Implementing the Sepsis Six Care Bundle within the Maternity Unit in NHS Fife – Getting it right in the Golden Hour

Summary
This work was undertaken in the Maternity Unit in NHS Fife, Scotland and aimed to implement a reliable process for the early recognition and management of sepsis within one hour of presumed diagnosis. The target population included all women presenting in pregnancy, intrapartum and puerperium. The strategies used included delivery of education, practice based training and implementation of the Sepsis Six Care Bundle.

Compliance with the implementation of the Sepsis Six Bundle has risen from 11% at the onset of the project in January 2013 to 100% sustained for the last four months. There is a high level of awareness of sepsis and the need for prompt treatment.

Problem
The most recent triennial report (2006-2008) of maternal deaths (CMACE) found that deaths from sepsis had risen rather than declined in recent time. It is now the leading cause of death.

The report identified problems with lack of recognition of the signs of sepsis and lack of guidance for management. It recommends that all healthcare professionals who care for pregnant and recently delivered women should have regular training and should be aware of the signs and symptoms of sepsis and the need for urgent treatment.

Strategy for Change Using an Improvement Methodology Approach
The project started in January 2013 following the launch of the Mothers’ and Children’s Quality Improvement Collaborative (MCQIC). It aims to improve outcomes and reduce inequalities in outcomes by providing a safe, high-quality and reliable care for all women, babies and families across maternity care settings in Scotland.

The collaborative provided the platform to introduce new clinically led change concepts. The implementation of the Sepsis Six Care Bundle was identified as one of key strategies for achieving this aim.

Actions Taken
The Model for Improvement was adopted to engage the multidisciplinary team in testing and implementing the following strategies:

- Adapting the NHS Fife Sepsis Screening Tool and Sepsis Six Care Bundle for Maternity
- Implementing all elements of the Sepsis Six Care Bundle
- Awareness raising and education which included scenario based emergency drills and taking blood cultures
- Setting up a Sepsis Tray – making it easy to do the right thing
- Providing feedback, displaying data using annotated run charts and women’s stories
- Development of antimicrobial guidance for maternity
- Raising awareness with women at risk of developing sepsis of the early signs and symptoms

Sepsis Six Care Bundle

Measurement of Improvement
Compliance with individual elements of the bundle and overall compliance was measured with targets set as:

- 95% overall compliance with the Sepsis Six Bundle within one hour
- 100% compliance for administration of antibiotics within one hour
- The number of women with sepsis escalated to higher level of care.

Effects of Change
Over the past four months overall compliance with the bundle has been maintained at 100% and all women received antibiotics within one hour. One woman was transferred to a higher level of care promptly after admission with severe sepsis. There is a high level of awareness amongst the clinical teams of sepsis and the need for prompt treatment. The screening tool and bundle have been well received within the clinical teams and provides a consistent approach for managing women with sepsis.

Compliance with the Sepsis Bundle

Conclusion
There is a high level of awareness of sepsis and the need for prompt treatment.

The screening tool and bundle have been well received within the clinical team and provide a consistent approach for the early recognition and management of women with sepsis.

Message for Others

- Raise awareness and provide education
- Empower the midwife as first point of contact to recognise sepsis and initiate treatment
- Use data to track improvements and provide feedback to all staff
- Use case stories to engage the teams
- Badge Sepsis as an Obstetric Emergency

Sepsis Scrennign Tool