CONNECTICUT STATEWIDE EMS PROTOCOLS V2020.2
SUMMARY OF CHANGES

Protocol	V2020.2 changes
1.0 Routine Patient Care, p. 11	In Ventilation Rate charges: • Deleted second row "Patient - Basic Airway - Supraglottic Airway" • Deleted last column "8-10 breaths per minute" • Added asterisk after "Bag-Valve Ventilation Rates" to link to guidance statement below
1.1 Routine EMR Patient Care, p. 14	In Ventilation Rate charges: • Deleted second row "Patient - Basic Airway - Supraglottic Airway" • Deleted last column "8-10 breaths per minute" • Added asterisk after "Bag-Valve Ventilation Rates" to link to guidance statement below
2.3A Anaphylaxis Adult, p. 21	Replaced "Epinephrine 1mg/ml (1:1,000) 0.3mg (0.3ml) IM" with "Epinephrine 0.3mg (0.3ml) of 1mg/ml (1:1,000) IM"
2.5A & P Asthma, p. 24 and 25	Yellow "A" section, revised the epinephrine verbiage to Epinephrine 0.3mg (0.3ml) of 1mg/ml (1:1,000) IM, lateral thigh preferred
	In the red "P" section, removed the first "IM", leave the one after (1:1000)
	Magnesium" is the start of a new, bulleted line.
	Chronic Obstructive Pulmonary Disease (COPD) refers to a group of lung diseases (most commonly emphysema and chronic bronchitis) that block airflow and make breathing difficult.
	Patient with a "silent chest" may have severe bronchospasm with impending respiratory failure.
2.8A Fever – Adult, p. 29	New
2.17 Newborn Resuscitation p. 41	Replaced " epinephrine 0.1 mg/ml (1:10,000) 0.01 – 0.03 mg/kg IV/IO (0.1 – 0.3 ml/kg)." with "Epinephrine 0.01 – 0.03 mg/kg (0.1 – 0.3 ml/kg) of 0.1 mg/ml (1:10,000) IV/IO"
2.25 Stroke Adult/ Pediatric, p. 61	Modified "Consider obtaining vascular access with an 18g IV in the forearm or antecubital fossa. Transport should not be delayed to obtain vascular access" to "En-route to the hospital, obtain vascular access with a minimum of 20g IV in the forearm or antecubital fossa. Transport should not be delayed to obtain vascular access."
3.0 Acute Coronary Syndrome – Adult, p. 64	Red Flag Addition - added "or morphine" after "nitrates" in second bullet of red flag warning box
	Added 'If available,' to beginning of 2nd bullet in pearls
	Formatting - Paramedic section, first bullet point: divide by making the second sentence beginning with "Increase IV/IO nitroglycerine by…" a sub-bullet under the first bullet
3.1P Bradycardia Pediatric, p. 68	Replaced "Epinephrine 0.1 mg/ml (1:10,000); 0.01 mg/kg IV/IO (0.1 mL/kg)" with "Epinephrine 0.01 mg/kg (0.1 mL/kg) of 0.1 mg/ml (1:10,000) IV/IO"
3.2 Cardiac Arrest, p. 69	More narrowly defines indication for passive oxygenation CCR to only witnessed, sudden cardiac arrest of suspected cardiac etiology.
	Added Red Flag Box warning "All EMS Providers on scene agree with termination of resuscitation and presumption of death."
	Corrected magnesium dosing for torsades to 1-2 grams.
	Reordered bullet for consideration of hyperkalemia prior to acidosis bullet and adds other examples of suspected hyperkalemic arrest to include crush injury and dehydration/AKI.

3.4 Post Resuscitation Care, p. 76	Second Bullet from the top begins with "Initial ventilation rate..
	Under Paramedic - Adult: Deleted "If the patient is unresponsive, consider transport to a facility capable of inducing therapeutic hypothermia."
	Deleted "OR Phenylephrine 100 – 180 microgram loading dose followed by infusion 40 –60 microgram/min."
	Under paramedic pediatric: Deleted "Post-Resuscitative Care - If the patient is unresponsive, consider transport to a facility capable of inducing therapeutic hypothermia."
	Revised "transport" in 1st bullet of pearls to "transporting"
3.5A Tachycardia – Adult, p. 77	Replaced Red Flag Box bullet "Consider reducing diltiazem dose by 50% in elderly patients." with "Reduce diltiazem dose by 50% in patients greater than or equal to 65 years of age. Consider diluting and infusing as a bolus infusion."
4.0P Burns – Pediatric, p. 82	Under Advanced EMT standing orders, moved "Less" from the end of the second square bullet to the beginning of the 3rd square bullet.
4.1 Drowning/Submersion Injuries – Adult and Pediatric, p. 84	Submersion and Immersion definitions box deleted
	Deleted bullet: "Conscious patients with submersion injuries should be transported to the hospital" and replaced with a combined NH / RI statement: "Conscious patients who survive any form of drowning are at risk of deterioration and should be transported to the hospital. Encourage transport and evaluation even if asymptomatic (asymptomatic near drowning patients should be observed for 4-6 hours for the development of complications)."
	Deleted the hypothermia table on this page, as it is also shown in Hypothermia Protocol 2.13.
	Deleted the existing hypothermia pearl and added this New Hampshire pearl: "There is no need to perform a Heimlich maneuver to clear the lungs of aspirated water; only a modest amount of water is aspirated into the lungs by most drowning victims, and is rapidly absorbed into the central circulation." Add the following two pearls: from ME, VT, and MA "Begin resuscitation efforts while removing the patient from the water if safe to do so"; from VT "Do not attempt water rescues unless properly trained and equipped. When operating on scenes involving water, use extreme caution and wear a PFD."
4.3 Musculoskeletal Injuries, p. 86	Added to PEARLS "Cold packs may be applied to affected areas (avoid direct contact with skin)." and "For amputations, clean amputated part, wrap in saline soaked sterile dressing, and place in airtight container. If ice is available, place container on ice (there should be no direct contact between tissue and the ice)."
4.4 Shock – Trauma Adult & Pediatric, p. 86	Under Advanced EMT Standing orders adult, revise "Total volume should not exceed 2000 mL ..." to "Total volume should not exceed 1000 mL ..." Under paramedic standing orders, delete "Consider obtaining a finger stick lactate level (if available and trained)"
	After "If tension pneumothorax is suspected" bullet, added reference to see 6.9 Needle Decompression
4.3.1 Prophylactic Cefazolin, p. 87	New
5.0 Airway Management, p. 96	Removed " Use the least invasive method: Non-rebreather Mask (NRB) → Continuous Positive Airway (CPAP) → Bag-Valve-Mask (BVM) → Supraglottic Airway (SGA)/Combitube →Endotracheal Intubation (ETT) → Cricothyrotomy (Cric). Procedures documenting the use of each device/technique listed below are found elsewhere in these protocols" and Replace with "Use the least invasive airway method to achieve effective oxygenation. Procedures documenting the use of each airway device/ technique listed below are found elsewhere in these protocols"

5.0 Airway Management, p. 96 (con't)	Removed "Use least invasive method for respiratory failure. NRB>CPAP>BVM>SGA>ETT>Cric" and replaced with replace with "Use the least invasive airway method to achieve effective oxygenation" (this applies to 5.1A Paramedic Standing Orders, and 5.1P Paramedic Standing Orders)
	Placed a bullet in front of: "For Respiratory distress in children and infants must be promptly recognized and aggressively treated as patient may rapidly decompensate." And Created a second bullet after this for "In the younger Pediatric population, allow patients to be in a position of comfort and diminish anxiety."
	Removed "if available" from any protocols related to wave-form capnography
	Removed link in 5.1P to Cricothyrotomy percutaneous (adult only - expecting to add a similar pediatric procedure)
5.1A Airway Management – Adult, p. 98	Removed " Use the least invasive method: Non-rebreather Mask (NRB) → Continuous Positive Airway (CPAP) → Bag-Valve-Mask (BVM) → Supraglottic Airway (SGA)/Combitube →Endotracheal Intubation (ETT) → Cricothyrotomy (Cric). Procedures documenting the use of each device/technique listed below are found elsewhere in these protocols" and Replaced with "Use the least invasive airway method to achieve effective oxygenation. Procedures documenting the use of each airway device/ technique listed below are found elsewhere in these protocols"
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5.2 CPAP, p. 100	Corrected typo: "Midazolma" in red flag box to "midazolam"
	Replaced #7 with "Adjust pressure between 5-15 cmH2O, based on patient condition and response."
	Under Paramedic Standing Orders, replaced first line with "*Paramedics may utilize CPAP on pediatric patients, starting pressure of 5, titrating up to 10 cmH20"
5.2.1 Bilevel Positive Airway Pressure – Adult, p. 101	New
5.3.1A Cricthyrotomy – Surgical, p. 102	Renumbered
5.3.2 Cricothyrotomy Percutaneous, p. 103	Renumbered
5.3.3 Cricothyrotomy – Percutaneous – Pediatric, p. 104	New
5.5 Nasotracheal Intubation, p. 107	Removed NRB-CPAP-BVM-SGA-ETT-CRIC statement
	Added bullet above "Lubricate the ETT...": "Select appropriate ETT size. It is recommended to start with a 7.0 ETT and adjust based on nostril size"

5.6 Orotracheal Intubation, p. 109	Deleted "Only after basic procedures are deemed inappropriate or have proven to be inadequate should more advanced methods be used. Use a graded approach for treatment by using least invasive method first. NRB → CPAP → BVM → SGA → ETT → Cric." Replaced under CONTRAINDICATION, "Epiglottitis.Facial or neck injuries that prohibit visualization of airway anatomy (relative)." with "None if clinically indicated"
	Inserted into procedure between current items #2 & #3: "Position patient in 'sniffing position' and optimize alignment of ear to sternal notch"
	Replaced "applying a cervical-collar" with "stabilizing head"
5.5, 5.6 and 5.10	Replaced both Post Intubation Care - Adult and Post Intubation Care – Pediatric with: Post Tube Placement Care – Adult Option 1: □ Ketamine 1mg/kg ideal body weight (IBW) IV/IO, repeat every 5-15 minutes as needed Option2: □ Fentanyl (preferred) 100 mcg IV/IO, repeat every 5-10 minutes as needed OR □ Morphine 2-5 mg, slow IV/IO push (be cautious of hypotension), repeat every 5 - 10 minutes as needed OR □ Hydromorphone (Dilaudid) 0.5 - 1 mg, slow IV/IO push AND □ Midazolam (preferred) 2 - 5 mg IV/IO, repeat every 5-10 minutes as needed OR □ Lorazepam 1 – 2 mg IV/IO, repeat every 10 minutes as needed (maximum total 10mg) Post Tube Placement Care – Pediatric Option 1: □ Ketamine 1 mg/kg IV/IO, repeat every 5 - 15 minutes as needed Option 2: □ Fentanyl (preferred) 1 mcg/kg IV/IO (max 100mcg), repeat every 5 - 10 minutes as needed OR □ Morphine 0.1 mg/kg (max 5 mg), slow IV/IO push (be cautious of hypotension), repeat every 5 - 10 minutes as needed AND □ Midazolam (preferred) 0.1 mg/kg IV/IO (maximum single dose 4 mg), repeat every 5-10 minutes as needed OR □ Lorazepam 0.1 mg/kg IV/IO (maximum single dose 4 mg), repeat every 10 minutes as needed
5.8A Rapid Sequence Intubation (RSI), p. 112	Under “Post Intubation Care”, replaced “Sedation” and the bullets under it (prior to “Paralysis”) with Analgesia and Sedation: Option 1: □ Ketamine 1mg/kg ideal body weight (IBW) IV/IO, repeat every 5-15 minutes as needed Option2: □ Fentanyl (preferred) 100 mcg IV/IO, repeat every 5-10 minutes as needed OR □ Morphine 2-5 mg, slow IV/IO push (be cautious of hypotension), repeat every 5 - 10 minutes as needed OR □ Hydromorphone (Dilaudid) 0.5 - 1 mg, slow IV/IO push AND □ Midazolam (preferred) 2 - 5 mg IV/IO, repeat every 5-10 minutes as needed OR □ Lorazepam 1 – 2 mg IV/IO, repeat every 10 minutes as needed (maximum total 10mg)
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5.10 Supraglottic Airway, p. 117	Broadly adds supraglottic airways (King LT-D and laryngeal mask) to AEMT scope of practice (rather than limiting to combitube). Also modifies scope of practice matrix at end of document.
	Deleted "AEMT'S can only utilize a Combitube per the current Connecticut Scope of Practice." from the first box.
	In first line of second box, replaced "combitube" with "supraglottic airway"
	Under "Procedure", second bullet, deleted "if available" from after "quantitative waveform capnography"
	For both adult and pediatric scopes of practice, changed AEMT column, rows King LT-D and Laryngeal Mask Airway from black to yellow with an asterisk inside.
6.9 Needle Decompression, p. 136	New
6.18 Trauma Triage and Transport Decision, p. 157	Updated triage criteria and algorithm to more closely mirror current CDC guidelines
6.19 Ventricular Assist Device (VAD), p. 158	Page moved from 6.9 to 6.19
	Corrected typo in algorithm. From "VAD functioning?", left pointing arrow should be "Yes" and downward pointing arrow should be "No"
Appendix 3A – Termination of Resuscitation Checklist	New
COVID-19 Modified 2.5A Asthma COPD	Revised "If 40 years old or younger" to "If 60 years old or younger" Revised "If age greater than 40 years" to "If age greater than 60 years"
	Replaced "For patients age greater than 40 years or history of cardiac disease who do not respond to treatment or, for impending respiratory failure, consider: 0.3 mg (0.3 ml) Epinephrine **IM (1 mg/ml or 1:1,000), lateral thigh preferred." with: "For patients who do not respond to nebulizer/MDI or, for impending respiratory failure, consider: 0.3 mg (0.3 ml) Epinephrine** IM (1 mg/ml or 1:1,000), lateral thigh preferred.
	Moved "For severe distress, after administration of IM Epinephrine, MDI or nebulized beta agonist, consider: Magnesium sulfate, 2 grams in 100ml NS given IV/IO over 10 minutes." to just before the bullet beginning with "Consider Levalbuterol"
COVID-19 Non-Transport	Inserted "(loss of smell)" after "anosmia"
	Inserted "if age >35 years" after "Chest pain"
	Inserted "if age >35 years" after "Chest pain"
Pediatric Medication Reference	In yellow section of pediatric reference, Revised "Ipratropium w/albuterol 0.5 micrograms" to "Ipratropium w/albuterol 500 micrograms"
Adult Medication Reference	Replaced adult medication reference - oxygen with: (left column) Indications: • Indicated in any condition with increased cardiac work load, respiratory distress, or illness or injury resulting in altered ventilation and/or perfusion. • Goal oxygen saturation ≥94% (90% for patients with COPD history) • High flow rate may be used as an adjunct prior to advanced airway placement.

Adult Medication Reference (con't)	(Right column) • 1-6 liters / min via nasal cannula • 10-15 liters/min via NRB mask • 15 liters / min or higher via BVM / ETT / supraglottic airway
	Added Cefazolin (Ancef)
	Acetaminophen - in right column, add under pain management: Fever • 500 – 1000 mg, PO OR • 1 gram IV/IO over 15 minutes if contraindication to PO medications"
	Diazepam – Replaced "CPAP" with "CPAP / Bilevel PAP"
	Diltiazem – under contraindications – replaced "WPW" with "WPW with atrial fibrillation"
	Fentanyl – Under "post intubation analgesia", replaced with "100 mcg, slow IV/IO, may repeat every 5-10 minutes as needed"
	Ibuprofen – in right column, add under pain management: Fever • 400 mg PO; Do not combine with other NSAID."
	Lorazepam – Replaced "CPAP" with "CPAP / Bilevel PAP"
	Midazolam – Replaced "CPAP" with "CPAP / Bilevel PAP"
	Deleted Phenylephrine reference row