

## Case study 1:

Please answer the following questions: Perfect! You scored 6 out of 6 correct.

<p>1. What is the baseline of the FHT?</p> <p><input type="radio"/> 120</p> <p><input type="radio"/> 125</p> <p><input checked="" type="radio"/> 130</p> <p><input type="radio"/> 135</p> <p><input type="radio"/> 140</p>	<p><b>Correct.</b> Remember, the baseline is the average heart rate rounded to the nearest five bpm.</p>
<p>2. Describe the variability.</p> <p><input type="radio"/> Absent.</p> <p><input checked="" type="radio"/> Minimal.</p> <p><input type="radio"/> Moderate.</p> <p><input type="radio"/> Marked.</p>	<p><b>Correct.</b> Minimal variability should be very worrisome in the clinical context, though it may be blunted by both magnesium sulfate and betamethasone.</p>
<p>3. Are there accelerations present?</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p> <p><input type="radio"/> Yes, and the strip is reactive.</p>	<p><b>Correct.</b> There are no accelerations present.</p>
<p>4. Are there decelerations present?</p> <p><input type="radio"/> None.</p> <p><input type="radio"/> Variable.</p> <p><input type="radio"/> Early.</p> <p><input checked="" type="radio"/> Late.</p> <p><input type="radio"/> Prolonged.</p>	<p><b>Correct.</b> There are repetitive late decelerations which are ominous in this setting.</p>
<p>5. Are contractions present?</p> <p><input type="radio"/> None.</p> <p><input type="radio"/> Occasional.</p> <p><input checked="" type="radio"/> Regular.</p> <p><input type="radio"/> Hyperstimulation.</p>	<p><b>Correct.</b> Though subtle, her contractions are every 3-4 minutes.</p>
<p>6. Is this FHT reassuring?</p> <p><input type="radio"/> Yes. It is reassuring and reactive.</p> <p><input type="radio"/> It is overall reassuring, but not reactive.</p> <p><input checked="" type="radio"/> This tracing is nonreassuring and requires intervention.</p>	<p><b>Correct.</b> This tracing requires immediate intervention.</p>
<p>1. Turn patient to left, lateral side.</p> <p><input type="radio"/> No.</p> <p><input checked="" type="radio"/> Yes.</p>	<p><b>Correct.</b> This relieves compression on the IVC increasing cardiac output and therefore uterine perfusion.</p>
<p>2. Change maternal position to various positions until fetal improvement.</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p><b>Correct.</b> This only useful with cord compression of which there is no evidence.</p>
<p>3. Fluid bolus, lower maternal head.</p> <p><input type="radio"/> No.</p> <p><input checked="" type="radio"/> Yes.</p>	<p><b>Correct.</b> These efforts may help improve maternal cardiac output and therefore uterine perfusion, though this could precipitate pulmonary edema and should be used cautiously.</p>
<p>4. Vasopressor (e.g. Ephedrine).</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p><b>Correct.</b> There is no evidence of maternal hypotension.</p>
<p>5. Supplemental Oxygen.</p> <p><input type="radio"/> No.</p> <p><input checked="" type="radio"/> Yes.</p>	<p><b>Correct.</b> Though controversial, O<sub>2</sub> may be of benefit to the fetus in this case.</p>
<p>6. Stop Magnesium Sulfate.</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p><b>Correct.</b> Stopping magnesium here will not benefit the fetus and may harm the mother.</p>
<p>7. Give tocolytic (e.g. Terbutaline).</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p><b>Correct.</b> There are rarely times when this will prove beneficial and there is no evidence of hypertonus.</p>
<p>8. Perform vaginal exam.</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p><b>Correct.</b> Though not contraindicated, this is not likely to be beneficial.</p>
<p>9. Perform emergent Cesarean delivery or operative vaginal delivery if the possible</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p><b>Correct.</b> Intrauterine resuscitation should be attempted first.</p>
<p>10. Perform fetal scalp stimulation.</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p><b>Correct.</b> Fetal scalp stimulation should never be performed in the presence of late decelerations.</p>

Submit Answers

Please answer below: Perfect! You scored 2 out of 2 correct.

<p>1. What is your current assessment?</p> <p><input type="radio"/> Improved from before and now overall reassuring.</p> <p><input checked="" type="radio"/> The same or possibly worse and persistently nonreassuring.</p>	<p><b>Correct.</b> In spite of the previous interventions, this tracing is as bad and possibly worse than before.</p>
<p>2. Which of the following is appropriate at this time.</p> <p><input type="radio"/> No further intervention required.</p> <p><input type="radio"/> Continue the interventions already being undertaken.</p> <p><input checked="" type="radio"/> Deliver immediately by Cesarean delivery.</p>	<p><b>Correct.</b> After attempting intrauterine resuscitation and failing, urgent delivery is indicated.</p>

## Case Study 2:

Please answer the following questions: Perfect! You scored 6 out of 6 correct.

<p>1. What is the baseline of the FHT?</p> <p><input type="radio"/> 120</p> <p><input type="radio"/> 125</p> <p><input type="radio"/> 130</p> <p><input checked="" type="radio"/> 135</p> <p><input type="radio"/> 140</p>	<p>Correct. Remember, the baseline is the average heart rate rounded to the nearest five bpm.</p>
<p>2. Describe the variability.</p> <p><input type="radio"/> Absent.</p> <p><input type="radio"/> Minimal.</p> <p><input checked="" type="radio"/> Moderate.</p> <p><input type="radio"/> Marked.</p>	<p>Correct. Moderate variability here represents a well-oxygenated fetus in spite of the concurrent decelerations.</p>
<p>3. Are there accelerations present?</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p> <p><input type="radio"/> Yes, and the strip is reactive.</p>	<p>Correct. There are no accelerations present.</p>
<p>4. Are there decelerations present?</p> <p><input type="radio"/> None.</p> <p><input checked="" type="radio"/> Variable.</p> <p><input type="radio"/> Early.</p> <p><input type="radio"/> Late.</p> <p><input type="radio"/> Prolonged.</p>	<p>Correct. There are recurrent variable down to 70 bpm with each contraction.</p>
<p>5. Are contractions present?</p> <p><input type="radio"/> None.</p> <p><input type="radio"/> Occasional.</p> <p><input checked="" type="radio"/> Regular.</p> <p><input type="radio"/> Hyperstimulation.</p>	<p>Correct. Her contractions are every 3 minutes.</p>
<p>6. Is this FHT reassuring?</p> <p><input type="radio"/> Yes. It is reassuring and reactive.</p> <p><input type="radio"/> It is overall reassuring, but not reactive.</p> <p><input checked="" type="radio"/> This tracing is nonreassuring and requires intervention.</p>	<p>Correct. This tracing requires immediate intervention.</p>

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### Case 2 Interventions

Which of the following interventions are appropriate in this context?

<p>1. Turn patient to left, lateral side.</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p>Correct. The correct approach is to rotate through various positions until cord compression is relieved. This may be left, lateral, but not necessarily.</p>
<p>2. Change maternal position to various positions until fetal improvement.</p> <p><input type="radio"/> No.</p> <p><input checked="" type="radio"/> Yes.</p>	<p>Correct. This is useful with cord compression of which the variable decels may represent.</p>
<p>3. Thigh flexion, lower maternal head.</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p>Correct. These efforts may help improve maternal cardiac output and therefore uterine perfusion, though this could precipitate pulmonary edema and should be used cautiously.</p>
<p>4. Vasopressors (e.g. Ephedrine).</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p>Correct. There is no evidence of maternal hypotension.</p>
<p>5. Supplemental Oxygen.</p> <p><input type="radio"/> No.</p> <p><input checked="" type="radio"/> Yes.</p>	<p>Correct. Though controversial, O<sub>2</sub> may be of benefit to the fetus in this case.</p>
<p>6. Start amnioinfusion.</p> <p><input type="radio"/> No.</p> <p><input checked="" type="radio"/> Yes.</p>	<p>Correct. An amnioinfusion is indicated for recurrent severe variable decelerations.</p>
<p>7. Give tocolytic (e.g. Terbutaline).</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p>Correct. There are rarely times when this will prove beneficial and there is no evidence of hypotension.</p>
<p>8. Perform vaginal exam.</p> <p><input type="radio"/> No.</p> <p><input checked="" type="radio"/> Yes.</p>	<p>Correct. An exam may reveal the presence of a prolapsed cord and will allow the physician to know whether operative delivery is possible.</p>
<p>9. Perform expeditious (emergent) delivery (operative vaginal delivery or Cesarean delivery)</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p>Correct. Intrauterine resuscitation should be attempted first.</p>
<p>10. Perform fetal scalp stimulation.</p> <p><input checked="" type="radio"/> No.</p> <p><input type="radio"/> Yes.</p>	<p>Correct. Fetal scalp stimulation should never be performed in the presence of recurrent variable decelerations.</p>

### Submit Answers

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Please answer below: Perfect! You scored 2 out of 2 correct.

<p>1. What is your current assessment?</p> <p><input type="radio"/> Improved from before and now overall reassuring.</p> <p><input checked="" type="radio"/> The same or possibly worse and persistently nonreassuring.</p>	<p>Correct. In spite of the previous interventions, this tracing is as bad and possibly worse than before.</p>
<p>2. Which of the following is appropriate at this time.</p> <p><input type="radio"/> No further intervention required.</p> <p><input checked="" type="radio"/> Immediately try new interventions for this change in the tracing.</p> <p><input type="radio"/> Deliver immediately by Cesarean delivery.</p>	<p>Correct. After attempting intrauterine resuscitation and failing for this new pattern, urgent delivery is indicated.</p>

### Submit Answers

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## Case study 3:

Please answer the following questions: Perfect! You scored 6 out of 6 correct.

1. What is the baseline of the FHR?	<input type="radio"/> 100 <input type="radio"/> 105 <input type="radio"/> 130 <input type="radio"/> 135 <input checked="" type="radio"/> 140	Correct. Remember, the baseline is the average heart rate rounded to the nearest five bpm.
2. Describe the variability.	<input type="radio"/> Absent. <input checked="" type="radio"/> Minimal. <input type="radio"/> Moderate. <input type="radio"/> Marked.	Correct. Minimal variability must be interpreted in context with the clinical picture.
3. Are there accelerations present?	<input checked="" type="radio"/> No. <input type="radio"/> Yes. <input type="radio"/> Yes, and the strip is reactive.	Correct. There are no accelerations present.
4. Are there decelerations present?	<input type="radio"/> None. <input type="radio"/> Variable. <input checked="" type="radio"/> Early. <input type="radio"/> Late. <input type="radio"/> Prolonged.	Correct. There are repetitive early decelerations which are not worrisome in and of themselves.
5. Are contractions present?	<input type="radio"/> None. <input type="radio"/> Occasional. <input checked="" type="radio"/> Regular. <input type="radio"/> Hyperstimulation.	Correct. Her contractions are every 2 minutes.
6. Is this FHR reassuring?	<input type="radio"/> Yes. It is reassuring and reactive. <input checked="" type="radio"/> It is overall reassuring, but not reactive. <input type="radio"/> The tracing is nonreassuring and requires intervention.	Correct. This tracing overall is reassuring.

### Case 3 Interventions

Which of the following interventions are appropriate in this context?

1. Turn patient to left, lateral side.	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. There is no evidence of poor uterine perfusion.
2. Change maternal position to various positions until fetal improvement.	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. This only useful with cord compression of which there is no evidence.
3. Hold baby, lower maternal head.	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. There is no evidence of maternal hypotension.
4. Vasopressor (e.g. Ephedrine).	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. There is no evidence of maternal hypotension.
5. Supplemental Oxygen.	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. O2 supplementation is of no benefit here.
6. Stop Magnesium Sulfate.	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. Analgesia is indicated only to treat severe variables.
7. Give tocolytic (e.g. Terbutaline).	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. There are rarely times when this will prove beneficial and there is no evidence of uterine hypertonus.
8. Perform vaginal exam.	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. Though not contraindicated, this is not likely to be beneficial.
9. Perform expeditious (emergent) delivery (operative vaginal delivery or Cesarean delivery)	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. There is no evidence of fetal distress requiring emergent delivery.
10. Perform fetal scalp stimulation.	<input checked="" type="radio"/> No. <input type="radio"/> Yes.	Correct. There is no indication to perform scalp stimulation here.

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Please answer below: Perfect! You scored 2 out of 2 correct.

1. What is your current assessment?	<input checked="" type="radio"/> Overall reassuring. <input type="radio"/> The same or possibly worse and nonreassuring.	Correct. The tracing remains overall reassuring, but now with variable decelerations.
2. Which of the following is appropriate at this time.	<input type="radio"/> No further intervention required. <input checked="" type="radio"/> Reassure cervix and anticipate vaginal delivery. <input type="radio"/> Deliver immediately by Cesarean delivery.	Correct. If delivery does not occur soon and this pattern persists, then new interventions may be appropriate.

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## Case study 4:

Please answer the following questions: Perfect! You scored 6 out of 6 correct.

<p>1. What is the baseline of the FHT?</p> <p><input type="radio"/> 140 <input type="radio"/> 155 <input type="radio"/> 160 <input checked="" type="radio"/> 165 <input type="radio"/> 170</p>	<p>Correct. Remember, the baseline is the average heart rate rounded to the nearest five bpm.</p>
<p>2. Describe the variability.</p> <p><input type="radio"/> Absent. <input checked="" type="radio"/> Minimal. <input type="radio"/> Moderate. <input type="radio"/> Marked.</p>	<p>Correct.</p>
<p>3. Are there accelerations present?</p> <p><input checked="" type="radio"/> No. <input type="radio"/> Yes. <input type="radio"/> Yes, and the strip is reactive.</p>	<p>Correct. There are no accelerations present.</p>
<p>4. Are there decelerations present?</p> <p><input type="radio"/> None. <input checked="" type="radio"/> Variable. <input type="radio"/> Early. <input type="radio"/> Late. <input type="radio"/> Prolonged.</p>	<p>Correct. There are variable decelerations present.</p>
<p>5. Are contractions present?</p> <p><input type="radio"/> None. <input type="radio"/> Occasional. <input type="radio"/> Regular. <input checked="" type="radio"/> Hyperstimulation.</p>	<p>Correct. Yes, there are more than 5 contractions in 10 minutes, which defines hyperstimulation.</p>
<p>6. Is this FHT reassuring?</p> <p><input type="radio"/> Yes, it is reassuring and reactive. <input type="radio"/> It is overall reassuring, but not reactive. <input checked="" type="radio"/> This tracing is nonreassuring and requires intervention.</p>	<p>Correct. This tracing requires immediate intervention.</p>

### Case 4 Interventions

Think of the following interventions as appropriate in this context?

<p>1. Turn patient to left, lateral side.</p> <p><input type="radio"/> No. <input checked="" type="radio"/> Yes.</p>	<p>Correct. This relieves compression on the IVC increasing cardiac output and therefore uterine perfusion.</p>
<p>2. Change maternal position to various positions until fetal improvement.</p> <p><input checked="" type="radio"/> No. <input type="radio"/> Yes.</p>	<p>Correct. This is useful with cord compression but the main problem is hypoperfusion with hyperstimulation.</p>
<p>3. Field helmet, lower maternal head.</p> <p><input type="radio"/> No. <input checked="" type="radio"/> Yes.</p>	<p>Correct. These efforts may help improve maternal cardiac output and therefore uterine perfusion.</p>
<p>4. Vasopressor (e.g. Ephedrine).</p> <p><input checked="" type="radio"/> No. <input type="radio"/> Occasional. <input type="radio"/> Yes.</p>	<p>Correct. There is no evidence of maternal hypotension.</p>
<p>5. Supplemental Oxygen.</p> <p><input type="radio"/> No. <input checked="" type="radio"/> Yes.</p>	<p>Correct. Though controversial, O2 may be of benefit in the fetus in this case.</p>
<p>6. Start amnioinfusion.</p> <p><input checked="" type="radio"/> No. <input type="radio"/> Yes.</p>	<p>Correct. Amnioinfusion is indicated only for the treatment of acute variables.</p>
<p>7. Give tocolytic (e.g. Terbutaline).</p> <p><input type="radio"/> No. <input checked="" type="radio"/> Yes.</p>	<p>Correct. If the tachycardia is taken as evidence of fetal distress, then giving a tocolytic may lessen the resolution of the hyperstimulation.</p>
<p>8. Perform vaginal exam.</p> <p><input type="radio"/> No. <input checked="" type="radio"/> Yes.</p>	<p>Correct. Though not contraindicated, this is not likely to be beneficial.</p>
<p>9. Perform expeditious (emergent) delivery (operative vaginal delivery or Cesarean delivery)</p> <p><input checked="" type="radio"/> No. <input type="radio"/> Yes.</p>	<p>Correct. Immediate cesarean should be attempted first.</p>
<p>10. Perform fetal scalp stimulation.</p> <p><input checked="" type="radio"/> No. <input type="radio"/> Yes.</p>	<p>Correct. Fetal scalp stimulation should never be performed in the presence of tachycardia.</p>

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Please answer below: Perfect! You scored 2 out of 2 correct.

<p>1. What is your current assessment?</p> <p><input checked="" type="radio"/> Improved from before and now overall reassuring. <input type="radio"/> The same or possibly worse and persistently nonreassuring.</p>	<p>Correct. The tracing has improved with correction of the hyperstimulation.</p>
<p>2. Which of the following is appropriate at this time.</p> <p><input checked="" type="radio"/> No further interventions required. <input type="radio"/> Continue the interventions already being undertaken. <input type="radio"/> Deliver immediately by Cesarean delivery.</p>	<p>Correct. The tracing is now overall reassuring and labor should be allowed to progress.</p>

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## Case study 5:

Please answer the following questions: Perfect! You scored 6 out of 6 correct.

<p>1. What is the baseline of the FHT?</p> <p><input type="radio"/> 145 <input type="radio"/> 170 <input type="radio"/> 175 <input checked="" type="radio"/> 185</p>	<p>Correct. Remember, the baseline is the average heart rate rounded to the nearest five bpm.</p>
<p>2. Describe the variability.</p> <p><input type="radio"/> Absent. <input type="radio"/> Minimal. <input checked="" type="radio"/> Moderate. <input type="radio"/> Marked.</p>	<p>Correct. The variability is moderate.</p>
<p>3. Are there accelerations present?</p> <p><input checked="" type="radio"/> No. <input type="radio"/> Yes. <input type="radio"/> Yes, and the strip is reactive.</p>	<p>Correct. There are no accelerations present.</p>
<p>4. Are there decelerations present?</p> <p><input type="radio"/> None. <input checked="" type="radio"/> Variable. <input type="radio"/> Early. <input type="radio"/> Late. <input type="radio"/> Prolonged.</p>	<p>Correct. There is an occasional variable deceleration.</p>
<p>5. Are contractions present?</p> <p><input type="radio"/> None. <input type="radio"/> Occasional. <input checked="" type="radio"/> Regular. <input type="radio"/> Hyperstimulation.</p>	<p>Correct. Her contractions are every 3 minutes.</p>
<p>6. Is this FHT reassuring?</p> <p><input type="radio"/> Yes, it is reassuring and reactive. <input type="radio"/> It is overall reassuring, but not reactive. <input checked="" type="radio"/> This tracing is nonreassuring and requires intervention.</p>	<p>Correct. This tracing requires immediate intervention.</p>

## Case 5 Interventions

Which of the following interventions are appropriate in this context?

1. Turn patient to left, lateral side. <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> If the tachycardia is due to maternal fever, then there is no evidence of uteroplacental insufficiency.
2. Change maternal position to various positions until fetal improvement. <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> This only needs to be used in conjunction of which there is significant evidence.
3. Fluid bolus, lower maternal head. <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> Again, we are not treating hyperperfusion or uteroplacental insufficiency.
4. Vasopressor (e.g. Ephedrine). <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> There is no evidence of maternal hypotension.
5. Supplemental Oxygen. <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> O <sub>2</sub> is likely of no benefit to the fetus in this case.
6. Start antibiotic coverage for chorioamnionitis. <input type="radio"/> No <input checked="" type="radio"/> Yes	<b>Correct.</b> Penicillin alone is not adequate for chorioamnionitis. She should also be given acetylsalicylic acid.
7. Give tocolytic (e.g. Terbutaline). <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> There are rarely times when this will prove beneficial and there is no evidence of hypertension.
8. Perform vaginal exam. <input type="radio"/> No <input checked="" type="radio"/> Yes	<b>Incorrect.</b> Though not contraindicated, this is not likely to be beneficial and frequent exams may cause or exacerbate infection.
9. Perform expeditious (emergent) delivery (operative vaginal delivery or Cesarean delivery). <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> Intrauterine resuscitation and treatment of the fever should be attempted first.
10. Perform fetal scalp stimulation. <input checked="" type="radio"/> No <input type="radio"/> Yes	<b>Correct.</b> Fetal scalp stimulation should never be performed in the presence of tachycardia.

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Please answer below: Perfect! You scored 2 out of 2 correct.

1. What is your current assessment? <input type="radio"/> Improved from before and now overall reassuring. <input checked="" type="radio"/> The same or possibly worse and potentially nonreassuring.	<b>Correct.</b> In spite of the previous intervention, the tracing is no better and possibly worse than before.
2. Which of the following is appropriate at this time. <input type="radio"/> No further intervention required. <input type="radio"/> Continue the interventions already being undertaken. <input checked="" type="radio"/> Deliver immediately by Cesarean delivery.	<b>Correct.</b> After attempting intrauterine resuscitation and failing, urgent delivery is indicated.

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