



Peri-FACTS

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Peri-FACTS Case # 793

Chapter Topic:

Sudden/Unexpected Death in
Obstetrics.

**This week's clinical case
study:** S.C.

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Peri-FACTS

*A Multimedia eJournal for
Obstetric Care Providers*

From the University of Rochester's
Department of Obstetrics and Gynecology



**This Week The Peri-FACTS
Channel, presents: STRIP
ROUNDS—The First in a
Series on Fetal Heart Rate
Terminology and
Interpretation.**

Learning Objectives for **Peri-FACTS** Case # 793: Upon
completion, the learner will be able to:

- Interpret correctly specific components of the fetal heart rate tracing.
- Identify methods for preparing for critical care events in a LDRP setting.
- Describe the importance of grief counseling for the emotional recovery of the family.

This clinical case study focuses on the materials found in the chapter topic, *Resuscitation in the Birthing Room: Family Reactions when Joyous Anticipation Turns to Shock*, transmitted last week.

S.C. is a 26-year-old G5, P1304, who presents to your triage unit at 39 weeks' gestation for evaluation for labor. A review of her prenatal record reveals that S.C. is scheduled for a repeat cesarean section at 40 weeks' gestation due to a history of a previous classic cesarean section. Further review of her prenatal record indicates the following comorbidities.

- *Morbid obese (>350 lb)*
- *Poorly controlled Type 2 diabetes mellitus*
- *Previous history of severe preeclampsia*

S.C. relates that she has not noticed the “baby moving as much as normal today.” Her admission blood glucose is 320 mg/dL and S.C. states that she did not take her insulin today because, “I only take it when I eat and I didn’t eat breakfast.” She is accompanied by her husband who tells you this is his first baby and it is a boy. You immediately place S.C. on the electronic fetal monitor to evaluate the fetal status.

TOPIC: SUDDEN/UNEXPECTED DEATH IN OSTETRICS

Question 1 (7.7 points): A review of S.C.’s fetal heart rate tracing by the care provider results in the decision to move toward immediate delivery. Anesthesia personnel are notified and help transfer S.C. to the operating suite for an urgent cesarean section. Because of her morbid obesity and concern for a compromised airway, regional anesthesia is administered. S.C.’s husband is able to be present for the delivery. The neonatal intensive care (NICU) team is present for the delivery. Once S.C.’s baby is delivered, he is noted to be limp, cyanotic, and apneic. Resuscitation measures are initiated immediately by the NICU team. S.C. and her husband ask you why their baby is not crying and when can they see him. Your appropriate response is:¹

- A. “You need to concentrate on yourself right now and we will take care of the baby.”
- B. “Right now the NICU team is working with your baby to help him. They will speak with you when they can.”
- C. “I don’t want you to get upset right now, so please try to calm down and the doctors will talk with you whenever they are free.”

Question 2 (7.7 points): True or False. Each area in a hospital is responsible for ensuring preparedness for emergency situations. One of the ways that your area can prepare is to have a training schedule for all team members in the use of emergency equipment.¹

- A. True
- B. False

Question 3 (7.7 points): True or False. During an emergency of this nature, it is not unusual for medical terminology shortcuts to be used when communicating between and within the teams. The primary nurse should assist the family in understanding by interpreting these terms for them.¹

- A. True
- B. False

Question 4 (7.7 points): True or False. The NICU team attempts to resuscitate S.C.’s baby, but is unsuccessful after 20 minutes of interventions. S.C. and her husband are counseled by her care provider and the neonatologist. Parent’s reactions to the loss of a child are always predictable as outlined in the grief stages.¹

- A. True
- B. False

Question 5 (7.7 points): One of the most meaningful gestures that any member of the team can make toward the family is:¹

- A. advising the family that this was probably meant to be.
- B. avoiding all mentions of the baby and the meaning of the loss to the family.
- C. hold their hands and tell them you are sorry.
- D. encourage the parents to think of their children at home.

Question 6 (7.7 points): True or False. Studies have shown that families do not necessarily benefit from grief counseling for closure when given by the members of the entire care provider team.¹

- A. True
- B. False

Question 7 (7.7 points): When a counseling session for closure is provided to the family, the session should consist of which of the following?¹

- A. A prescribed time frame that is strictly adhered to
- B. A quick review of events that occurred only during the resuscitation of the newborn
- C. Involvement of all members of the care provider team, as well as immediate, and extended family members
- D. Avoidance of discussion of the family's perceptions and feelings

Question 8 (7.7 points): True or False. Another function of a grief counseling session is to allow members of the care provider team to express their feelings of sadness. It is important that the team members remain unemotional at this time to maintain a level of professionalism.¹

- A. True
- B. False

INTERPRETATION OF THE FHR TRACING AND FETAL PHYSIOLOGY

Question 9 (7.7 points): S.C.'s fetal heart rate tracing in columns 79301 through 79312 can be interpreted best as:²

- A. baseline 120 bpm, moderate variability (6 to 25 bpm), with accelerations present and, late decelerations.
- B. baseline 135 bpm, moderate variability (6 to 25 bpm), variable decelerations with reassuring components.

- C. baseline 140 bpm, minimal variability (3 to 5 bpm), variable decelerations, and one acceleration.

Question 10 (7.7 points): Based on your assessment of this fetal monitor tracing for columns 79301 to 79320, your interpretation and interventions would include which of the following:²

- A. This is a reassuring fetal heart rate; continue with present plan of care.
- B. This is not a reassuring fetal heart rate; change position to lateral recumbent.
- C. This is not a reassuring fetal heart rate; initiate intravenous (IV) access and administer a bolus of normal saline.
- D. This is not a reassuring fetal heart rate; administer oxygen via a non-rebreather mask at 10 L/min.
- E. This is not a reassuring fetal heart rate; notify the care provider.
- F. B, C, D, and E
- G. B, C, and D

Question 11 (7.7 points): In columns 79336 to 79341, your assessment of the baseline variability is:²

- A. absent (0 to 3bpm).
- B. minimal (3 to 5 bpm).
- C. moderate (6 to 25 bpm).
- D. increased (>25 bpm).

Question 12 (7.7 points): In response to your assessment of the fetal heart rate variability in the previous question, you would anticipate the following change in S.C.'s plan of care.²

- A. Continue with the present plan of care
- B. Move toward immediate delivery
- C. Schedule S.C. for a biophysical profile and a planned cesarean delivery in the morning.

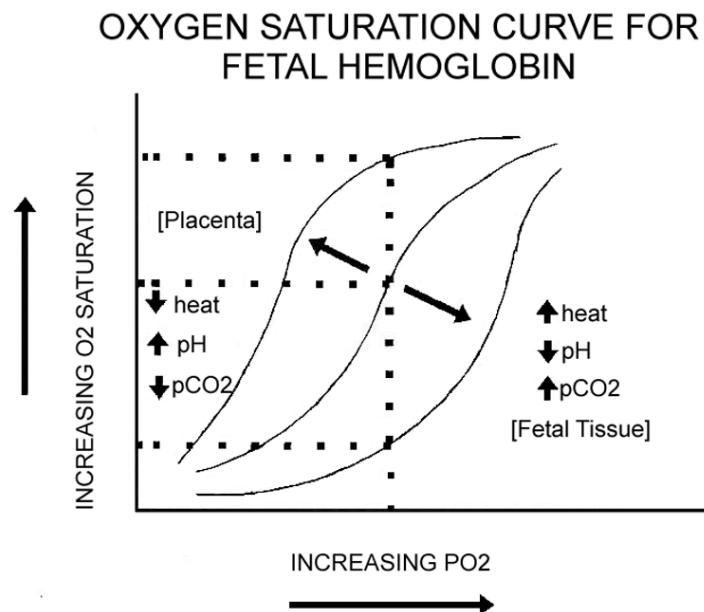
Question 13 (7.7 points): Newborn metabolic acidosis is easier to correct with the proper interventions than newborn respiratory acidosis.²

- A. True
- B. False

BONUS QUESTION

Question 14 (7.7 points): Back-to-Basics: True or False. In relationship to the oxygen saturation curve for fetal hemoglobin, when the fetus encounters an increase in

temperature or a decrease in pH, the oxygen dissociation curve will swing to the right releasing more oxygen.²



- A. True
- B. False

RELATED READING

1. The University of Rochester Medical Center, **Peri-FACTS** Education Program (2008). Chapter Topic: Resuscitation in the Birthing Room: Family Reactions when Joyous Anticipation Turns to Shock, Case #792. Rochester, NY: The University of Rochester.
2. Woods JR, Glantz JC, Pittinaro DR, and Giffi C (2007). Principles of Fetal Heart Rate Monitoring, (Ed. 3). Rochester, NY: **Peri-FACTS**, University of Rochester.

* We reserve the right to modify certain aspects of this case for purposes of confidentiality.

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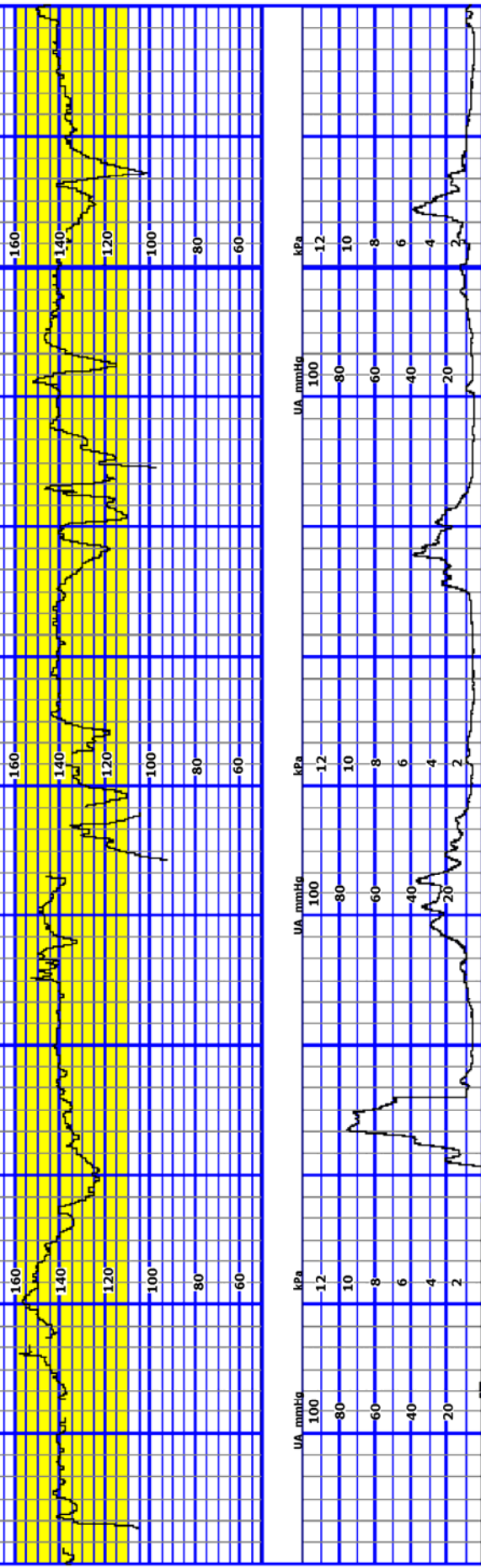
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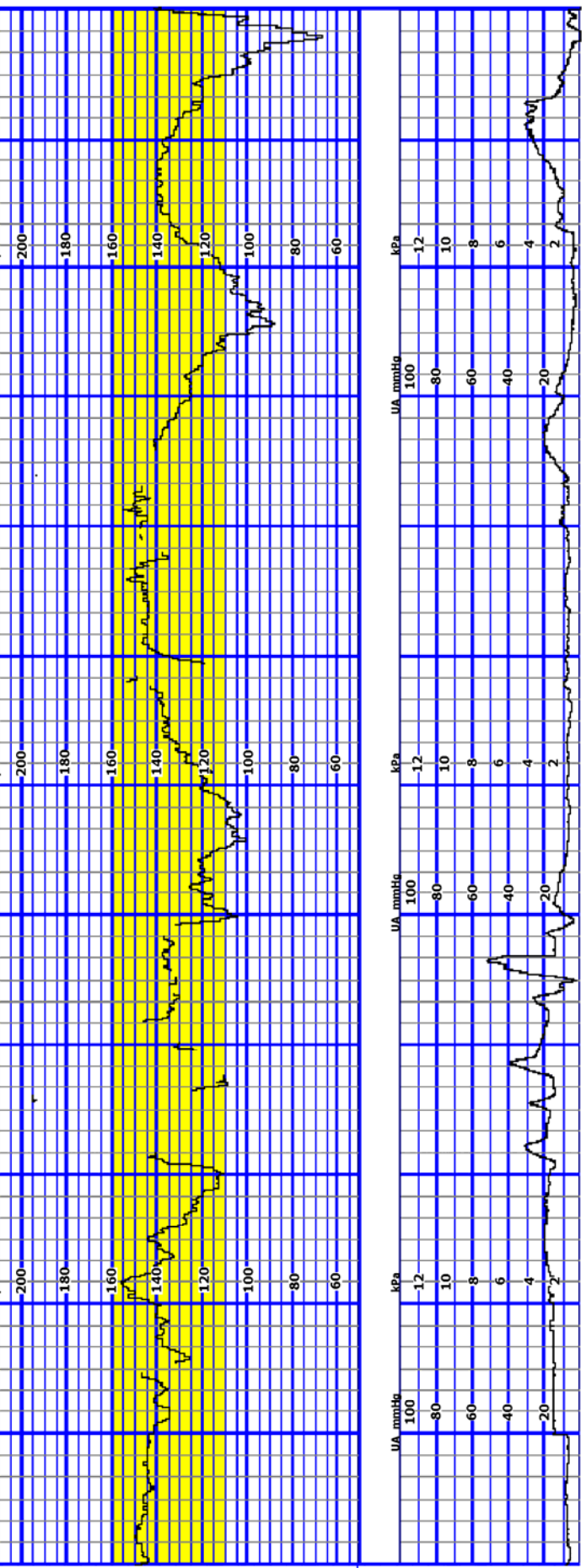
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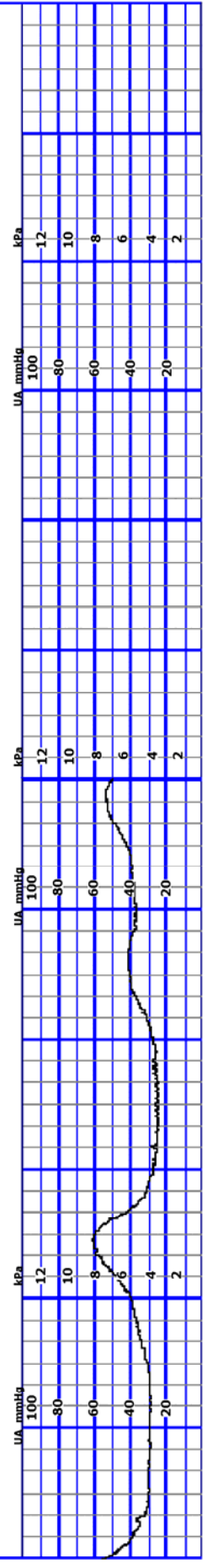
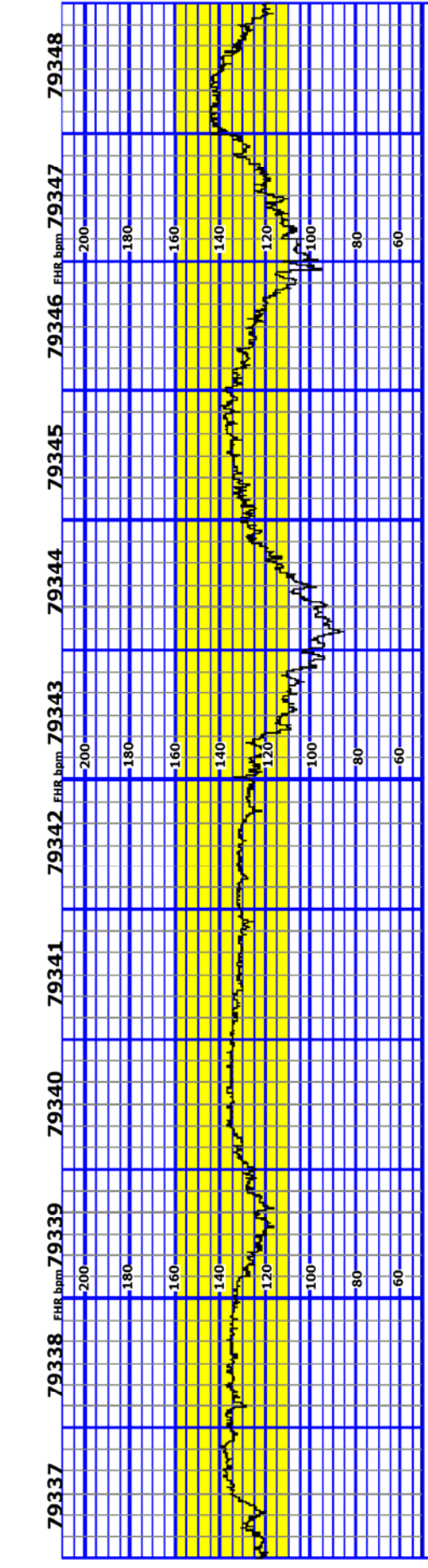
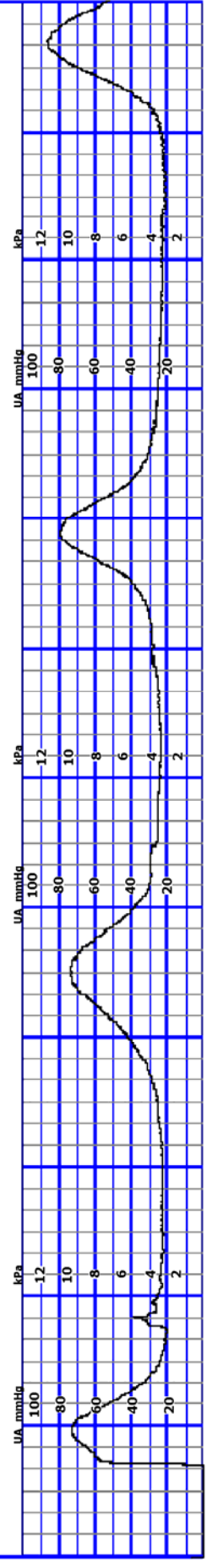
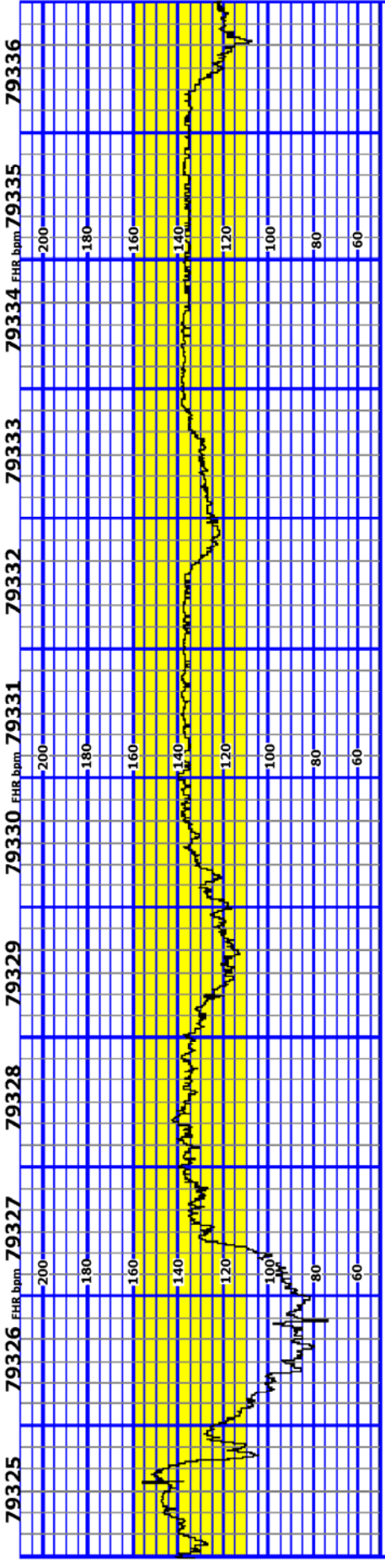
79301 79302 FHR bpm 79303 79304 79305 79306 FHR bpm 79307 79308 79309 79310 FHR bpm 79311 79312

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Case 793 - S.C.
Ext. Cardio/Toco



79313 79314 FHR bpm 79315 79316 79317 79318 FHR bpm 79319 79320 79321 79322 FHR bpm 79323 79324





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Case 793 – ANSWER SHEET

Transmitted: April 3, 2008

Topic: Sudden/Unexpected Death in Obstetrics

1. _____

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13. _____

14. _____

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Case 793 – ANSWER SHEET

Transmitted: April 3, 2008

Topic: Sudden/Unexpected Death in Obstetrics

1. B At the moment of crisis management, stick with the facts and avoid patronizing statements.
2. A This is an obvious truth, but one often overlooked.
3. A Half-statements easily can be misinterpreted.
4. B Couples often respond in unpredictable ways and cannot be “classified”.
5. C This is a single gesture, but, done correctly, is interpreted as important care at a time of crisis.
6. B To avoid emerging feelings of suspicion that not all was revealed, the care team in total should be involved in the couple’s postpartum care.
7. C Involvement of the immediate and extended family is best after an obstetric crisis, but, HIPAA rules must be agreed upon by the patient first.
8. B Expressing statements such as “I am sorry your family is going through this” is meaningful and does not put the care team at risk of “confessing guilt”.
9. C
10. F With the deep variable decelerations, minimal variability, and the loss of reassuring components in the variable decelerations, it is important to improve uteroplacental circulation and oxygen transfer at the placental level. By placing the patient in lateral position, providing oxygen, and intravenous fluids, cardiac output improves and more free oxygen is available to transfer to the fetus.
11. B
12. B With the presence of minimal variability, variable decelerations that have lost their reassuring components and a rising baseline, the concern for fetal hypoxia would indicate the need for an immediate delivery.

13. B Adequate newborn ventilation should reverse respiratory acidosis due to elevated CO₂ retention. Metabolic acidosis involves generation of fixed acids in the tissues; correction requires establishing adequate tissue perfusion, and then absorption and elimination of those fixed acids.
14. A The degree of fetal oxygenation of its red blood cells (location on the oxygen saturation curve) is affected by the environment that the red blood cell encounters. Certain conditions, such as increased heat, lower pH (acidosis), and increased PCO₂ exist in the peripheral tissues and will swing the oxygen saturation curve to the right. With this change, the fetal red blood cells will rapidly release oxygen and take on CO₂.

OUTCOME

S.C.'s physical recovery is complicated by difficulty in managing her insulin requirements and her general understanding of the process. She is referred to Endocrinology who is working extensively in regulating her diabetes through education, diet, and glucose control. S.C. and her husband are benefiting from a referral to the Pregnancy Loss Support (PLSS) group and are receiving regular counseling from their assigned grief counselor.

She is discharged to home on post-operative day 5 and was seen one week later for a follow-up visit. Her glucose levels have been normal and she and her family are demonstrating appropriate grieving behavior.

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