PURPOSE

A. Trauma Obstetric (OB) Patient: To define the management of the pregnant patient, ≥ 20 weeks gestation and who has sustained blunt or penetrating injury to the head, neck, chest, abdomen, and pelvis or has a major long bone extremity fracture.

SCOPE

A. Inclusion:
    1. Obstetric patients: ≥ 20 weeks gestation in the ED as determined by:
        1. Patient history/medical record review
        2. Ultrasound
        3. Physical Examination

B. Exclusion:

    1. Non pregnant patients
    2. Obstetric patients less than 20 weeks gestation in the ED

DEFINITIONS

A. *AUCC*: Adult Urgent Care Center
B. *DEM*: Department of Emergency Medicine
C. *PEDUC*: Pediatric Emergency Department and Urgent Care
D. *ED:* Emergency Department
E. *EM:* Emergency Medicine
F. *FAST:* Focused Abdominal Sonography for Trauma
G. *EFM*: Electronic Fetal Monitoring
H. *OB*: Obstetrics
I. *OBSR*: Obstetrics Screening Room
J. *L&D*: Labor & Delivery
K. *RN*: Registered Nurse
L. *S&S*: Signs and Symptoms
M. *PEDS*: Pediatrics
N. *NICU*: Neonatal Intensive Care Unit
O. *DKA*: Diabetic Ketoacidosis
P. *ID*: Identification

GUIDELINE

A. For the purpose of this document, the term "ED" will include the ED, the PEDUC and the AUCC.
B. Trauma Patients (≥20 weeks gestation by best estimate):
    1. Minor Trauma
        a. Inclusion Criteria: Minor trauma typically includes falls without significant trauma to the abdomen, low speed motor vehicle collisions without airbag deployment or other traumatic injuries characterized by no more than minor bruising, lacerations, or contusions. In many cases these are situations where the patient would not seek care were she not pregnant
        b. Exclusion Criteria
            i. Trauma Alerts and Activation
            ii. Any trauma provider expressing concern for more serious trauma

c. Upon completion of the EM trauma evaluation if the patient is deemed stable for discharge from the ED, the patient will be transferred to the OB Screening Room (OBSR) for obstetrical evaluation. The EM provider will call the OBSR Midwife at x 29137 and provide report.

2. Major Trauma $\geq$ 20 weeks
    a. Inclusion Criteria
        i. 20 weeks or greater gestational age by best estimate
        ii. Trauma Alert
        iii. Trauma Activation
        iv. Non-alert or activation patients that are found to have any of the following
            a. Pelvic Fracture
            b. Long Bone Fracture
            c. Multiple Rib Fractures
            d. Spine Fracture
            e. Suspected or confirmed intrathoracic or intraabdominal injury (e.g. positive FAST)
            f. Intracranial hemorrhage
            g. EM physician or OB physician discretion
    b. All pregnant trauma patients, either alert or activation, and regardless of maternal age, are triaged initially to the adult ED.
    c. The ED providers will perform the standard trauma notification (using standard alert and activation criteria) of the trauma team on call when necessary and/or consult other services as appropriate.
        i. Upon notification of the ED by pre-hospital providers or identification of pregnant major trauma patients in the ED, the EM providers will notify the OB chief and OB Attending by OB-Trauma ZipIt
            a. The on-call obstetrics attending will be notified directly by the ED in all cases of trauma activations involving pregnant trauma patients. The on-call obstetrics attending must be present in the ED within 15 minutes of notification of trauma team activation.
        ii. The OB Chief will present to the emergency department to evaluate the patient, with bedside ultrasound, pelvic exam, etc. as indicated and help decide the need for electronic fetal monitoring (EFM)
        iii. If the OB Chief determines that EFM is needed, the L&D Charge RN, or delegate, will be called via Vocera: "Labor Deck Charge Nurse" or at extension 29384, to send an L&D Registered Nurse (RN) to the ED to provide the EFM.
        iv. If delivery is determined to be imminent, the Pediatrics/NICU Delivery Team will be notified via the ZipIT system (occurs at time of original page).
    d. Pediatrics is also notified via ZipIT.
        i. The pediatric resident will present to the ED.
    e. A systematic trauma evaluation of the patient will be performed in the ED by the EM team, the trauma team, and the OB team.
    f. Upon completion of the trauma evaluation
        i. If the patient has been deemed stable by the ED team and the Trauma surgery team, the patient may be admitted to L&D for further fetal monitoring if deemed appropriate by the OB team.
        ii. In patients who have non-obstetrical trauma requiring admission, the patient will be admitted to the Trauma Surgery Service with OB consultation.
    g. Emergent Cesarean Section
        i. STAT Cesarean Section will be performed in the ED via a midline laparotomy incision by OB-GYN in conjunction with Trauma Surgery as determined by the OB-GYN and Trauma Surgeons.
        ii. Emergent OR Cesarean Section will be performed in a stable pregnant female for fetal indications

3. Major Trauma < 20 weeks gestation
    a. Upon completion of the trauma evaluation
        i. If the patient has been deemed stable by the ED team and the Trauma surgery team, the OB team should be notified, and the patient may be admitted for further maternal or fetal evaluation if deemed appropriate by the OB team.
        ii. In patients who have non-obstetrical trauma requiring admission, the patient will be admitted to the Trauma Surgery Service with OB consultation
4. Fetal Monitoring in patients with major trauma
    a. Indicated in all pregnant trauma patients beyond ≥24 weeks gestation
        i. Must be initiated as soon as possible given the patient is hemodynamically stable with no urgent need for operative intervention for either fetal or maternal indications
        ii. Monitor fetal heart rate and uterine contractions for minimum of 4 hours and as long as clinically necessary
    b. Criteria for Discontinuation
        i. Reassuring Fetal Heart Tracing
        ii. Uterine contractions with frequency of less than 1 every ten minutes during the initial four hours of monitoring
        iii. Exclusion of the following maternal findings
            a. Vaginal bleeding
            b. Significant uterine tenderness/irritability
            c. Rupture of amniotic membranes
            d. Non-stable maternal vital signs
            e. Evidence of coagulopathy
        iv. If the above criteria are not met, then continue fetal heart rate monitoring and tocometry for 24-48 hours or Per OB team recommendations.
5. Radiology
    a. Link to “Imaging in Pregnant Patient with Emergent/Urgent Conditions” Guideline

EXTERNAL REFERENCES

Mendez-Figueroa H, Dahlje JD, Vrees RA, Rouse DJ. Trauma In Pregnancy: an updated review. Am J Obstet Gynecol 2013 Jul;209(1):1-10.

American College of Obstetricians and Gynecologists. ACOG educational bulletin: obstetric aspects of trauma management, number 251, September 1998. Int J Gynaecol Obstet. 1999;64:87-94

DHHA RELATED DOCUMENTS

Link to “Imaging in Pregnant Patient with Emergent/Urgent Conditions” Guideline