Interpretation of CTG

Classification			Baseline	Variability	Decelerations	Accelerations	Actions
Normal	***Low probability*** *fetal compromise*	GREEN	110–160 bpm	6–25 bpm	Nil	15 bpm[1] for 15 seconds	Nil
Abnormal[3,4]	***Unlikely*** *fetal compromise*	BLUE	100–109 bpm		Early or Variable	Absent[1]	Continue CTG
	May be *fetal compromise*	YELLOW	> 160 bpm or Rising	3–5 bpm for > 30 minutes	Complicated variable[2] or Late		Correct reversible causes
	Likely *fetal compromise*	RED	≥ 2 YELLOW features = RED				Persistent YELLOW = RED
			< 100 bpm for > 5 minutes	< 3 bpm for > 30 minutes or Sinusoidal			FBS or Expedite birth

References:
Royal Australian and New Zealand College of Obstetricians and Gynaecologists. Intrapartum fetal surveillance clinical guideline. 2014.
National Institute of Health and Care Excellence. Interpretation of cardiotocograph traces. Clinical guideline no. 190. 2017.

NOTES:
1. Significance of accelerations/no accelerations in an otherwise normal CTG is unclear
2. Complicated variable features[2]:
   - Slow return to baseline FHR after the end of the contraction
   - Large amplitude (> 60 bpm) and/or long duration (> 60 seconds)
   - Presence of post deceleration smooth overshoots
3. All abnormal CTGs require further evaluation and management considering:
   - Full clinical picture
   - Identification of reversible causes
   - Initiation of appropriate action including FBS and expediting birth if abnormality persist
4. Follow local escalation procedures to senior midwifery and obstetric staff when CTG is abnormal

bpm beats per minute; **>** greater than; **≥** greater than or equal to; **<** less than; **CTG** cardiotocograph; **FBS** fetal blood sample; **FHR** fetal heart rate

Flowchart: Flowchart: F20.15-2-V5-R25

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