Labor Dystocia

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Partnering to Improve Health Care Quality
for Mothers and Babies

Did you know?

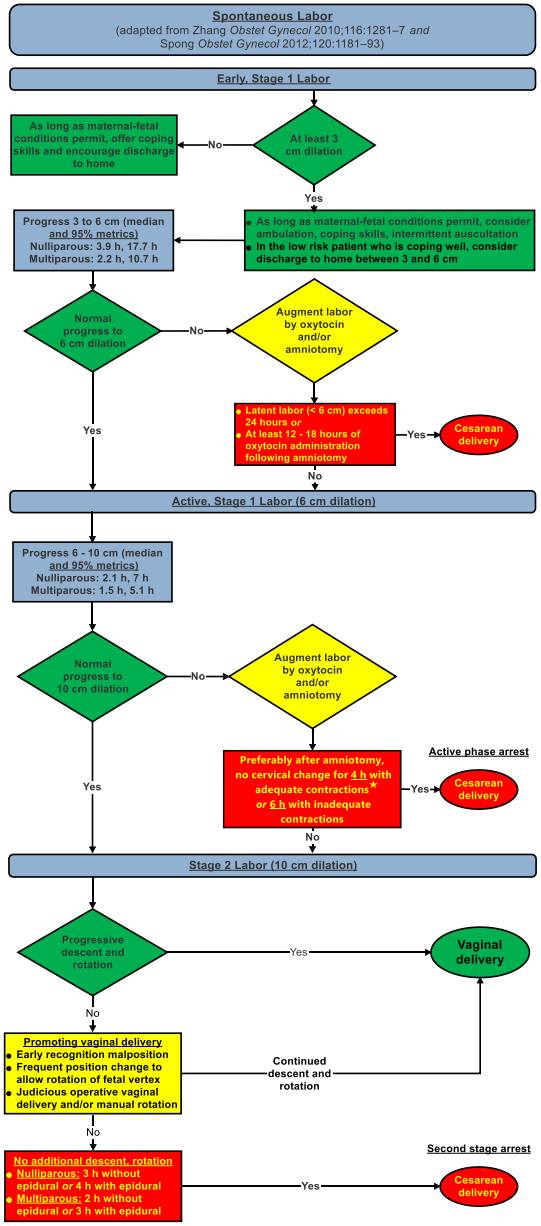
6 is the new 4!

FIRST STAGE OF LABOR

- A prolonged latent phase (>20 hours in nulliparous women and >14 hours in multiparous women) should not be an indication for cesarean delivery.
- Slow but progressive labor in the first stage should not be an indication for cesarean delivery.
- Cervical dilation of 6 cm should be considered the threshold for the active phase of most women in labor. Thus, <6 cm dilation, standards of active phase progress should not be applied.

Safe prevention of the primary cesarean delivery. Obstetric Care Consensus No. 1. American College of Obstetricians and Gynecologists. Obstet Gynecol 2014;123:693–711.

Follow along: You have a copy in front of you



Definition of abnormal labor:

	Nulliparous	Multiparous (informational only)
Early labor (3 to 6 cm)	Median 3.9 h	Median 2.2
	95% 17.7 h	95% 10.7 h
	Consider cesarean delivery when: • Less than 6 cm, preferably with ruptured membranes ***and*** • Length of latent labor exceeds 24 hours ***or*** • At least 12 - 18 hours of oxytocin administration following amniotomy	
Active labor (6 to 10 cm)	Median 2.1 h	Median 1.5 h
	95% 7 h	95% 5.1 h
	Active phase arrest • At least 6 cm, preferably with ruptured membranes *and* • 4 hours: no cervical change and adequate contractions* (greater than 200 Montevideo Units (MVU) or strong intensity contractions occurring every 3 minutes) *or* • 6 hours with Pitocin: no cervical change and inadequate contractions	
	Nulliparous	Multiparous (informational only)
Second stage arrest, no descent or rotation for at least:	3 h without epidural	2 h without epidural
	4 with epidural	3 without epidural

Zhang, *Obstet Gynecol* 2010;116:1281-7 and Spong, Obstet Gynecol 2012;120:1181-93)

Promoting vaginal delivery in the first stage of labor:

- Encourage ambulation, frequent position change, use of birthing ball, coping with labor pain, and delaying admission until at least 6 or more cm dilation
- Some methods to promote coping in labor include: hot and cold packs, sterile water injections, massage or pressure, hypnosis, TENS unit
- In the stable patient who is coping well and has cervical dilation between 3 and 6 cm, consider discharging this patient to home after a thorough discussion about the risks and benefits of early admission using the shared decision model discussed elsewhere in this tool kit
- In low-risk patients, consider IA (intermittent auscultation) for those patients without fetal heart rate abnormalities
- Unless medically required, allow adequate time for labor to progress in the first stage and defer diagnosis of active labor until 6 cm dilation
- As long as maternal-fetal conditions permit, cesarean delivery for a prolonged latent phase is not indicated when slow, progressive cervical change occurs
- The presence of moderate variability and accelerations (either spontaneous or stimulated) has little association with acidosis or neurological injury

Promoting vaginal delivery in the second stage of labor:

- If maternal-fetal conditions permit, allow passive descent and physiologic rest for the mother who does not have an urge to valsalva.
- Allow longer pushing times if neuraxial anesthesia present
- Use of maternal squat bar, side lying with an open pelvis, peanut ball, and frequent position change facilitates fetal rotation
- For slow progress, ask for bedside evaluation to diagnose possible fetal malposition; if present, consider rotation
- Consider judicious operative vaginal delivery in appropriate candidates
- Consider 3 to 4 open glottis pushing efforts for 6 - 8 seconds per contraction or pushing efforts with every other contraction when a category 2 electronic fetal monitoring tracing exists

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Society for Maternal-Fetal Medicine

OBSTETRIC CARE CONSENSUS

Box 1. Definition of Arrest of Labor in the First Stage

Spontaneous labor: More than or equal to 6 cm dilation with membrane rupture and one of the following:

- 4 hours or more of adequate contractions (eg, more than 200 Montevideo units)
- 6 hours or more of inadequate contractions and no cervical change

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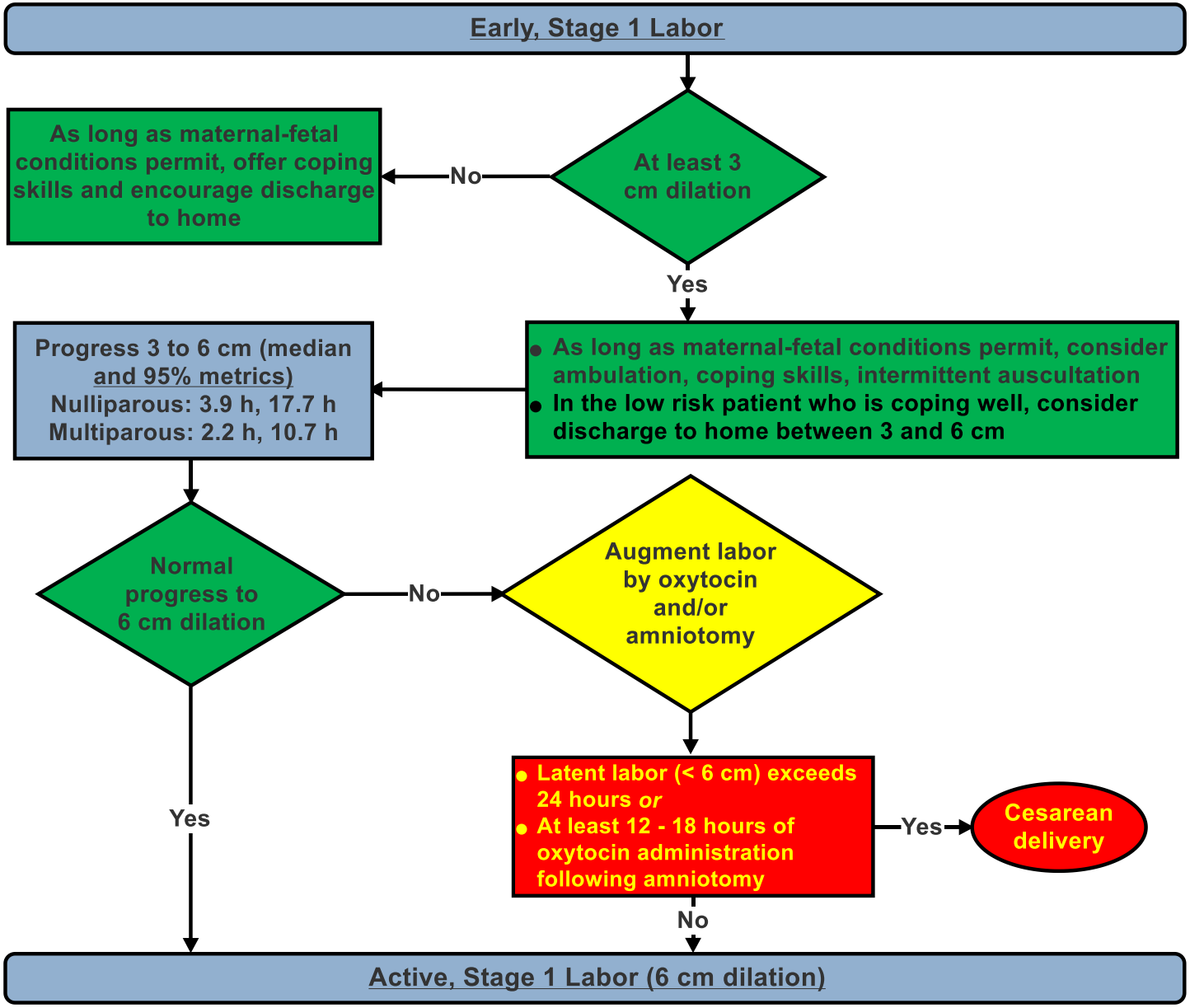
Early, Stage 1 Labor
At least 3 cm dilation
No
As long as maternal-fetal conditions permit, offer coping skills and encourage discharge to home
Yes
As long as maternal-fetal conditions permit, consider ambulation, coping skills, intermittent auscultation
In the low risk patient who is coping well, consider discharge to home between 3 and 6 cm
Progress 3 to 6 cm (median and 95% metrics)
Nulliparous: 3.9 h, 17.7 h
Multiparous: 2.2 h, 10.7 h
Normal progress to 6 cm dilation
No
Augment labor by oxytocin and/or amniotomy
Yes
Latent labor (< 6 cm) exceeds 24 hours or
At least 12 - 18 hours of oxytocin administration following amniotomy
Yes
Cesarean delivery
No
Active, Stage 1 Labor (6 cm dilation)

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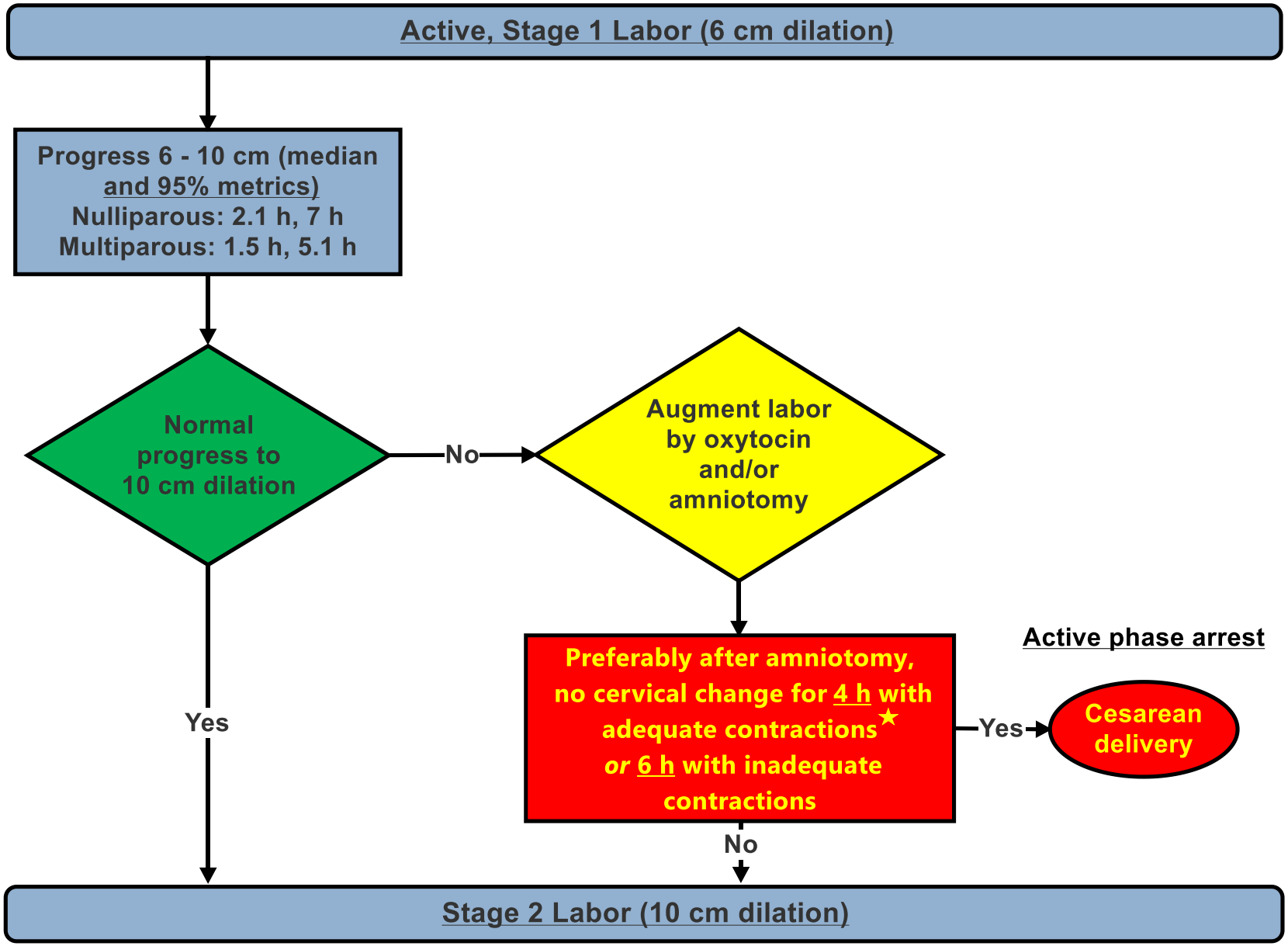
Promoting vaginal delivery in the first stage of labor:

- Encourage ambulation, frequent position change, use of birthing ball, coping with labor pain, and delaying admission until 6 or more cm dilation
- Methods to promote coping in labor include: hydrotherapy, hot & cold packs, sterile water injections, massage or pressure, hypnosis, TENS unit, oral nutrition.
- In the stable patient who is coping well and has cervical dilation between 3 to 6 cm, consider discharging the patient to home after a thorough discussion about risks and benefits of early admission using the shared decision model discussed elsewhere in this tool kit

Continued…

(Cont.) Promoting vaginal delivery in the first stage of labor:

- In low-risk patients, consider IA (intermittent auscultation) for those patients without fetal heart rate abnormalities
- Unless medically required, allow adequate time for labor to progress in the first stage and defer diagnosis of active labor until 6 cm dilation
- As long as maternal-fetal conditions permit, cesarean delivery for a prolonged latent phase is not indicated when slow, progressive cervical change occurs
- The presence of moderate variability and accelerations (either spontaneous or stimulated) has little association with acidosis or neurological injury


Active, Stage 1 Labor (6 cm dilation)
Progress 6 - 10 cm (median and 95% metrics)
Nulliparous: 2.1 h, 7 h
Multiparous: 1.5 h, 5.1 h
Normal progress to 10 cm dilation
No
Augment labor by oxytocin and/or amniotomy
Yes
Preferably after amniotomy, no cervical change for 4 h with adequate contractions★ or 6 h with inadequate contractions
Yes
Active phase arrest
Cesarean delivery
No
Stage 2 Labor (10 cm dilation)

Hormonal Physiology of Childbearing

- In environments where women feel stressed and fearful, stress hormones (catecholamines) can increase, reducing oxytocin and slowing the process of the first stage labor ("fight or flight" response)
- Continuous support, pain coping techniques, can reduce stress hormones

Movement in Labor

- Women who are upright during first stage have shorter labors, and are less likely to have an epidural, less likely to have a cesarean (Cochrane Review: Lawrence et al 2013).
- Women report less severe pain, more satisfaction, fewer interventions (Priddis et al 2011).

Peanut Ball

Recog/Prevent

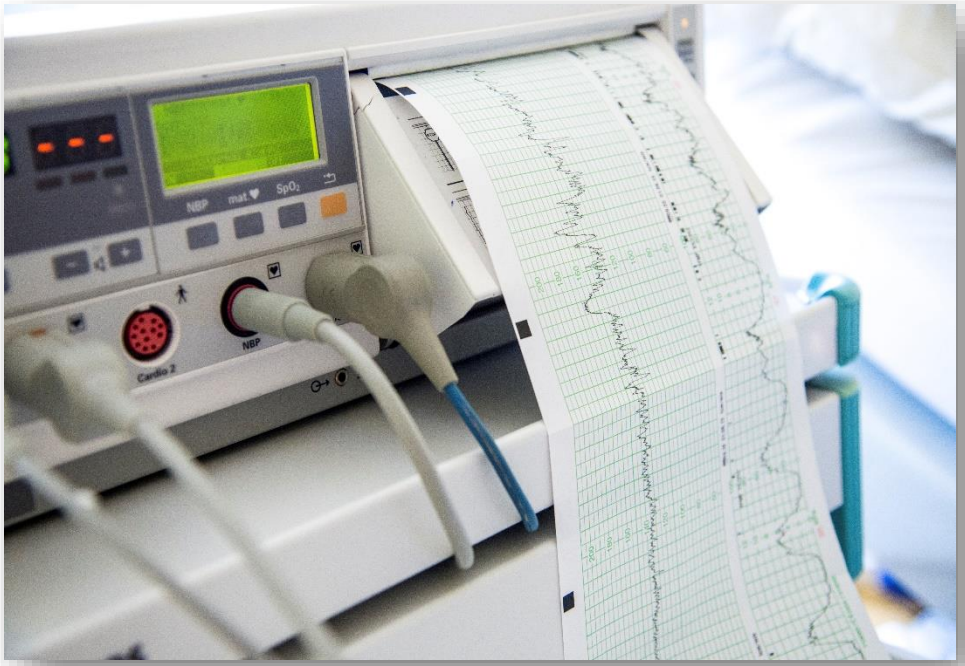
- Decreased length of labor
- Decreased CS rate in patients with epidurals

Tussey, C. M., Botsios, E., Gerkin, R. D., Kelly, L. A., Gamez, J., & Mensik, J. (2015). Reducing length of labor and cesarean surgery rate using a peanut ball for women laboring with an epidural. *The Journal of Perinatal Education*, *24*(1), 16-24. http://dx.doi.org/10.1891/1058-1243.24.L16

Implement Intermittent Monitoring for Low-risk Patients

Continuous monitoring:

- Increases the likelihood of cesarean
- Has not been shown to improve neonatal outcomes (e.g. reduce rates of CP)
- Restricts movement (and normal physiologic processes and coping)



- Potentially reduces nursing interaction/ labor support

IA Evidence

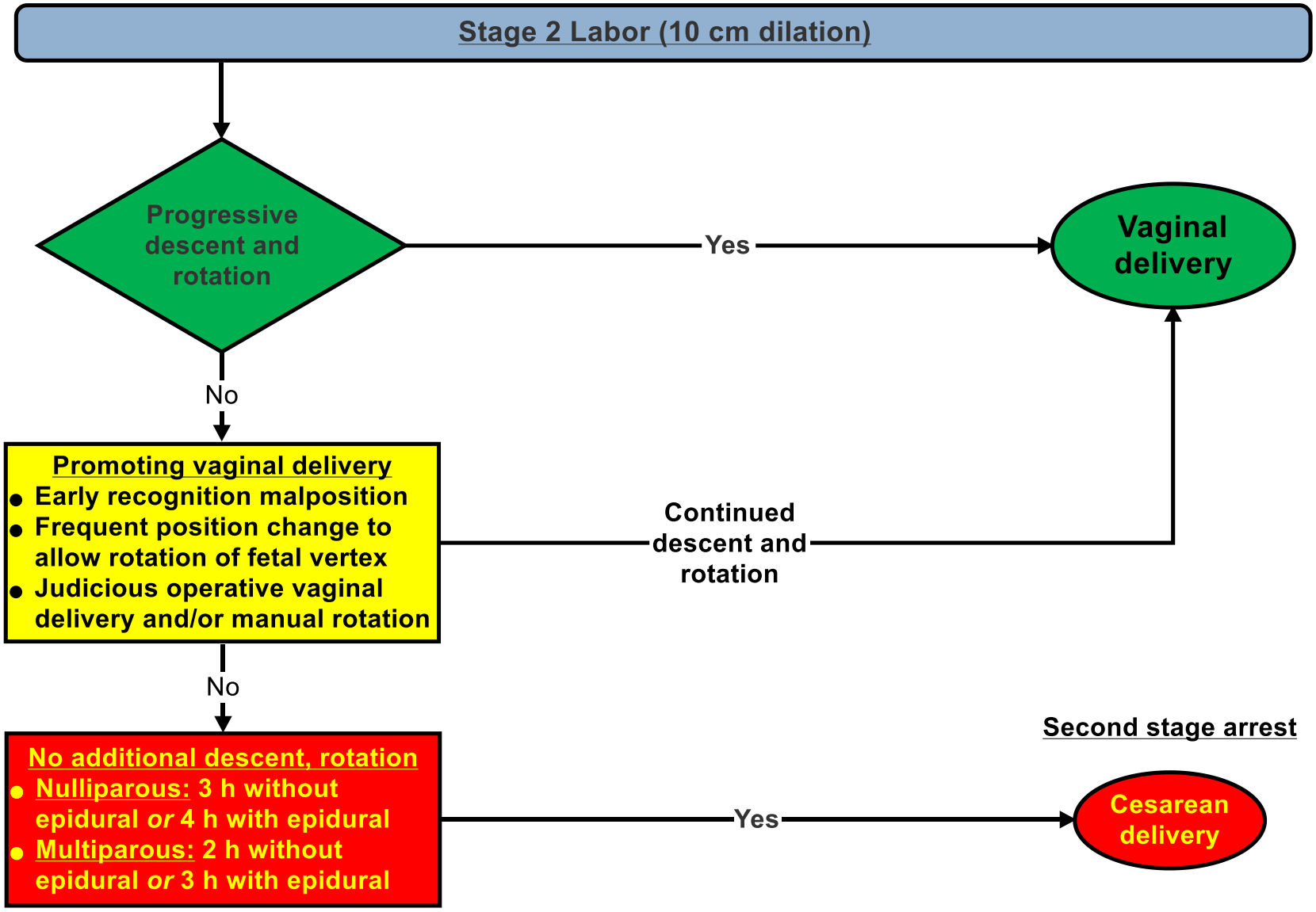
- Cochrane Review (13 RCTs, n>37,000)
  - Increased risk of C-S, V/FAVD
  - No difference in perinatal mortality, CP or Apgars <7 @ 5 mins.
  - Neonatal seizures rare, but slightly more in IA group.
- "Given that available data do not clearly support EFM over IA, either option is acceptable in a patient without complicatios." ACOG, 2009
- "IA is the preferred method of fetal surveillance for healthy low risk women in labor" SOGC

IA… When and Where?

- **Per ACOG and AWHONN**
  - Latent labor q 1 hour
  - Active labor q 30 minutes
  - Second stage q 15 minutes
- **Listen Before**
  - Administration of Narcotics
  - AROM
  - Transfer or discharge
- **Listen After**
  - Vaginal Exam
  - SROM/AROM
  - Abnormal uterine activity
  - Abnormal vaginal bleed
- **Where?**
  - Walking / Standing
  - In the shower/tub
  - On the ball
  - In the bed
  - With a mouse, in a house, on chair…Anywhere!

Second Stage

- Adverse neonatal outcomes have not been associated with duration of the second stage of labor.
- Instrument delivery can reduce the need for cesarean.


Stage 2 Labor (10 cm dilation)
Progressive descent and rotation
Yes
Vaginal delivery
No
Promoting vaginal delivery
Early recognition malposition
Frequent position change to allow rotation of fetal vertex
Judicious operative vaginal delivery and/or manual rotation
Continued descent and rotation
No
Second stage arrest
No additional descent, rotation
Nulliparous: 3 h without epidural or 4 h with epidural
Multiparous: 2 h without epidural or 3 h with epidural
Yes
Cesarean delivery

Promoting vaginal delivery in the second stage of labor:

- If maternal-fetal conditions permit, then allow passive descent and physiologic rest for the mother who does not have an urge to valsalva.
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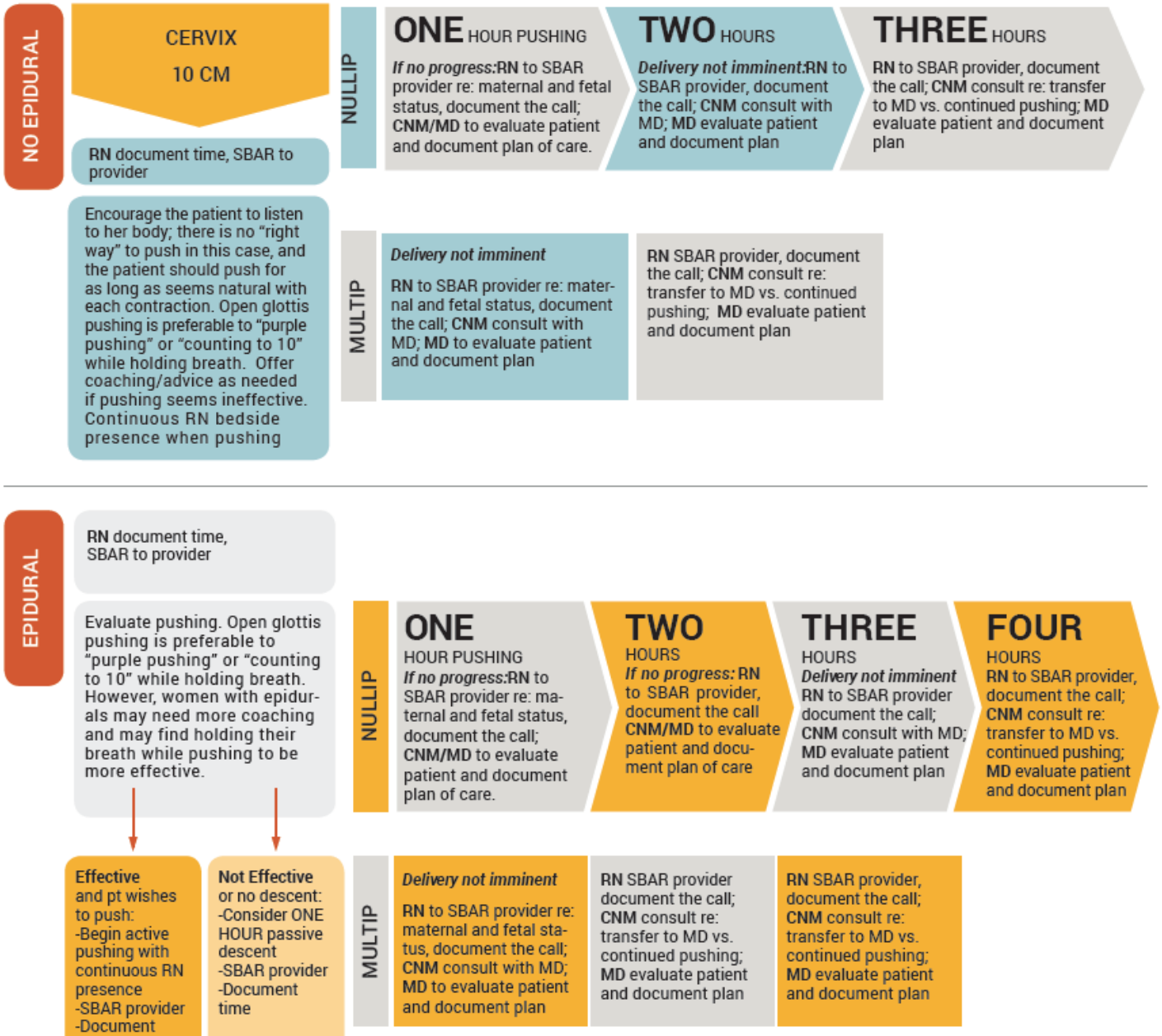

CMQCC
California Maternal Quality Care Collaborative

Labor Support Skills to Promote Vaginal Birth

2-Day Regional Workshops

- Target audience:
  - PROVIDE hospital **L&D staff nurses, clinical nurse specialists, educators, providers**
- Content:
  - Promoting spontaneous labor
  - Promoting first stage
  - Comfort for women
  - Second stage support
  - Fetal well-being assessment

Research says Yes

Edmonds et al. JOGNN 2017

- Retrospective analysis of 3,031 NTSV births and 72 RNs were included in the study
- Tertiary care hospital
- Threefold variation in cesarean rates across L&D nurses
- Ranged from 8.3% to 48%
- There were no differences in the gestational age, birth weight, or Apgar scores of the births amongst the four quartiles of nurses.

The nurse assigned to a patient may influence the likelihood of cesarean birth

- Nurses affect the clinical behaviors and labor management decisions of physicians
- Nurses' beliefs about birth
- How much time nurse spends providing labor support vs other clinical duties
- Skill and education level

"Nurses spend more time at the bedside than any other clinician"

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QUESTIONS?