

Pretest

1. What is the target range for normal ETCO_2 in an intubated TBI patient: _____
2. The main goal of prehospital management of a TBI is:
 - a. Keep blood sugar ≥ 90
 - b. Maintain SBP ≤ 150
 - c. Prevent secondary brain injury
 - d. Provide positive pressure ventilation
3. At what rate you should ventilate an intubated adult with a TBI? _____
4. In all TBI patients, the minimum pulse oximeter reading should be:
 - a. $\geq 90\%$
 - b. $\geq 95\%$
 - c. $\geq 85\%$
 - d. $\geq 80\%$
5. When managing an adult TBI patient the SBP should be maintained at:
 - a. $\geq 60\text{mmHg}$
 - b. $\geq 100\text{ mmHg}$
 - c. $\geq 120\text{ mm Hg}$
 - d. $\geq 90\text{ mmHg}$
6. When managing a 5 year old TBI patient the SBP should be maintained at:
 - a. $\geq 60\text{ mmHg}$
 - b. $\geq 70\text{ mmHg}$
 - c. $\geq 80\text{ mmHg}$
 - d. $\geq 90\text{ mmHg}$
7. Hyperventilation (decreasing ETCO_2) will cause which of the following? (circle all that apply):
 - a. Cerebral artery vasoconstriction
 - b. Increased secondary injury
 - c. Decreased cerebral perfusion
 - d. All of the above
8. The effect of a *single* episode of hypoxia in the TBI patient results in:
 - a. Increased morbidity and mortality
 - b. Bradycardia
 - c. Hypotension
 - d. No impact on neurological outcome
9. At what rate should an intubated 5 year old with a TBI be ventilated? (circle all that apply):
 - a. 10 bpm
 - b. 15 bpm
 - c. 20 bpm
 - d. To keep ETCO_2 35-45
10. If the EtCO_2 in an intubated patient falls below 35, what is the most likely cause?
 - a. Hypoventilation
 - b. Hypoxia
 - c. Acidosis
 - d. Hyperventilation

Post test

1. What is the target range for normal ETCO_2 in an intubated TBI patient: _____
2. The main goal of prehospital management of a TBI is:
 - a. Keep blood sugar ≥ 90
 - b. Maintain SBP ≤ 150
 - c. Prevent secondary brain injury
 - d. Provide positive pressure ventilation
3. At what rate you should ventilate an intubated adult with a TBI? _____
4. In all TBI patients, the minimum pulse oximeter reading should be:
 - a. $\geq 90\%$
 - b. $\geq 95\%$
 - c. $\geq 85\%$
 - d. $\geq 80\%$
5. When managing an adult TBI patient the SBP should be maintained at:
 - a. $\geq 60\text{mmHg}$
 - b. $\geq 100\text{ mmHg}$
 - c. $\geq 120\text{ mm Hg}$
 - d. $\geq 90\text{ mmHg}$
6. When managing a 5 year old TBI patient the SBP should be maintained at:
 - a. $\geq 60\text{ mmHg}$
 - b. $\geq 70\text{ mmHg}$
 - c. $\geq 80\text{ mmHg}$
 - d. $\geq 90\text{ mmHg}$
7. Hyperventilation (decreasing ETCO_2) will cause which of the following? (circle all that apply):
 - a. Cerebral artery vasoconstriction
 - b. Increased secondary injury
 - c. Decreased cerebral perfusion
 - d. All of the above
8. The effect of a *single* episode of hypoxia in the TBI patient results in:
 - a. Increased morbidity and mortality
 - b. Bradycardia
 - c. Hypotension
 - d. No impact on neurological outcome
9. At what rate should an intubated 5 year old with a TBI be ventilated? (circle all that apply):
 - a. 10 bpm
 - b. 15 bpm
 - c. 20 bpm
 - d. To keep ETCO_2 35-45
10. If the EtCO_2 in an intubated patient falls below 35, what is the most likely cause?
 - a. Hypoventilation
 - b. Hypoxia
 - c. Acidosis
 - d. Hyperventilation

EPIC Pre/Post-Test Answer Key

(Note: pre and post tests are identical)

1. What is the target range for normal ETCO₂ in an intubated TBI patient: **40mmhg**
(range 35-45 mmHg)
2. The main goal of prehospital management of a TBI is:
 - a. Keep blood sugar ≥ 90
 - b. Maintain SBP < 150
 - c. **Prevent secondary brain injury**
 - d. Provide Positive Pressure Ventilation
3. What is the rate you should ventilate an intubated adult with a TBI? **10 BPM**
4. In all TBI patients, the minimum pulse oximeter reading should be:
 - a. **$\geq 90\%$, (keep as high as possible)**
 - b. $\geq 95\%$
 - c. $\geq 85\%$
 - d. $\geq 80\%$
5. When managing an adult TBI patient the SBP should be maintained at:
 - a. $\geq 60\text{mmHg}$
 - b. $\geq 100\text{ mmHg}$
 - c. $\geq 120\text{ mm Hg}$
 - d. **$\geq 90\text{ mmHg}$**
6. When managing a 5 year old TBI patient the SBP should be maintained at:
 - a. $\geq 60\text{ mmHg}$
 - b. $\geq 70\text{ mmHg}$
 - c. **$\geq 80\text{ mmHg}$**
 - d. $\geq 90\text{ mmHg}$
7. Decreasing CO₂ will cause which of the following (Circle all that apply)
 - a. **Cerebral artery vasoconstriction**
 - b. **Increased secondary injury**
 - c. **Decreased cerebral perfusion**
 - d. **All of the Above**
8. The effect of a *single* episode of hypoxia results in
 - a. **Increased morbidity and mortality**
 - b. Bradycardia
 - c. Hypotension
 - d. No impact on neurological outcome
9. At what rate should an intubated 5 year old with a TBI be ventilated? (Circle all that apply)
 - a. 10 bpm
 - b. 15 bpm
 - c. **20 bpm**
 - d. **To keep ETCO₂ 40 (35-45)**
11. 10. If the EtCO₂ in an intubated patient falls below 35, what is the most likely cause?
 - a. Hypoventilation
 - b. Hypoxia
 - c. Acidosis
 - d. **Hyperventilation**