

PREVENTION OF PUERPERAL SEPSIS: A BIG CHALLENGE IN HEALTH CARE SYSTEM

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India is the second most populous country of the world and has fast changing socio-political-demographic patterns that have been drawing global attention in recent years. Worldwide, an estimated five lakh woman die as a result of pregnancy each year. Approximately one quarter of all pregnancy and delivery related maternal deaths worldwide, occur in India. This tragic picture has only gradually become clearer largely as a result of a growing number of good community surveys conducted since the mid-1970s which drew attention to the unexpectedly high rates of maternal mortality and serious morbidity. Pregnancy is a vulnerability that puts a woman at risk of dying. Developing countries share 99% of the global maternal deaths. Some of the important points related to puerperal sepsis are: —

1. Puerperal sepsis is the third or fourth leading cause of maternal deaths worldwide with maternal mortality due to infections being as high as 15% with maternal morbidity being 8.1%.
2. Eighty percent of maternal deaths resulting from pregnancy complications are brought about by preventable causes as they depend strongly on quality of care provided.
3. Sepsis is among the preventable causes of maternal death. Puerperal sepsis causes deaths continuously in developing countries mainly because of inadequate access to skilled care during and after childbirth.
4. Women may have inadequate access to professional health care during labour and delivery provided in the home or a hospital setting with attendants who do not meet quality standard skills. All this can increase the risk of infections.
5. Women who get pregnant at an early age are inexperienced mothers and may land at the hands of traditional birth attendants who never practise aseptic measures like hand washing and use antiseptic materials for clean delivery service, clean cord cutting, perineal hygiene and provide antibiotic coverage after delivery.
6. One strategy to manage the occurrence of puerperal sepsis is by understanding how the risk factors influence its occurrence and establishing the possible associations that might exist between them. Establishing the association between the risk factors will help in formulating better interventions that can be used to prevent its occurrence and management of puerperal sepsis cases, as opposed to relying merely on identifying the risk factors.
7. Existing researches have been focussing on the prevalence and risk factors associated with puerperal sepsis. There is need to examine the occurrence of puerperal sepsis based on the socio demographic characteristics and obstetric characteristics of pregnancy and delivery.
8. Awareness creation on Puerperal Sepsis and educating the postnatal mothers regarding the prevention of puerperal infections will increase the areas of learning domain to be a healthy mother and will help mothers to give birth to a healthy child.
9. The entire community needs to be trained on hygiene practices and its consequences. Community health workers are the ambassadors of such knowledge and practice.
10. Adequate funding of health facilities and provision of proper transportation means will ensure that this objective is achieved. Such programmes act as preventive measures against puerperal sepsis, thus reducing maternal morbidity and mortalities in the area. There is need for awareness creation on Puerperal Sepsis followed by education of the community on hygiene especially of post-partum mothers so as to prevent cases of infections.

11. Community health workers and Health care staff should be holding frequent educational camps. The provincial Ministry of health and the provincial financial authorities should consider funding the hospitals so as to create an enabling environment for the facility to carry out awareness creation on Puerperal sepsis among their patients.
12. There is a need to enlighten the community on the need for ANC attendance, skilled attendant at delivery and hospital delivery under aseptic conditions and also maintaining high hygiene after delivery. Women need to be encouraged more to utilise ANC services during which hygiene and nutrition lessons are rolled out. Awareness creation on Puerperal Sepsis needs to be integrated and such integrated service will help to spread the knowledge to the community.

These services should be initiated in a primary care setting or in centres with advanced facilities. The objective of management in puerperal sepsis is to make an early diagnosis, treat, prevent complications, and consequently to improve quality of life. A puerperal infection is a more general term than puerperal sepsis and includes not only infections due to puerperal sepsis, but also all extra-genital infections and incidental infections.

PREVENTION

Antenatal period: Antenatal care helps to reduce puerperal infections by: —

- Diagnosis and treatment of urinary tract infections.
- Diagnosis and treatment of anaemia and malnutrition.
- Diagnosis and treatment of diabetes mellitus.
- Assessment of risk factors for feto-pelvic disproportion.
- Diagnosis and treatment of pre-existing sexually transmitted infections e.g. Gonorrhoea, Chlamydia etc.
- Diagnosis and treatment of other vaginal infections.
- Identification and appropriate management of prolonged rupture of membranes (>12hours)
- Referral for specialist care for those at risk : with history of previous prolonged labour and repeated abortions

Intrapartum period:

- Strict adherence to established antiseptics and sterilisation procedures such as cleaning hands immediately prior to delivery, cleaning perineum, cleaning delivery surface, using sterilised surgical instruments, clean cord tie and clean cord care.
- Use of a pre-packed sterilised delivery kits.
- Institutionalising all deliveries.
- Restricting vaginal examinations to the minimum in cases of premature and prolonged rupture of membranes (PPROM).
- Prevention of prolonged labour by maintaining the partogram for all patients who are in labour and intervention at the action line and early maternal transfer when indicated.
- Strict adherence to sterile procedures at every vaginal examination in women in labour.
- Strict adherence to sterile procedures especially when performing an emergency Caesarean Section and/or any other operative procedures such as removal of retained placenta or retained products of conception.
- Ensuring sterility in the operating room.
- Ensuring sterility in the labour room.
- Encourage voiding urine during labour thereby avoiding unnecessary catheterisation.
- Avoid unnecessary episiotomy.
- Use soap, water and effective antiseptics (e.g. chlorhexidine, surgical spirit to clean hands; wear gloves on both hands for vaginal examination, delivery and handling of infants.

- Use correct methods for sterilisation (e.g. 0.5% chlorine solution), proper disinfection techniques (e.g. boiling for 20 minutes) and sterilisation (dry, heat or steam) of instruments and equipment.
- Ensuring sterility in the labour room.
- Maintain sufficient supply of antibiotics. Consider prophylactic use of antibiotics for invasive procedures, manual removal of placentae, internal version and third degree perineal tears.

The skills specific to preventing and managing puerperal sepsis include: identification of risk factors; identification of symptoms and signs; taking a midstream specimen of urine; taking a high vaginal swab; and maintaining vulval hygiene. The general skills in this module include: taking and recording observations; taking blood samples for analysis; setting up and monitoring an intravenous infusion; maintaining fluid balance; universal precautions for prevention of infection; administering necessary drugs; preventing thromboembolic disorder; and maintaining records.

COMPLICATIONS

Complications are rare. But they can develop if the infection is not diagnosed and treated quickly. Possible complications include:

- **Abscesses** or pockets of pus
- **Peritonitis** or an inflammation of the abdominal lining
- **Pelvic thrombophlebitis** or blood clots in the pelvic veins
- **Pulmonary embolism**, a condition in which a blood clot blocks an artery in the lungs.
- **Sepsis or septic shock**, a condition in which bacteria get into the bloodstream and cause dangerous inflammation

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