POST OPERATIVE CARE

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- **A 34-year-old pregnant woman, gravida 2 para 1, presents at 39 weeks gestation for her final prenatal visit. Her first delivery was via emergency cesarean section due to fetal distress and failure to progress during labor. During this pregnancy, she has been closely monitored for gestational diabetes, which has been well-controlled with diet and lifestyle modifications. Given her previous cesarean section, the obstetrician has recommended a planned repeat cesarean delivery for this pregnancy.**
- **Mention pre and post operative care for C-section.**

Learning Objectives

1. Cesarian section overview
2. Pre op care
3. Pre op assessment
4. Pre op preparation
5. Post op care
6. Complications

1. Caesaren section overview

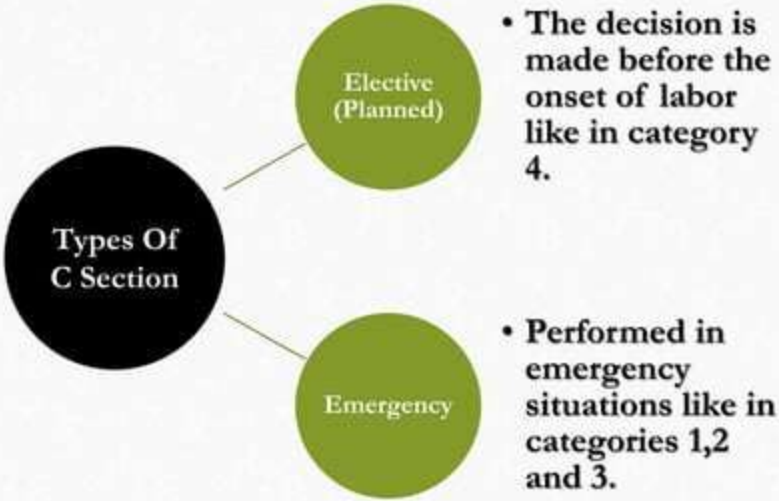
What is C section?

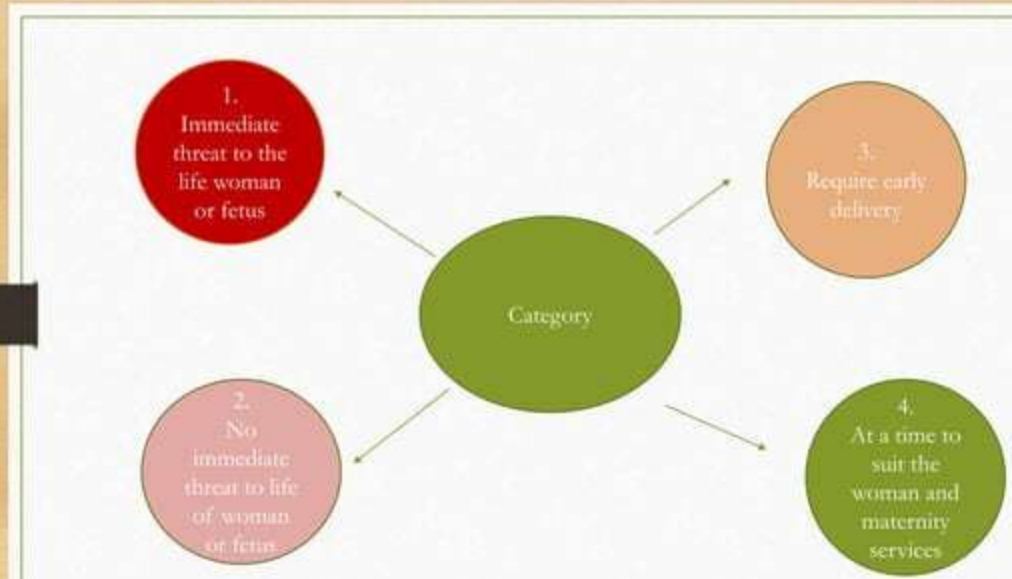
A C-section — also known as a cesarean delivery or cesarean section — is the delivery of a baby through a surgical incision in the abdomen and uterus.

Why it is called Caesaren Section?

Roman law under Caesar decreed that all women who were so fated by childbirth must be cut open; hence, cesarean. Other possible Latin origins include the verb "caedare," meaning to cut, and the term "caesones" that was applied to infants born by postmortem operations.

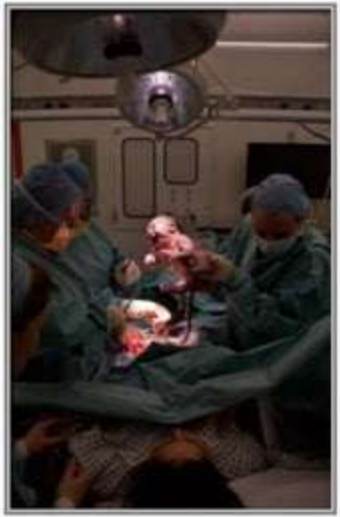
Source: National Institute of Health (NIH)


Types Of C Section
Elective (Planned)
Emergency
• The decision is made before the onset of labor like in category 4.
• Performed in emergency situations like in categories 1,2 and 3.


1.
Immediate threat to the life woman or fetus
3.
Require early delivery
Category
2.
No immediate threat to life of woman or fetus
4.
At a time to suit the woman and maternity services

Indications For C Section

1. Previous caesarean section.
2. Malpresentation (mainly breech).
3. Failure to progress in labor.
4. Suspected fetal compromise in labor.
5. Other indications, such as multiple pregnancy, placental abruption, placenta previa, fetal dis- ease and maternal disease, are less common.



2. Pre operative care

- Preoperative care is the preparation and management of a patient prior to surgery.
- It includes both physical and psychological preparation.

Preoperative care of the patient begins as soon as the surgeon makes a diagnosis and decides that as operation is necessary for the patient

The Royal College of Obstetricians and Gynaecologists (RCOG) guidance on consent advises that explanation of the procedure should include:

Pre Operative Assessment

- Pre- Operative assessment should be performed by **THE ANESTHETIST** and **SURGICAL TEAM**
  It has following components.

  1. Taking detailed history
  2. Clinical examination.
  3. Routine and target oriented investigations.
  - CBC, RFTs, LFTs, Electrolytes and creatinine, Blood group, Blood glucose and HbA1c, coagulation screen(PT, bleeding time)
  4. If any abnormality is found, it should be treated to its optimal level

4. Pre Operative Preparation

- **A. Specific Pre operative problems.**
  If a patient is suffering from any disease other than surgical issue, it should be treated to a level where it does not complicate surgery.
  The benefits of the surgery should outweigh the risk of surgery and risks of anesthesia.
  Specific medical problems encountered during pre operative assessments includes:

1. Cardiovascular diseases

MI, Angina, CHF, Hypotension, Valvular heart disease, Pacemakers (Monopolar diathermy should be avoided during surgery in patients with pacemakers).

2. Anemia

- Iron and vitamins supplements.
- A patient undergoing major surgery with Hb level of less than 8g/dl should be considered for transfusion.

3. Respiratory diseases

4. Asthma

5. Smoking

6. Infections

7. Coagulation disorders

- **Thrombophilia**

(Patients with previous history of thrombosis or those at risk should be identified , they should be provided with thromboprophylaxis).

- **Anticoagulation therapy.**

Those who are on warfarin therapy , it should be stopped 5 days before surgery and infusion of un-fractionated heparin should be started once INR is <1.5 and APPT should be maintained 1.5 times of normal and this infusion should also be stopped 2 hours before surgery.

- **Hemophilia A. Factor VIII deficiency B. Factor IX deficiency**

8. Obstructive Jaundice:

- Are at a high risk for surgery.

9. Metabolic disorders

like DM, Thyrotoxicosis, Hypothyroidism, Dehydration, Obesity.

Pre operative Fasting (NBM… Nill By Mouth):

6-8 hours prior to surgery

Is necessary to reduce the aspiration of gastric contents at the induction of anesthesia, during surgery or in the immediate period after surgery.

B. Bladder should be emptied before the procedure commences

C. Anesthesia

(Most scheduled caesarean sections are performed under spinal anesthesia)

General anesthesia is occasionally required where regional anesthesia is contraindicated or ineffective or where general anesthesia is preferred due to urgency.

D. The anesthetic block is confirmed and the woman's abdomen (part preparation) and hair clipping (shaving is not recommended)
- Abdomen and perineal painting
(Chlorhexidene or povidone-iodine solutions)
E. Prophylactic antibiotics should be administered intravenously prior to the surgical incision.
Cefazoline IV 1-2gm
(Beta lactam antibiotic – Cephalosporin/Penicillin)
if allergy – Clindamycin+gentamycin (Aminoglycosides)
F. Position of the patient:
Dorsal position, 15 degree left lateral tilt

G. Instruments

Check all instruments, sponge and needle count before and after surgery for safety.

H. IV line

Keep IV line patent to infuse fluids and transfuse blood products if required

5. Post operative care

- General care of the patient with careful monitoring and assessment at regular intervals, for early detection of complications, timely intervention and assuring the recovery of the patient is called post operative care.

Objectives

1. To make general assessment of patient immediately after surgery.
2. To provide adequate pain relief.
3. To prevent complications by monitoring at regular intervals.
4. To manage complications at an early stage if they occur.
5. To maintain proper record.

Post-Operative care of a surgical patient can be divided into three phases:

1. Immediate post-operative care (Recovery phase)

Following are the components of care in the recovery room

a. Basic management

It is the close monitoring of the patient. This includes:

- ABC are the main priority
- Relief of pain and anxiety
- The patient's position
- Prophylactic measures against venous stasis by passive leg exercise
- Airway and breathing
- Circulation
- Fluid balance
- Core temperature

2. Care in the ward until discharge from the hospital

The aim is to maintain a stable general condition and detect any complications early.

Care in the ward includes

a. General care includes measures taken in recovery phase.
b. Pain management
c. Fluid balance
d. Medications
e. Nutrition
f. Physiotherapy
g. Wound care
h. Breastfeeding

3. Care After Hospital Discharge

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2. To provide adequate pain relief. To prevent complications by monitoring at regular intervals.

3. To manage complications at an early stage if they occur.4. To maintain proper record.

6. Complications

Intraoperative complications

1) Haemorrhage
2) Caesarean hysterectomy
3) Placenta praevia
4) Organ damage

Post op complications

1) Infection
2) Blood Loss or Hemorrhage
3) Blood Clots
4) Adhesions
5) Wound Complications
6) Urinary or Bowel Issues
7) Anesthesia-related Complications

Hemorrhage Management:

1.Oxytocin infusion

2.Prostaglandins administration

3. Bimanual compression and Conservative surgical procedures such as uterine compression sutures and Caesarean hysterectomy (The most common indication for caesarean hysterectomy is uncontrollable maternal haemorrhage).

Venous Thromboembolism Management:

Adequate hydration, Early mobilization

Administration of prophylactic heparin

Ethics and Counselling

Considering well the principles of ethics while treating the patient.
Principles are **Autonomy, Beneficience, Non-Maleficience and Justice**.
Counsel the patient

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Further Reading

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2. Royal College of Obstetricians and Gynaecologists. Operative Vaginal Delivery. Green-top Guideline No. 26. London: RCOG, 2011.

3. Royal College of Obstetricians and Gynaecologists. Third- and fourth-degree perineal tears, Management. Green-top Guideline No. 29. London: RCOG, 2015.

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THANKS


SOOOOO
ANY QUESTIONS???