FPQC

Florida Perinatal Quality Collaborative

Fetal Heart Rate Assessment/Concerns

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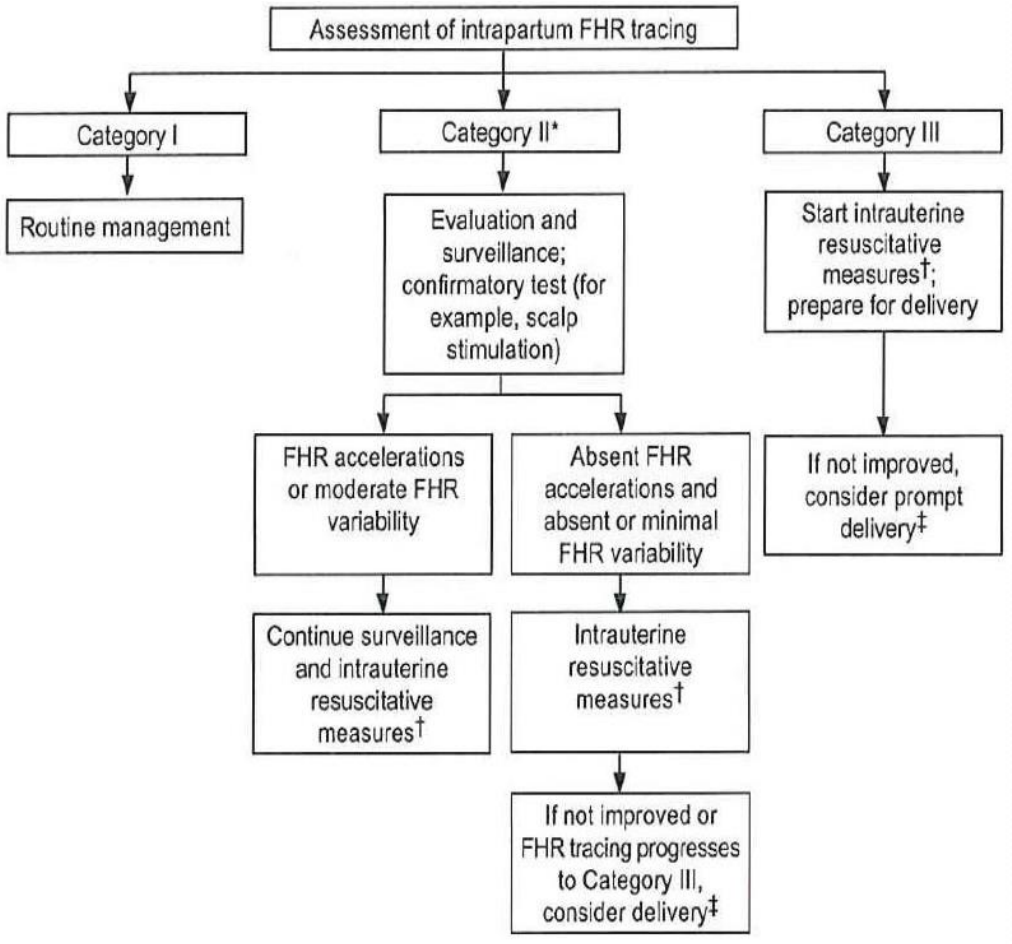
Partnering to Improve Health Care Quality
for Mothers and Babies

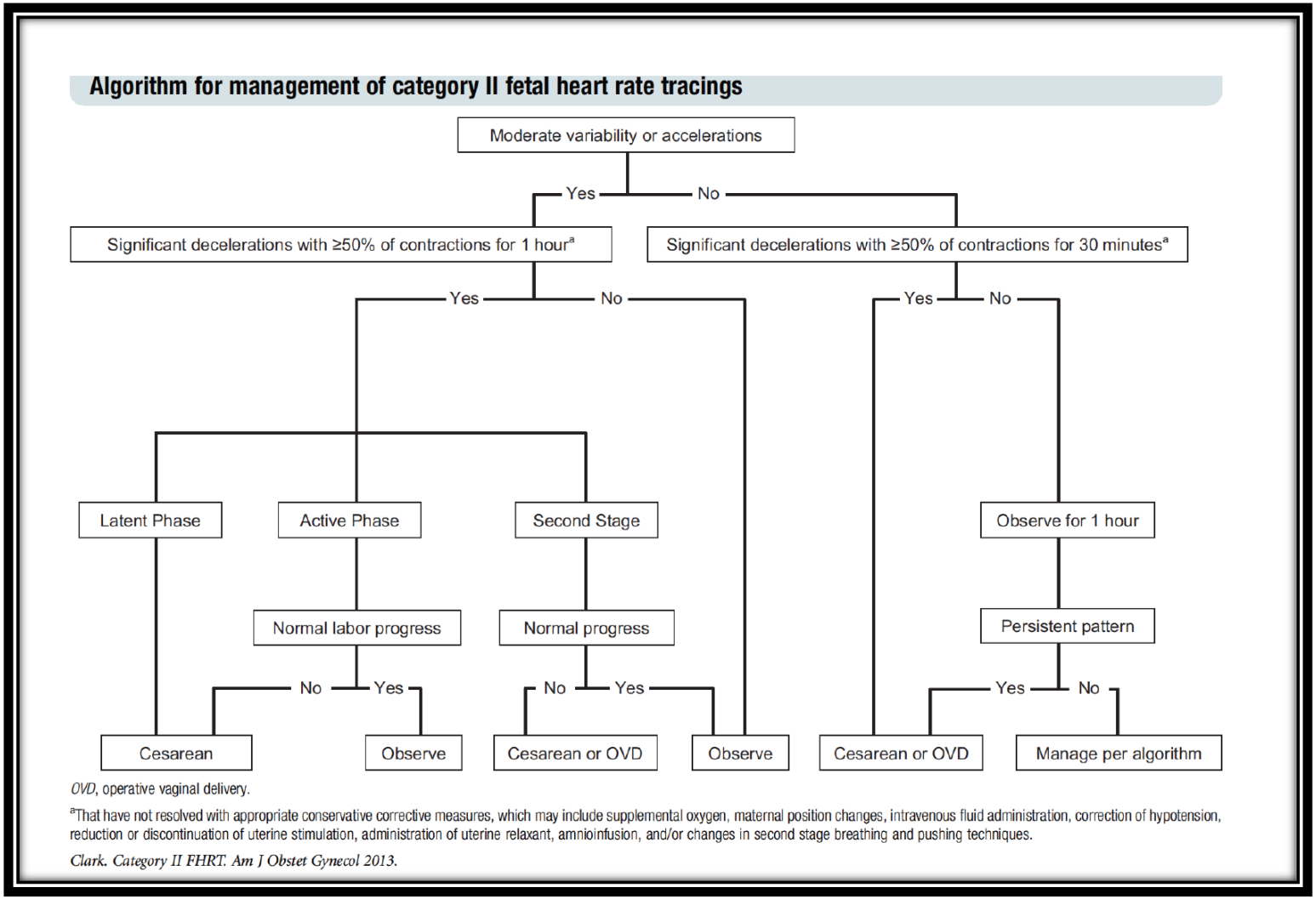
Management of FHR Tracings



Assessment of intrapartum fetal heart rate monitoring. *Given the wide variation of fetal heart rate (FHR) tracings in Category II, this algorithm is not meant to represent assessment and management of all potential FHR tracings but provide an action template for common clinical situations. †Intrauterine resuscitative measures may include oxygen supplementation, position change, intravenous fluids, stopping oxytocin, tocolysis, and amnioinfusion. ‡Timing and mode of delivery based on feasibility and maternal-fetal status. Modified from Management of intrapartum fetal heart rate tracings. Practice Bulletin No. 116. American College of Obstetricians and Gynecologists. Obstet Gynecol 2010;116:1232–40.

Spong. Preventing the First Cesarean Delivery. Obstet Gynecol 2012.

Clark's Algorithm for Management of Cat II Tracings



ACOG Committee Opinion

Committee on Obstetric Practice

Number 326, December 2005

Inappropriate Use of the Terms Fetal Distress and Birth Asphyxia

ABSTRACT: The Committee on Obstetric Practice is concerned about the continued use of the term "fetal distress" as an antepartum or intrapartum diagnosis and the term "birth asphyxia" as a neonatal diagnosis. The Committee reaffirms that the term fetal distress is imprecise and nonspecific. The communication between clinicians caring for the woman and those caring for her neonate is best served by replacing the term fetal distress with "nonreassuring fetal status," followed by a further description of findings (eg, repetitive variable decelerations, fetal tachycardia or bradycardia, late decelerations, or low biophysical profile). Also, the term birth asphyxia is a nonspecific diagnosis and should not be used.

The Committee on Obstetric Practice is concerned about the continued use of the term "fetal distress" as an antepartum or intrapartum diagnosis and the term "birth asphyxia" as a neonatal diagnosis. The Committee reaffirms that the term fetal distress is imprecise and nonspecific. The term has a low positive predictive value even in high-risk populations and often is associated with an infant who is in good condition at birth as determined by the Apgar score or umbilical cord blood gas analysis or both. The communication between clinicians caring for the woman and those caring for her neonate is best served by replacing the term fetal distress with "nonreassuring fetal status," followed by a further description of findings (eg, repetitive variable decelerations, fetal tachycardia or bradycardia, late decelerations, or low biophysical profile). Whereas in the past, the term fetal distress generally referred to an ill fetus, nonreassuring fetal status describes the clinician's interpretation of data regarding fetal status (ie, the clinician is not reassured by the findings). This term acknowledges the imprecision inherent in the interpretation of the data. Therefore, the diagnosis of nonreassuring fetal status can be consistent with the delivery of a vigorous neonate.

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EFM versus Intermittent Auscultation

- "There is evidence that the use of EFM increases the rate of cesarean deliveries and operative vaginal deliveries"
- "limitations of EFM include poor inter-observer and intra-observer reliability, uncertain efficacy, and a high false-positive rate"

– ACOG Practice Bulletin 106

EFM compared with Intermittent Auscultation

- EFM:
  - Increased the overall cesarean delivery rate and the cesarean delivery rate for abnormal FHR or acidosis or both
  - Increased risk of both vacuum and forceps delivery
  - Did not reduce perinatal mortality
  - Did not reduce risk of cerebral palsy
  - Did reduce risk of neonatal seizures

ACOG Practice Bulletin 106

EFM versus Intermittent Auscultation

- Intermittent Auscultation, for low risk women, is considered a safe alternative method
  - Promotes freedom of movement
  - Promotes hands-on nursing care (1:1 support)
  - Non-Invasive technique with comparable outcomes to those monitored with EFM

ACOG Practice Bulletin 106 and AWHONN Fetal Heart Monitoring Principles and Practice

Intermittent Auscultation

- "Given that the available data do not show a clear benefit for the use of EFM over IA, either option is acceptable in a patient without complications." – ACOG
- IA allows women more mobility, which in turn increases comfort and progress of labor. – ACNM
- "A woman's preferences and clinical presentation should guide selection of FHM techniques with consideration given to use of the least invasive methods." – AWHONN
- Follow AWHONN staffing guidelines 1:1 active and 2nd stage labor- AWHONN

CMQCC
California Maternal
Quality Care Collaborative

Toolkit Recommendation:

Implement Intermittent Monitoring Policies for Low-Risk Women

- Implement policies that include a risk assessment tool, or checklist with exclusion criteria, to assist in identifying patients for which intermittent auscultation or intermittent EFM is appropriate
- Modify standing admission orders to reflect the use of intermittent auscultation or EFM as the default mode of monitoring for women who do not meet exclusion criteria
- Implement initial and ongoing training and education of all nurses and providers on intermittent auscultation and/or intermittent EFM procedures
- Provide patient education for the use of intermittent methods of monitoring and engage in shared decision making in order to determine the most appropriate method for each patient
- Ensure appropriate nurse staffing to accommodate intermittent monitoring

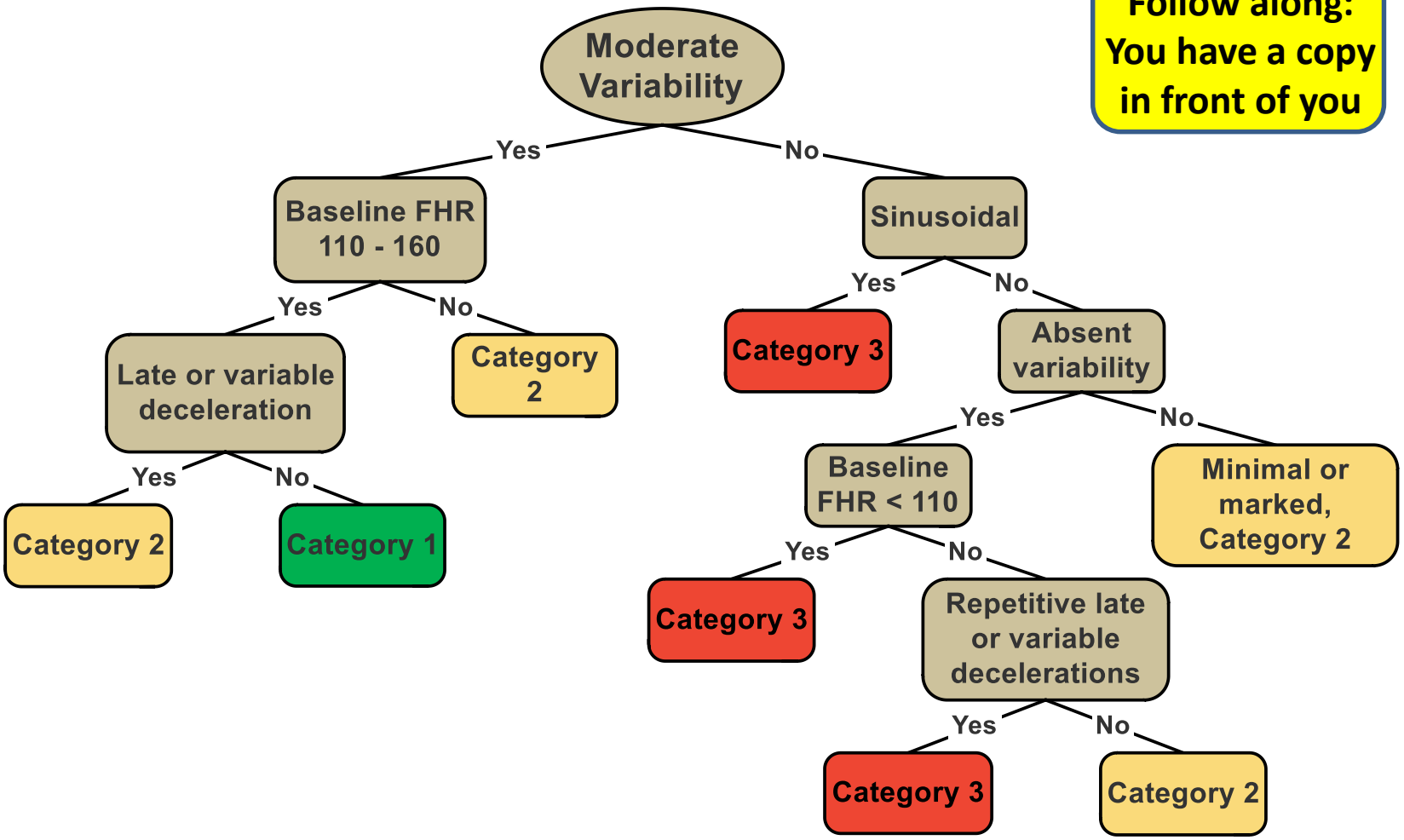
Labor Support Skills to Promote Vaginal Birth

2-Day Regional Workshops

- Learn more about Intermittent Auscultation!
- Also, learn more about nursing strategies to promote vaginal birth
  - Positioning
  - Activity
  - Doula
  - Pain Management options

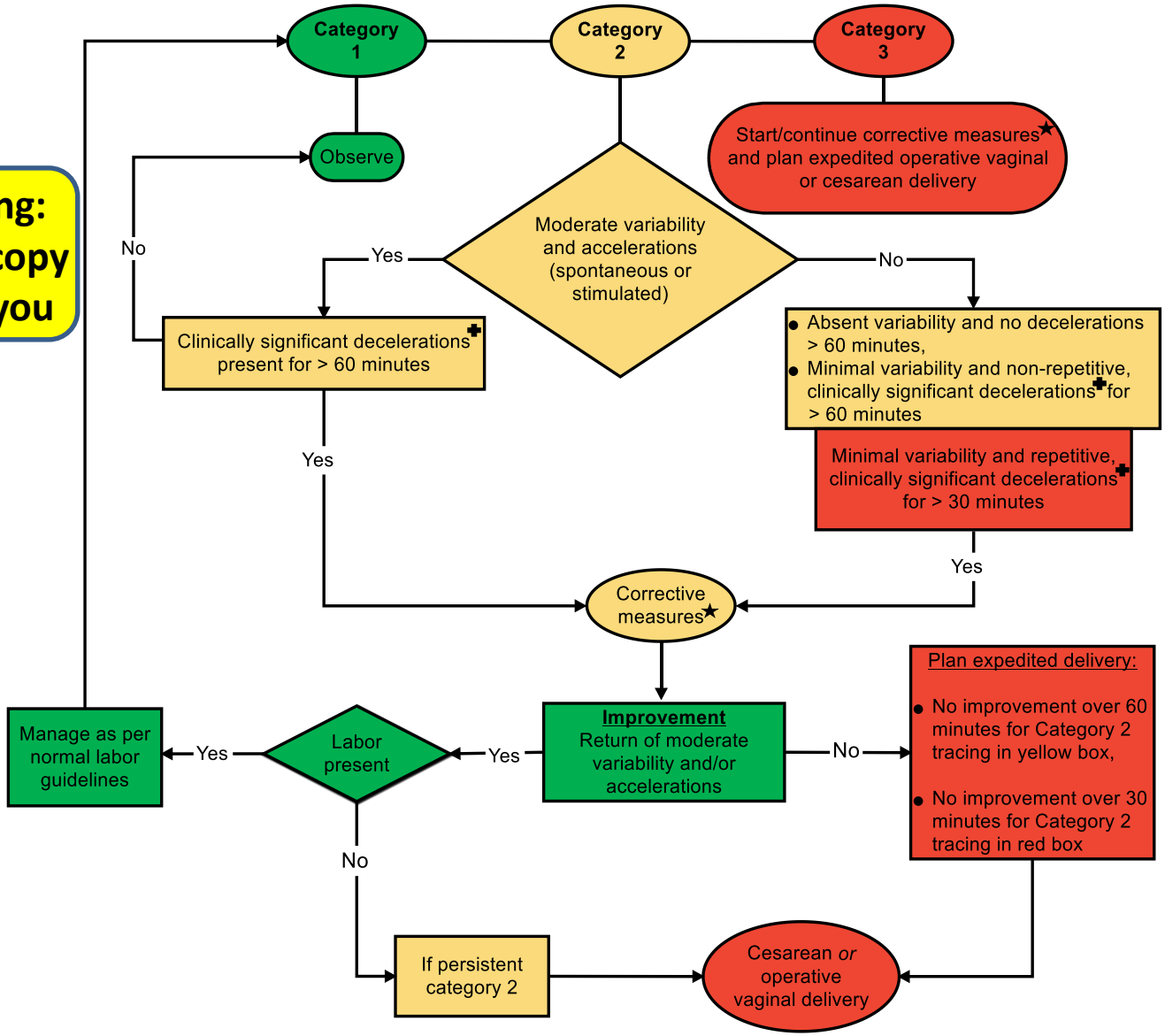
Interpreting the Fetal cardiotocograph using current NICHD terminology
(adapted from Macones, *Am J Obstet Gynecol* 2008;112:660-6)

Follow along: You have a copy in front of you



Management of Fetal Heart Rate Tracings

Follow along: You have a copy in front of you



✚ Clinically significant decelerations include:

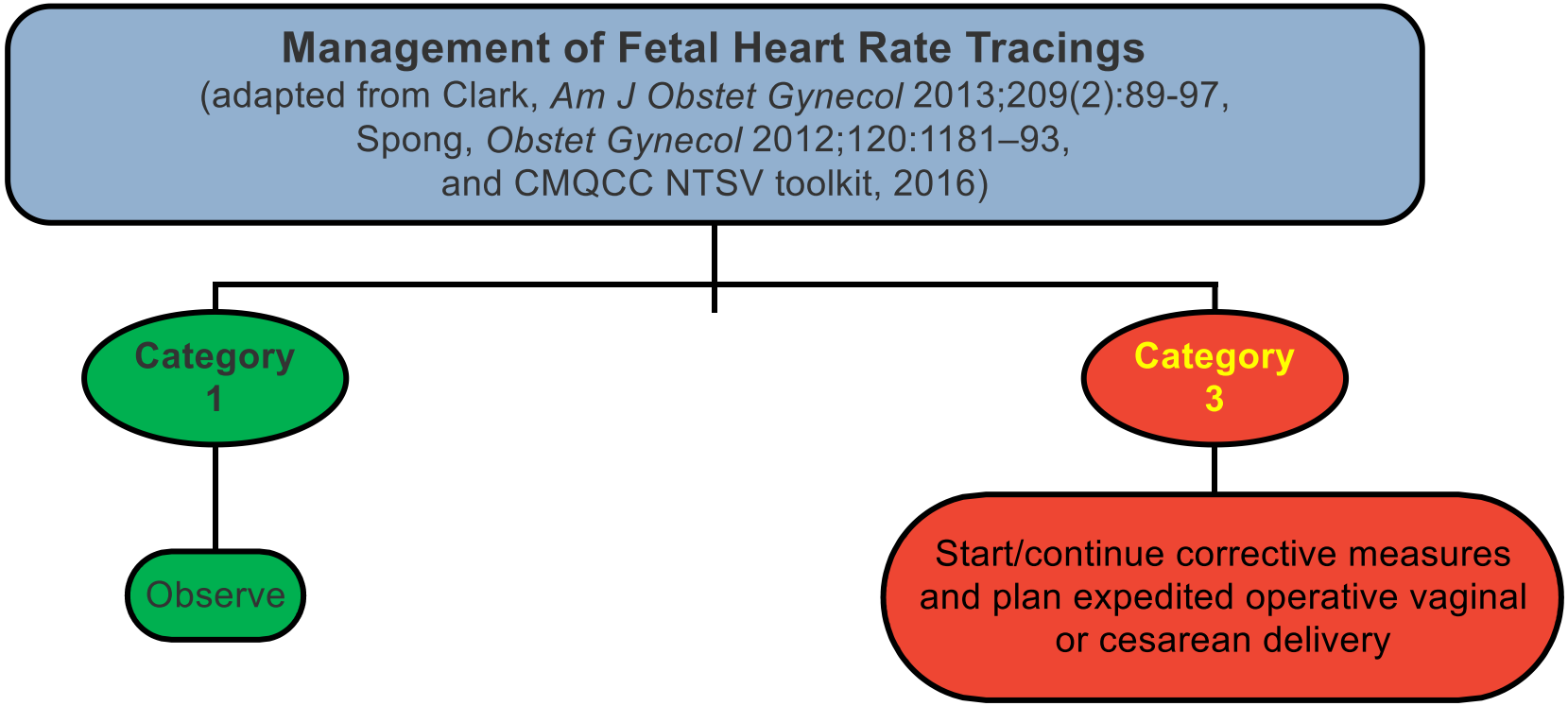
- Prolonged decelerations
- Late decelerations
- Variable decelerations lasting 60 seconds *and* nadir to 60 beats per minute or descent at least 60 beats from baseline

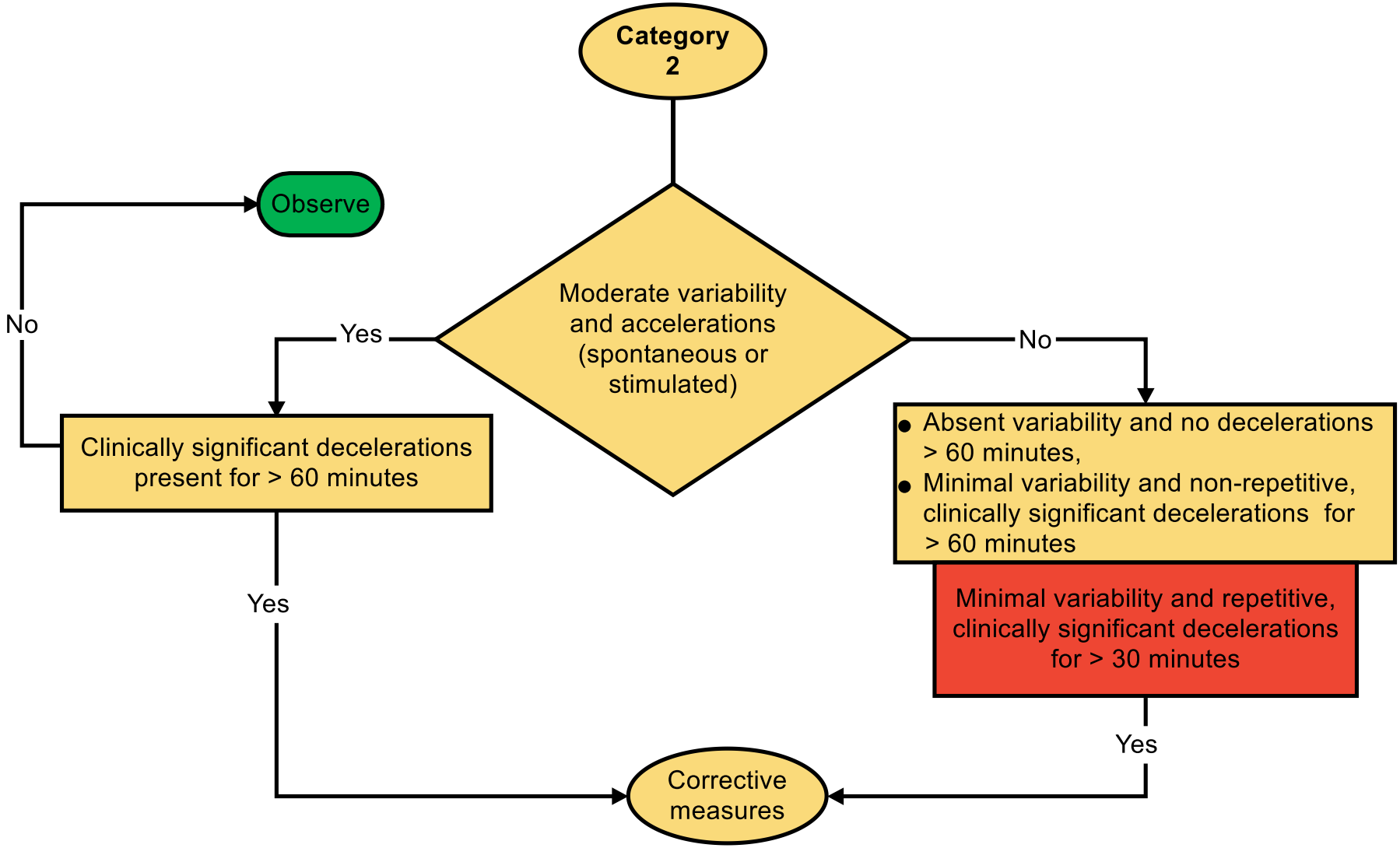
For indeterminate, abnormal tracings:

- Do not delay delivery if clinically appropriate
- If tracing remains category 2, then reassess every 30 minutes
- If fetal heart rate tracing improves to category 1, then observe and continue close observation
- If the tracing progresses to category 3, then make preparations for expedited delivery as per the top right side of the algorithm
- The algorithm does not apply to the very premature fetus

★ Corrective Measures

- Examine patient (cord prolapse or rapid labor) and perform fetal stimulation (scalp, vibroacoustic, gently move maternal abdomen)
- Correct maternal hypotension (lateral positioning, 500 - 1,000 mL bolus isotonic fluid, vasopressor agents),
- Improve oxygenation via non-rebreathing face mask,
- Amnioinfusion for significant, repetitive variable decelerations,
- Decrease or discontinue oxytocin,
- Correct uterine tachysystole (terbutaline or nitroglycerin)


Management of Fetal Heart Rate Tracings
(adapted from Clark, Am J Obstet Gynecol 2013;209(2):89-97,
Spong, Obstet Gynecol 2012;120:1181–93,
and CMQCC NTSV toolkit, 2016)
Category 1
Observe
Category 3
Start/continue corrective measures and plan expedited operative vaginal or cesarean delivery


Category 2
Moderate variability and accelerations (spontaneous or stimulated)
Yes
No
Observe
No
Clinically significant decelerations present for > 60 minutes
Yes
Absent variability and no decelerations > 60 minutes,
Minimal variability and non-repetitive, clinically significant decelerations for > 60 minutes
Minimal variability and repetitive, clinically significant decelerations for > 30 minutes
Yes
Corrective measures

Category 2 Tracings:

- If tracing remains category 2, then reassess every 15-30 minutes
- If fetal heart rate tracing improves to category 1, then observe and continue close observation
- If the tracing progresses to category 3, then make preparations for expedited delivery as per the top right side of the algorithm
- Do not delay delivery if clinically appropriate
- The algorithm does not apply to the very premature fetus

Corrective measures include:

- Examine patient (cord prolapse or rapid labor)
- Lateral positioning
- Perform fetal stimulation (scalp, vibroacoustic, gently palpating maternal abdomen)
- Correct maternal hypotension (lateral positioning, 500 - 1,000 mL bolus isotonic fluid, vasopressor agents)
- Improve oxygenation via non-rebreathing face mask
- Amnioinfusion for significant, repetitive variables

Corrective measures include (cont):

- Correct uterine tachysystole (terbutaline or nitroglycerin)
- Decrease or discontinue oxytocin
- 2nd Stage Labor: Consider pushing strategies (side lying, push every other contraction)

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QUESTIONS?