Service Area: YNHH - Emergency	**YALE NEW HAVEN HEALTH SYSTEM**	
Title: Management of First Trimester Spontaneous Abortion in the Emergency Department		
Date Approved:	**Approved by:** ED Combined Leadership Group	
Date Effective: 10/2016		**Date Reviewed/Revised:**
Distribution: YNHH Emergency Services		**Document Classification: GUIDELINE**
Supersedes:		

PURPOSE
Emergency Department will promote appropriate and efficient management, consultation, admission and follow-up of patients with First Trimester Spontaneous Abortion (SAB).

APPLICABILITY
Emergency Departments within Yale New Haven Hospital

GUIDELINE:

I. The management of patients with SAB can be divided into three Categories:
   A. Noninvasive Management: Patients presenting with a first trimester spontaneous abortion at any stage and non- significant uterine bleeding (i.e., less than one large pad per hour with no continuous bleeding and no hemodynamic abnormality or compromise).
   B. Invasive ED Management: Patients presenting with an incomplete or inevitable first trimester spontaneous abortion and moderate to severe bleeding (i.e., minimum of one large pad per hour for past six hours without hemodynamic compromise).
   C. Invasive Inpatient Management: Patients presenting with a first trimester spontaneous abortion and severe hemorrhage causing significant drop in hematocrit or hemodynamic compromise. These patients need monitoring, aggressive resuscitation and possibly transfusion. Patients with complications including infection, hypertension, diabetes, morbid obesity or previous instrumentation should also be admitted.

II. Noninvasive management
   A. Confirm IUP by previous ultrasound report, ultrasound performed by radiology at the time of the ED visit, or visualization of expelled POC.
   B. Laboratory: CBC, Rh, quantitative HCG, UA, POC to pathology
   C. Vital Signs: Patients with fever (T>100.6) are exempt from this protocol and should be evaluated for infection. Patients with tachycardia, hypotension or orthostasis should be admitted and treated according to guideline section IV below.

D. Exam: Pelvic exam by ED staff (may be performed by community OBGYN if present in ED promptly):
    1. Bleeding should be minimal
    2. Evaluate cervix for dilation and presence of retained POC
    3. Evaluate uterus for excessive tenderness, bogginess or enlargement (>12 week size).
    4. Evaluate abdomen for excessive tenderness
E. Ultrasound: Indicated for abnormal exam findings or suspected complication
F. OBGYN consult: Primary OBGYN will be informed of patient presence in the ED and status in all cases. For Women's Center or unassigned patients this includes the Yale University gynecologist on-call or the Yale on-call attending (YOCA) through the on-call OBGYN resident. The consultant should be offered the opportunity to see the patient in the ED and must arrange follow-up with the patient.
G. Treatment:
    1. Rh immunoglobulin for all Rh negative patients
    2. Treat UTI, STD
    3. Tylenol for pain
    4. IV hydration if indicated for mild dehydration or hypovolemia
H. Disposition and Follow-up:
    1. Home with follow-up within 2 days by OBGYN. Women's Center patients should have their follow-up scheduled in the scheduling system prior to discharge.

III. Invasive ED Management

A. Confirm IUP by previous ultrasound report, ultrasound performed by Ob/Gyn at the time of the ED visit, or visualization of expelled POC.
B. Laboratory: CBC, type and Rh, quantitative HCG, UA, POC to pathology
C. Vital Signs: Patients with fever (T> 100.6) are exempt from this protocol and should be evaluated for infection. Patients with hemodynamic instability or orthostasis accompanied by moderate or severe bleeding should be admitted and considered for treatment in the OR.
D. Exam: Pelvic exam by ED staff (may be performed by community OBGYN if present in ED promptly):
    1. Evaluate bleeding
    2. Evaluate cervix for dilation and presence of retained POC
    3. Evaluate uterus for excessive tenderness, bogginess or enlargement (>12 week size).
    4. Evaluate abdomen for excessive tenderness
E. Ultrasound: Performed at bedside with OBGYN to confirm dates, nonviability and presence of material in uterine cavity.
F. Protocol for management of incomplete SAB in ED utilizing manual vacuum aspirator (MVA)
    1. Patients with US confirmation of nonviable IUP less than 12 weeks with moderate or severe bleeding and cervical dilation >1 cm may be eligible for completion with MVA in the ED.
    2. Exclusions: hemodynamic instability, temp >100.6, WBC count > 12,000; medical co-morbidity such as poorly controlled DM or HBP, morbid obesity. failed elective surgical termination (must be performed in OR),

no recent negative GC/Chlamydia test

3. Assess patient's ability to tolerate exam and obtain consent for procedure under local anesthesia (e.g., paracervical block).
4. An OBGYN attending must be present. If the Gynecology attending or YOCA is anticipated to be unavailable within 1 hour then the back-up on-call gynecology attending must be called in. ED attending and charge nurse must be aware that procedure is taking place.
5. Prophylactic antibiotic may be administered if indicated. Morphine Sulfate 4 mg IV should be administered unless contraindicated.
6. Prep cervix, administer 10cc total 1-2% lidocaine without epinephrine into para-cervical tissue at 3 and 9 o clock position, after aspiration confirms that spinal needle is not intravascular.
7. Activate MVA suction, insert cannula, release suction valve, gently rotate and aspirate tissue.
8. Perform repeat bedside ultrasound by OBGYN to assess completeness.
9. Administer Rhogam if Rh negative.
10. Prescribe analgesics. NSAIDS may be sufficient.
11. Give first dose of methergine 0.2 mg PO and prescribe Methergine 0.2mg q 4 hr x 5 doses or Misoprostol 200 mcg tabs, 2 tabs po x 1 dose. Misoprostol is preferred in patients with hx hypertension, diabetes, or obesity due to reported cases of hypertensive complications with methergine.
12. Instruct patient in pelvic rest x 2 weeks.
13. Follow up appointment at Women's Center in 1-2 weeks days. Appointment made in EPIC system in ED prior to discharge.

IV. Invasive Inpatient Management

A. Confirm IUP by previous ultrasound report, bedside ultrasound performed either by Ob/Gyn at the time of the ED visit, or visualization of expelled POC.

B. Patients with hemodynamic compromise or complications such as infection or co-morbidities such as hypertension or diabetes should be admitted to the gynecology service.

C. Patients with significant hemorrhage and hemodynamic instability should have the following in the ED:
   a. Immediate GYN consultation with attending informed promptly.
   b. Placement of two IV > 18 G. Rapid infusion of normal saline to correct vital signs. Consideration of transfusion with cross matched or O negative blood.
   c. Placement of patient on GYN stretcher with continuous cardiac and BP monitoring.
   d. Laboratory: Type and cross 2 units PRBC, CBC with platelets, Electrolytes, quantitative HCG, PT/PTT, UA
   e. Ultrasound at bedside by OBGYN with confirmation by radiology if appropriate.
   f. Expedited transfer to OR when appropriate.

Patients who have failed surgical or medical abortion (RU486) can be triaged the same way into the three categories of non-invasive, invasive, or invasive inpatient management as above based on same ultrasound, exam and vital sign criteria. The non-invasive assessment will include patients who need reassurance that their course is within normal limits for a termination, which

can require up to 2-3 weeks to pass all of the tissue, in the case of a medical termination. Providers should resist premature intervention, yet remain mindful of the recent cases of Clostridum sordelli sepsis per CDC guidelines: Clinical findings include tachycardia, hypotension, edema, hemoconcentration, profound leukocytosis, and absence of fever. Mid-trimester SAB's are more likely to have incomplete placental separation and should have a lower threshold for the inpatient invasive management option, It is critical to ascertain whether an IUP was ever definitively identified prior to the termination procedure. Patients who have undergone a termination procedure without a prior ultrasound showing a DIUP may have an ectopic pregnancy. The possibility of heterotopic pregnancy should also be considered in patients who present with abdominal pain, abnormal bleeding or other concerning symptoms after undergoing a termination procedure.