Assessment of the OB Patient Presenting to the ED

May 17th 2021
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Disclosures

• I have no financial disclosure to make
• I steal slides shamelessly but give credit
Objectives

• At the conclusion of this presentation participants will be able to:

  • Identify words and their definitions specific to the field of obstetrics
  • Create a binder specific to the OB patient
  • Be able to create a transfer plan from the ED to a facility with OB services
Housekeeping

• CME’s – working with the CME office at the University Of Iowa –
• Still waiting on the date that our team can start visiting facilities

• Chat your name, facility attendees in the chat box
• Using the “reaction” tab – How are you feeling today?
• Raise hand if your ED has seen an OB patient in the last 60 days
• Who is new on this call today – give us a thumbs up
A Pregnant Person Walks Into Your ER
Deadly Triad

- Denial
- Delay
- Dismissal
Neonatal
Emergencies
Assessment
Maternal and Fetal
Today’s Topics

• Physiology and Pathophysiology of the Birth Person
• Building your toolkit
  • Vocabulary
  • Transfers
• Wrap up
Physiological Changes of Pregnancy

5/2021
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Jill Henkle RNC-OB
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Objectives

Describe the normal physiological changes in the birth person

Identify the abnormal physiological changes in the birth person
Physiological Changes in Pregnancy

Early changes:
• Nausea and vomiting
• Breast engorgement
• Missed period
• Positive pregnancy test

Diagnosis:
• Ultrasound: 4-5 weeks (gestational sac in uterus)
• Fetal Heart Rate Doppler as early as 8-10 weeks
• Fetal movement (16-18 weeks)
Physiological Changes in Pregnancy

Frequent issues in pregnancy

- UTI
- Dehydration
- Constipation
- Back/hip pain
- Increased vaginal discharge
Physiological Changes in Pregnancy

Endocrine

- **Progesterone**
  - Produced by corpus luteum until 10 weeks; then placenta produces until 40 weeks gestation.
  - Prevents premature contractions; decreases tone of uterus; develops mammary glands; increases fat storage

- **Estrogen**
  - Produced by corpus luteum until 10 weeks; then placenta produces until 40 weeks gestation
  - Vasodilation effect: increase blood flow to uterus/placenta

- **Relaxin**
  - Produced by corpus luteum then placenta produces
  - Strong vasodilator; increases kidney function
  - Muscle relaxant for uterus and pelvis

- **Glucose**
  - Monitor for gestational diabetes
  - Type 1 diabetic may need more insulin as the pregnancy progresses
Physiological Changes in Pregnancy

Reproductive System Changes

• Uterus:
  • Grows with weeks of gestation (singleton); until 38 weeks when descent occurs
  • Displaces the other organs

• Cervix
  • Enlarged mucus glands (Mucus Plug)
  • Closer to delivery cervix will shorten (thin) and dilate
  • Purple/Blue discoloration (Chadwicks sign)

• Vagina
  • Increased blood supply changes color from pink to purple
  • More elastic in 2nd trimester
  • Increased vaginal discharge

Physiological Changes in Pregnancy

Musculoskeletal

- Postural
  - Lumbar lordosis
  - Displacement of shoulders, spine, pelvis
- Articular Changes
  - Increased connective tissue pliability and laxity
  - Symphysis pubis
  - Pelvic Joint
  - Sacrococcygeal joints

FIGURE 5.2: With pregnancy, human females have to adapt with increased lumbar lordosis to accommodate the anterior-translated center of mass. (A) Non-gravid female. (B) Gravid female without lumbar lordosis compensation. (C) Gravid female with lumbar lordosis compensation.

Huynh, Zheng & Kennedy 2017
Physiological Changes in Pregnancy

Neuromuscular
• Abdominal muscles
• Pelvic muscles

Cardiovascular
• Cardiac Output: increases to 30-50% more by 3rd trimester
• Heart Rate increases slightly
• Blood pressure: lower in 1st trimester; returns to baseline during 2nd trimester
• Complaints:
  • Palpitations, decreases exercise tolerance, dizziness
Physiological Changes in Pregnancy

Respiratory Changes

• Increase demand
• Lung volume
  • Tidal volume increases
  • Increased consumption
  • May experience feeling of shortness of breath
• Diaphragm elevates due to enlarged uterus
• Ligaments connecting ribs and sternum are relaxed
• Increased oxygen consumption
Physiological Changes in Pregnancy

Gastrointestinal

- Slowed GI motility
  - Constipation
- Gastroesophageal reflux
- Nausea and vomiting
  - Begins 4-8 weeks; usually over by 14-16 weeks
  - Due to increased Human Growth Hormone; progesterone; relaxation of smooth muscles of the stomach

Renal/GU

- Increases size of kidney and ureter
- Increase urinary frequency in 3rd trimester; or incontinence
- Relaxed smooth muscles can increase risk of UTI
- Hydronephrosis later in pregnancy is normal
- Increased Glomerular filtration rates
  - Increased Creatinine clearance, protein, albumin
  - Dehydration: must increase fluids
Physiological Changes in Pregnancy

Nutrition

• Increased caloric need
• Gastroesophageal reflux
• Nausea and vomiting
  • Begins 4-8 weeks; usually over by 14-16 weeks
  • Due to increased Human Growth Hormone; progesterone; relaxation of smooth muscles of the stomach

Integumentary

• Hyperpigmentation: linea nigra, chloasma
• Stretch Marks
• Spider veins
Possible problems during pregnancy

Carpel Tunnel Syndrome
- Due to increase blood volume and swelling
- TX: Splinting, OT
- Often subsides after delivery

Muscle Cramps
- Leg cramps
- TX: increase fluids, stretch, calcium and magnesium supplements

Pre-eclampsia
- Begins as early as 20 weeks and as late as 6 weeks postpartum
- S/S: elevated blood pressure, swelling, headache, visual changes, epigastric pain,
- Labs: proteinuria, elevated liver enzymes, lower platelet count, elevated BUN/Creatinine
References


Start Creating Your Toolkit

• Information at your fingertips
• Transfer Information
• Checklists
• Protocols
• Guidelines
• Vocabulary
Vocabulary Terms – OB

• **Gravida**
  • The number of times the birth person has been pregnant - This includes the current pregnancy if the patient is pregnant

• **Para**
  • The number of viable births, greater than 20 weeks gestation.
Gravida/Para

• What normal labor looks like can depend on the number of previous births (para)
• Outcomes of previous pregnancies can indicate risk and outcome of the current pregnancy
• The number of previous pregnancies and deliveries (gravity and para) can influence risks associated with current pregnancy
• Para – TPAL
<table>
<thead>
<tr>
<th></th>
<th>Term Births</th>
<th>Number of full term births delivered at 37 weeks or more.</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Preterm Births</td>
<td>Number of preterm births delivered at less than 37 weeks.</td>
</tr>
<tr>
<td>A</td>
<td>Abortions</td>
<td>Includes ectopic pregnancies, miscarriages, spontaneous abortions, elective abortions, etc.</td>
</tr>
<tr>
<td>L</td>
<td>Living</td>
<td>Number of living children.</td>
</tr>
</tbody>
</table>
• Gestation

• How long a birth person is pregnant

• Gestational Age

• Measured in weeks from the first day of last menstrual period
• How to calculate a due date – EDD
  • OB Wheel
  • Pregnancy Due Date Calculator (perinatology.com)
  • Nagales rule -
Transfer of OB Patients
Binder Tab #2 Transfer

• Transfer to non tertiary center that has OB equipment
  • Clinical staff and equipment
  • Call for tertiary care transport

• Transfer to tertiary care facility
  • Longer distance?
  • Might have complications with staff unprepared or not trained for situation
Transfer Communication

- Triage
- Assessment
- Communication with birth person’s provider
- Consult or communication with tertiary care center
Phone A Friend

WHERE IS THE NEAREST DELIVERY FACILITY

WHAT RESOURCES DO THEY HAVE

DO YOU HAVE A “RELATIONSHIP” WITH THIS FACILITY

WHAT IS THE PROCESS OF TRANSFER TO FACILITY
Phone a Friend

WHERE IS THE NEAREST TERTIARY UNIT

WHAT IS THE PROCESS FOR TRANSFER?
Communication

• SBAR
  Situation
  Background
  Assessment
  Recommendation

Use your transfer forms for your SBAR -
**MATERNAL TRANSFER FORM**

Patient’s Full Name: ________________________________

Weeks Gestation: __________ Date/Time: ________/____

Age: ______ G: ______ P: ______ EDD: ________

Based on: □ LMP/Conception □ Dating Ultrasound

Referring Provider: ____________________________

Contact #: (____)__________________________

Name of person receiving call: _______________________

Time Called: ____________

Does receiving hospital have medical records: □ YES □ NO □ UNKNOWN

Medical Records Included: □ # of pages ______

**SITUATION and Reason for Transport**

Status at Time of Transport: □ Stable □ Unstable

Emergency Contact: ____________________________

Contact #: (____)__________________________

<table>
<thead>
<tr>
<th>FHTs:</th>
<th>Ctx Pattern:</th>
</tr>
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<tbody>
<tr>
<td>Dilation/Station:</td>
<td>BP: /</td>
</tr>
<tr>
<td>Last food/fluid PO (date/time):</td>
<td>Temp:</td>
</tr>
<tr>
<td>Last Void Time: __<strong><strong>:</strong></strong></td>
<td>Pulse:</td>
</tr>
<tr>
<td>IV Gauge:</td>
<td>Ultrasound Findings:</td>
</tr>
<tr>
<td>Total infused prior to transport:</td>
<td></td>
</tr>
</tbody>
</table>

**Mode of Transport**

- □ Private Vehicle
- □ EMS
- □ Other

EMS Staff:

Called: ____________ Arrived: ________

Departed: ________

Time at hospital door: ________

Time at L&D room: ________

Time Hospital Provider Received ________

Time verbal report: ________

**Labor History**

Latent Onset: (date/time): ____________

Active Onset: (date/time): ______ / ______

2nd Stage Onset: (date/time): ______ / ______

AROM/SROM: (date/time): ______ / ______

Birth: (date/time): ______ / ______

Placenta: (date/time): ______ / ______

EBL: ______

Fluid: □ CLEAR □ MECONIUM □ BLOODY

Lacerations: □ NO □ YES, Details ______

**BACKGROUND**

Current Pregnancy Complications:

Significant Medical History:

Prior Pregnancy Outcomes: ________________________________

- □ NKA, Allergies: ________________________________
- □ Current Medications/Supplements: ________________________________

Blood Type: ______ / ______

BP Baseline: ______ / ______

GDM Testing: □ YES □ NO Hct: ______ (date: ______)

ALERTS: □ Rh- □ HSV+ □ Rubella Non-Immune □ HEP B+ □ HIV+

□ GBS Unknown □ GBS+ □ GBS- (date: ______)

**ASSESSMENT:**

**RECOMMENDATION**

Revised January 2018

Reference: Home Birth Summit
Next Didactic

June 21, 2021 – Noon – 1:30

- Maternal Assessment and Triage
- Maternal Early Warning Signs
- Post Birth Warning Signs
- Please chat in or e-mail questions
THANK YOU
Round Table and Interaction

Let’s Talk about today –
This is like “office hours”

Informal Time for
All Teach All Learn-

Share experiences with each other

We will be sending out an evaluation – please answer and provide feedback