Requires Waiver from Colorado Board of Medical Examiners

Indications:

1. Inability to maintain adequate ventilation using BVM.
2. Glasgow Coma Score of 8 or less.
3. Face and/or neck burns associated with inhalation injuries where swelling may obstruct the airway.
4. Face and/or neck edema associated with anaphylaxis where swelling may obstruct the airway.
5. Multiple system trauma where there is high risk for respiratory failure during transport.
6. Deterioration head injury patients at risk for intractable vomiting.
7. Presence of trismus.
8. Age greater than 12. RSI is not allowed for children under the age of 12 unless a licensed medical practitioner is present to administer the RSI medications.

Precautions:

1. Paralytics cause all respiratory efforts to cease; therefore the patient must be manually ventilated until successful intubation and application of an automatic ventilator, or (if intubation is unsuccessful) until the paralytic wears off and the patient resumes spontaneous ventilations.
2. BVM ventilation should be done while maintaining cricoid pressure to lessen the risk of aspiration. Consider an orogastric tube as well.
3. See precautions under the specific drugs used in RSI.

Technique:

1. Perform a pre-intubation evaluation. Risks for difficult intubation may include:
    a. A short neck or receding chin.
    b. An immobile mandible with the inability to open the mouth more than 3cm. RSI will not improve mandibular arthritis but will stop trismus or other muscle problems.
    c. Loose teeth, dentures, or swollen tongue.

   d. Severe injuries or bleeding that may conceal or alter visual landmarks.

2. Find your landmarks for doing a cricothyrotomy during your pre-intubation evaluation.
3. Assemble required equipment (BVM, Yankauer suction, laryngoscope, stylette, ET-tubes, syringe, laryngeal mask airway, medications, and cric kit). Make sure the equipment works!
4. Pre-oxygenate with 100% 02 either by face mask or BVM, depending on the quality of the pt's own ventilatory effort. Use cricoid pressure with BVM.
5. During pre-oxygenation, elevate pt's head or shoulders at least 10cm off the bed if no risk for c-spine injury. Head elevation is more often used in adults and shoulder elevation in children, but the location of the elevation absolutely dictated by age.
6. Give Atropine 0.02 mg/kg. I.V. to children $\leq$ 10 yrs old unless HR $\geq$ 180. Minimum dose 0.1mg. maximum 0.5mg.
7. Fentanyl is the preferred drug when a head injury is suspected; Lidocaine is considered 2nd line. Give Fentanyl 1 mcg/kg, maximum 100mcg. Allow to circulate for 1 minute. This is done during the pre-oxygenation period.
8. Lidocaine is a 2nd line drug when head injury is suspected but also may be used to decrease ICP with intubation. Give Lidocaine 1.5 mg. /kg. I.V. up to 100mg. Allow to circulate for 1 minute. This is done during the pre-oxygenation period.
9. Sedate patient using Etomidate 0.3mg/kg IV. This is also done during the pre-oxygenation period.
10. Allow drugs to circulate and then give Succinylcholine 1.5mg/kg IV.
11. Wait 30 seconds for relaxation to occur. Fasciculations may or may not occur.
12. Orally intubate the patient or place a King tube. You have three attempts spaced apart over five minutes with BVM support in-between. Inflate the cuff and release cricoid pressure.
13. Note tube position and confirm placement. Readjust tube by deflating and re-inflating the cuff. Secure tube.
14. Etomidate is a very short acting medication, and you will need to re-sedate the patient using Midazolam 0.1mg/kg before it wears off.

15. For transports greater than 20 minutes consider the need for further paralysis and use Vecuronium 0.1 mg/kg IV.

Notes

1. After the administration of succinylcholine, spontaneous respirations may return in 5 to 10 minutes. Be prepared to adjust ventilatory support and if the pt is combative, re-sedate and re-paralyze.
2. If the pt needs intubation during transport make the environment best for success. Stop the ambulance if necessary.
3. If intubation is unsuccessful, BVM may be all that is necessary.
4. If you are unable to place an ET tube, King tube, or ventilate with BVM, perform a cricothyrotomy.
5. If there are relative contraindications to succinylcholine, medical control can be consulted for vecuronium use. Remember that vecuronium will add a few minutes to the RSI as it takes longer to get ready and to start working than does succinylcholine. It also lasts much longer, so if you are unsuccessful in establishing an airway, you will have to ventilate with BVM for a significant period of time.