H. Documentation on the patient care report for each intubated patient (ETT or approved rescue airway) shall include the methods used to confirm placement, presence of an acceptable ETCO2 waveform, the initial ETCO2 value, and a repeat ETCO2 value documented each time repeat vital signs are taken. Patient care documentation shall assure that all data points have been included on the ePCR.

I. After administration of any medication, the following must be documented on the ePCR:
   - Dose, route, and time of administration.
   - Effect of medication on patient's condition.
   - DMO facility authorizing implementation (if applicable).

J. If a paramedic performs a patient assessment and then releases the patient to a BLS unit, that paramedic must document his or her assessment on an ePCR.

Triage and Transport Guidelines

A. Yale New Haven Shoreline Medical Center ED

The Yale-New Haven Shoreline Medical Center ED, known by its MedCom/Valley Shore designation as "Yale Guilford," operates as a regular ED, and is staffed by the same attending emergency physicians, physician assistants, and nurses that staff the YNHH Emergency Department. The facility is equipped and staffed to offer the full range of emergency medicine for patients of all ages.

There are several general categories of patients who typically should not be transported to the Yale Guilford ED:

a. Trauma: Patients meeting the state's physiologic, anatomic, or mechanism of injury trauma triage criteria shall be transported directly to a designated trauma center. Patients with major burns and amputations should be transported directly to a trauma center.

b. Myocardial Infarction: Patients whose 12-lead ECG shows an acute ST-segment elevation myocardial infarction (STEMI) should generally be transported to a facility offering 24-hour percutaneous coronary intervention, and the cardiac cath lab activated from the field. These cases should be discussed with the YNHH York St Campus DMO physician if there are any destination issues.

c. Acute Stroke: Patients being cared for under the Focal Neurological Deficit protocol who meet the EMS Stroke Screen criteria should generally be transported to a facility capable of rapid screening and treatment of stroke. The Yale Guilford ED is unable to provide this level of rapid treatment.

d. Active Labor: Women in active labor should generally be transported to a facility with labor and delivery facilities. The Guilford ED is staffed and equipped to deliver babies, and if delivery is imminent, is an acceptable destination.

e. Psychiatric Emergencies, including alcohol or drug incapacitation: The Yale Guilford ED does not have the resources for prolonged monitoring of restrained patients. Patients who will need an evaluation by a psychiatrist or prolonged observation for substance intoxication should be transported to a hospital-based ED.

f. ROSC (Return of Spontaneous Circulation): Cardiac arrest patients who have been successfully resuscitated in the field should be transported directly to a facility capable of providing the full spectrum of post-arrest care (e.g. PCI, induced hypothermia), – i.e., to the YNHH York Street Campus or YNHH St. Raphael Campus.

B. Patients with Suspected Hip Fractures

Patients aged greater than 65 years with a ground level fall and **not** meeting *state trauma triage protocols but* presenting with signs of hip fracture shall be transported to ***YNHH – Saint Raphael Campus*** for evaluation and treatment, rather than either Yale Guilford or YNHH-York St Campus. Signs of a suspected hip fracture include severe pain, shortening of the leg, with or without inward or outward rotation of the leg, typically after a fall. Other

indicators include inability to bear weight on the leg, and/or stiffness, swelling or bruising in the area of the hip immediately after a fall.

C. Transport of Behavioral Health, Corrections and Police Custody Patients

Adult PEC vs. PEER destination decision

All adult patients on a PEC (emergency certificate signed by a physician, psychologist, licensed clinical social worker or advanced practice RN) should be brought to the **York St Campus ED**. *This does NOT apply* to patients on a PEER (police emergency evaluation request: police paper); these patients may be brought to either St Raphael Campus or York St Campus ED.

Altercation, assault or other person-on- person violence

If patients representing both sides of an altercation, assault, or person-on-person violence are injured, they should NOT both be brought to the same ED. Unless both of the individuals involved meet the state trauma criteria for mandatory transport to a trauma center, **they should be transported to separate emergency departments.** This is for their own protection and for the safety of EMS providers, hospital staff and other patients.

If the patients or law enforcement officers demand transport to the same facility, the transporting provider or incident commander should call direct medical oversight at the York St. campus for permission to transport to the same facility, or confirmation that they should go to separate ED's. The decision of the direct medical oversight physician carries the same authority as the EMS protocols.

D. Pediatric Transport Destination Guidelines

a. Patients aged 15 years or younger will not be transported by EMS to the St Raphael campus ED. The SRC ED will continue to accept walk-in pediatric patients, but those who are transported by EMS are likely to require consult or other services not readily available at the SRC ED.
b. Patients aged 15 years or younger with an acute behavioral health issue and a history of same, or in custody of law enforcement or Department of Corrections should be transported to the Yale Children's ED. All such patients 16 years or older should be transported to an ADULT emergency department.

E. Pediatric Refusal of Care/Transport

a. For minors (below 18 years of age) with no parent/legal guardian present, the providers must call DMO at the Yale Children's ED prior to obtaining the refusal.
b. Providers may obtain refusals without contacting DMO for minors 12 years or older WITH a parent/legal guardian present, AND the provider agrees with Purpose: to expedite the care of OB-GYN patients requiring specialist services now only available at Yale's York Street campus.

F. Obstetrics and Gynecology Destination Guidelines:

Patients with obstetric complaints and a gestational age of 16 weeks or greater should be transported only to the York Street campus and bypass Yale New Haven Shoreline Medical Center ED and YNHH Saint Raphael Campuses provided it is safe to do so. Examples of possible obstetric complaints include but are not limited to: vaginal bleeding or leakage of fluid, active labor, abdominal pain, lower extremity edema, shortness of breath, hypertension, headache, seizure or other neurologic complaint, or traumatic injury.

Patients with gynecologic complaints such as vaginal bleeding or vaginal discharge who are not pregnant but have abnormal vital signs (HR greater than 110, systolic blood pressure less than 100) or who have other signs of shock or critical illness should be transported only to the York Street campus and bypass Yale New Haven Shoreline Medical Center ED and YNHH Saint Raphael Campuses provided it is safe to do so.

C3 or direct medical oversight may be called if there is a destination question but routine use of C3 for these patients is not required. DMO should still be contacted for all children under 12.

Yale New Haven Hospital Capacity Coordination Center

The YNHH Capacity Coordination Center (C3) provides real-time recommendations to field EMS providers about the most appropriate destination for patients being transported to a campus of Yale New Haven Hospital. The ED Navigator Nurse will have access to the status of all the YNHH Emergency Departments and the overall capabilities, including bed capacity of each campus. The Capacity Coordination Center will be staffed and operate 24 hours a day, 7 days a week. They will be monitoring MED 10 and will use the radio designation of "C3" so that they can recommend which campus can best accommodate patients currently in the care of EMS units.

YNHH CEMS offer the following terminology for facility identification:
Capacity Coordination Center – "C3"
Yale New Haven: York Street Campus (YSC) – 20 York Street, New Haven
Yale New Haven: Saint Raphael Campus (SRC) – 1450 Chapel Street, New Haven

If the patient's condition dictates transport to a specific facility, C3 **does not need to be contacted**. These patients will still require a patch to the ED if YNHH CEMS policies and procedures mandate the patch.

Categories of patient that do not require a C3 notification include:

- Any patient under 18 years old being transported to the YSC Pediatric ED
- Suspected or confirmed hip fractures to the SRC Campus
- Trauma patients that meet state trauma criteria transported to YSC
- LVAD patients transported to the YSC
- Patients transported from Yale Health Plan (not meeting other destination criteria) to the YSC
- STEMI cath lab activations (Monday-Friday 1700-0800, Saturday/Sunday)
- 16+ weeks pregnant with OB complaint

Some examples that DO require C3 contact, and do NOT have a pre-determined destination:

- STEMI cath lab activations (Monday-Friday 0800-1700)
- Stroke alerts
- Psychiatric and substance abuse patients (age 16 and over)
- Law enforcement preference

If there is not a protocol related destination, please follow below:
The process for contacting the ED Navigator Nurse includes the following steps:

- Identify yourself and call C3 on MED 10 (Example: 2C2 to C3)

- State the patient's age and chief complaint (or medical condition found, if different). Inform C3 up front if the patient is followed by Smilow and is currently receiving oncology care or is a High-Risk OB patient.

- C3 will provide a preferred destination, based on optimal ability to care for that

patient.

- If the patient is strongly opposed to that destination, notify C3 for confirmation of secondary destination. EMS crews are NOT to advise patients regarding destination.

C3 may ask crews to inform patients of extended wait times or overcrowded conditions at a specific campus to allow the patient to make an informed decision.

- C3 cannot override a patient's refusal to be transported to a specific campus unless that campus is on diversion, or the patient has a pre-determined destination, e.g. trauma or probable hip fracture

Cath Lab Activation and stroke alert patients should be transported to the ED recommended by C3. Their decision will be based on Cath Lab availability and volume of stroke patients already in the ED. Patients may prefer a specific campus which will be honored if there is Cath Lab availability.

If you have a Priority 1 patient that requires an ED notification patch, a normal ED notification patch will need to be completed **after** contacting C3 for a destination recommendation:

Once a destination has been accepted, the unit is required to transport to the recommended campus. Do not confirm campus during initial transmission and then transport to another campus without notification or justification.

Please refrain from immediately requesting a specific destination, regardless of the sending facility. Allow the Navigator to make a recommendation based on the available resources at the time.

Local first response agencies have been requested to not discuss destinations with the patient to prevent potential issues with the transporting crews and the patient.

Please note that in the event a patient has a strong preference to a specific campus and is unwilling to be transported unless it is to that campus, advise C3 following notification with unit call sign, patient age, gender and complaint. Please do not make destination decisions or advise patients without consulting C3.

C3 is available as a supplemental resource to all EMS providers. Mandatory use of the system will be determined at the individual service level in collaboration with YNHH leadership. EMS providers practicing at agencies that require C3 use will be expected to comply with the protocol at all times.

Trauma Destination Guidelines

Patients meeting trauma triage criteria shall be transported to a designated trauma center, as per state regulations. The Emergency Department at YNHH York Street is the designated trauma facility for major trauma patients. Injured patients who do NOT meet the following criteria may be transported to other ED's, at their request.

Patients meeting the following state trauma criteria shall be transported to a Level I or Level II trauma center.

- Physiologic findings of
  - Glasgow Coma Scale of 12 or less, OR
  - Systolic blood pressure of less than 90 mm Hg, OR
  - Respiratory rate of less than 10 or more than 29 breaths per minute
- Anatomy of the Injury
  - Gunshot wound to chest, head, neck, abdomen or groin, OR
  - Third degree burns covering more than 15% of the body, or third degree burns of face, or airway involvement, OR
  - Evidence of spinal cord injury, OR
  - Amputation other than digits, OR
  - Two or more obvious proximal long bone fractures
- Mechanism of Injury
  - Fall from over 20 feet
  - Apparent high-speed impact
  - Ejection of patient from vehicle
  - Death of same car occupant
  - Pedestrian hit by car going faster than 20 MPH
  - Vehicle rollover
  - Significant vehicle deformity, especially steering wheel
- Other factors to consider in addition to anatomy, physiology and mechanism, when deciding whether an injured patient should be transported to a trauma center:
  - Age less than 5 or greater than 55 years
  - Known cardiac or respiratory disease
  - Penetrating injury to thorax, abdomen, neck, or groin other than gunshot wound

The only exception to these destination guidelines shall be a trauma patient in whom airway control cannot be established or external bleeding cannot be controlled by the EMS providers. EMS units coming from East or North of the Yale Guilford ED can stop there for assistance securing the airway or controlling bleeding site(s), and will then continue transport of the patient to the trauma center.

- Field personnel should communicate the nature of the injuries and mechanism, and should NOT request a specific type of trauma activation (modified vs. full). Communicating the nature of the injuries and the mechanism of injury (paying close attention to those criteria triggering a trauma response such as height of the fall, or the amount of MVC interior intrusion) will allow the ED staff to activate the trauma team according to that facility's criteria.
- If field personnel need help deciding whether a patient meets trauma criteria, they should contact DMO at YSC for additional guidance. EMS personnel should NOT call the Saint Raphael Campus or Yale-Guilford to ask permission to bring a patient, nor should ED staff divert an incoming patient based on the patch from EMS personnel.
- If a patient meeting trauma criteria refuses transport to a trauma center, and/or demands transport to the St Raphael Campus or the Yale Guilford ED, contact medical oversight at the York Street Campus through MedCom/Valley Shore for assistance dealing with the refusal.

YNHH Pediatric Trauma Destination Guideline

A. For patients meeting the state trauma triage criteria
   a. <16 years old– YNHH Pediatric ED
   b. 16 years old or greater – YNHH York St Campus Adult ED

B. All other patients
   a. <18 years old – any pediatric ED
   b. 21 years old or greater – any adult ED
   c. 18- 20 years old- Pediatric OR adult ED, per patient request

Lights and Siren Policy

The highest level certified/licensed EMS provider responsible for the patient's care will advise the driver of the appropriate mode of transportation based upon the medical condition of the patient.

When transporting the patient utilizing lights and sirens, the need for immediate medical intervention should be beyond the capabilities of the ambulance crew using available supplies and equipment and the reasons must be documented on the patient care report.

Such conditions include, but are not limited to:

1. Unstable airway or severe respiratory distress
2. Shock without vascular access.
3. Patient with anatomic or physiologic criteria for field triage to a trauma center
4. Status epilepticus that persists after administration of benzodiazepines.
5. Cardiac arrest with persistent ventricular fibrillation, hypothermia, overdose or poisoning.

However, should traffic be so congested that significant delays in transport may occur, L&S transport may be considered for conditions other than the above such as an acute CVA or STEMI, for example.

The mode of transport for emergency interfacility transfers should be based upon the directions of the referring physician or direct medical oversight physician who provides the orders for patient care during the transport. Generally, emergency interfacility transport patients have been stabilized to a point where the minimal time saved by L&S transport is not of importance to patient outcome (unless the patient's condition has deteriorated en route).

Lights and sirens use should be documented and justified on the patient care report (e.g., "flail chest", "systolic BP<90", etc.).

Exceptions to these policies can be made under extraordinary circumstances (e.g., disaster conditions or a back log of high priority calls where the demand for EMS ambulances exceeds available resources).

(From the guidelines approved by the state by the Connecticut EMS Advisory Council) Response Guidelines for Authorized Emergency Medical Vehicles (Including Lights and Siren Use)

Medication Formulary

The following medications are approved for use by EMS services receiving medical oversight from YNHH CEMS, in accordance with CT State EMS Guidelines. Medications in **bold** are optional and may be carried at the discretion of the EMS agency

- Acetaminophen (PO tablet/suspension mandatory, **IV optional**)
- Adenosine
- Albuterol
- Amiodarone
- Aspirin
- Atropine
- **Atropine/Pralidoxime Auto Injector**
- Calcium Chloride
- Calcium Gluconate
- **Dexamethasone**
- Dextrose
- Diltiazem
- Diphenhydramine
- Epinephrine (1:1,000)
- Epinephrine (1:10,000)
- Fentanyl
- Glucagon
- Glucose (oral)
- Haloperidol
- **Hydroxocobalamin**
- Ipratropium Bromide
- Ketorolac
- Lidocaine
- Magnesium Sulfate
- Methylprednisolone
- Metoclopramide
- Metoprolol
- Midazolam
- Morphine Sulfate
- Naloxone
- Nitroglycerin (SL and IV)
- Norepinephrine
- Ondansetron
- Oxygen
- Sodium Bicarbonate
- Tetracaine

Transport Medications

Any YNHH CEMS-authorized paramedic may transport any patient who is already on an intravenous infusion of any of the following medications, under written orders from the transferring physician including parameters for titrating or terminating the infusion. The paramedic is not authorized to alter the dose of any medication not included in the Connecticut Statewide EMS Protocols Drug Formulary once transport has begun.

- Amiodarone
- Antibiotics
- Beta blockers (all)
- Blood products
- Calcium channel blockers (all)
- Dopamine
- Fentanyl
- Heparin (only after the initial bolus is completed)
- Insulin
- Lidocaine
- Magnesium Sulfate
- Midazolam
- Morphine
- Naloxone
- Nitroglycerin
- Norephinephrine
- tPA (only after the initial bolus has been completed)

Emergency Incident Rehabilitation

Recommended Practices for Fire/EMS agencies
NOTE: These recommendations are based primarily on the NFPA 1584 document entitled *"Standard on the Rehabilitation Process for Members during Emergency Operations and Training Exercises, 2015 Edition*". These are not YNHH CEMS policy but are instead recommendations based upon current national trends.

A. **RESPONSIBILITIES**:

- Incident Commander:

- Include rehab in incident/event size-up
- Establish a rehab group to reduce adverse physical effects on personnel while operating during emergencies, training exercises, and extreme weather conditions
- Designate and assign a supervisor to manage rehabilitation
- Ensure sufficient resources are assigned to rehabilitation
- Ensure EMS personnel are available for emergency medical care of first responders as required

- Rehab Officer:

1. An EMT, paramedic, or SHARP Team member should be assigned to the rehab area, and if appropriate may be designated by the IC as the Rehab Officer (RO). The rehab officer should be clearly identified (i.e. vest). If available and practical, it is preferred that ALS- level personnel and equipment be present.

2. Shall select a suitable location for rehabilitation. The location should be large enough to accommodate multiple personnel, should be removed from hazardous atmospheres, provide protection from inclement weather, should provide water supplies, and be readily accessible to EMS personnel needed for emergency care.

- Rehab Team:

1. Should include sufficient personnel to perform rehab sector functions for the maximum number of personnel anticipated to be in the Rehab Area at any given time. A ratio of at least one Rehab Team member for every ten personnel on scene is recommended. The team should include sufficient EMS personnel to perform medical monitoring tasks but may include non-EMS personnel also.

- Supervisors / Company Officers:

    1. All supervisors and company officers should maintain their awareness of the condition of each member operating within their span of control and ensure that adequate steps are taken to provide for each member's safety and health. The ICS structure should be utilized to request relief and/or reassignment of fatigued crews.

- Personnel:

    1. Any member who believes that his or her level of fatigue or exposure to heat or cold is approaching a level that could affect his or her performance or the operation in which he or she is involved should advise his or her supervisor or company officer. Personnel should also remain aware of the health and safety of other members of the crew.

B. **ESTABLISHING THE REHABILITATION SECTOR**

1. The IC should establish a Rehab Sector or Group when conditions indicate that rest and rehabilitation is needed for personnel operating at an incident scene or training exercise. This determination should be made based upon the anticipated duration of the operation, level of physical exertion, and environmental conditions, including temperature, humidity, and wind-chill. Guidelines to consider include:

    - Heat stress index >90 degrees F

    - Wind chill index <10 degrees F

    - Personnel have completed (or will complete) exertional work with a second 30-minute or 45-minute SCBA cylinder, or a single 60-minute SCBA cylinder

    - Personnel have performed (or will perform) 40 minutes of intense work without SCBA.

2. It is recommended that an EMS vehicle not otherwise involved in emergency operations at the scene be posted at the Rehab Area. If required, an additional ambulance should be requested to the scene for this purpose. Except under extreme circumstances, this ambulance should not be used for transport of civilian patients.

3. The location of the Rehab Area will be designated by the IC and/or the RO, and should:

    - Be far enough from the scene to allow personnel to safely remove (and leave outside the area) SCBA and turnout gear, and remove personnel from the urgency of the scene, yet close enough to allow prompt re-entry into the operation on completion of rehab.

    - Provide adequate protection from environmental conditions and exhaust fumes

- Be easily accessible by EMS units
- Be large enough to accommodate several crews.
- For extreme heat conditions, have shaded areas, misting systems and/or fans, and an area to sit down.
- For extreme cold and/or wet conditions, have dry protected areas, heated areas, and dry clothing
- Be integrated with departmental system for personnel accountability, utilizing a single entry and exit point when feasible. Examples of sites that have been utilized include a nearby building, garage, or lobby; a school bus or large van; or an open, shaded area.

C. **REHAB OPERATIONS**

1. Resources: The RO should secure, through the IC or Logistics Officer, all necessary resources to properly supply the sector. These may include oral fluids, foods, medical supplies, paperwork, lighting, heaters, fans, a means of access to toilet facilities, and other assets as appropriate to the incident.

2. Rotation of Personnel/Accountability: Companies and units will be assigned to the Rehab Sector by the IC, or his/her designee e.g. Operations Officer. There should be at least 10 minutes of self-rehabilitation after using one 30-minute SCBA cylinder, or after performing 20 minutes of intense work without SCBA.

   Whenever possible, the entire company or unit should be assigned to the Rehab Sector as a group. The crew designation, names of members, times of entry and exit, and appropriate medical information (including entry and exit vital signs) should be documented by the Rehab Officer or designee on the PCR or similar document. Personnel rotated to the Rehab Sector shall not leave until directed by the RO. If any member requires transport to a medical facility, the IC shall be notified immediately.

3. Hydration: During exertional activity, in both hot and cold weather, personnel should ensure adequate hydration through water consumption. Carbonated beverages should be avoided. After the first hour, sports drinks containing electrolytes should be provided. Nutrition should also be provided at longer duration incidents.

EMS Operations in the Rehab Sector

1. EMS personnel shall ask members arriving at the Rehab Area if they have any symptoms of dehydration, heat/cold stress, physical exhaustion, cardiopulmonary abnormalities, or emotional/mental stress. EMS personnel shall complete a medical evaluation, and appropriate treatment and/or transport, for all members who report such symptoms.

2. Vital signs shall be documented upon both entry and exit of the rehab area. This should include heart rate, respiratory rate, blood pressure, pulse oximetry, and temperature when available.

3. A medical evaluation, with appropriate treatment and/or transport, shall also be completed for any member meeting any of the following criteria:

   - The RO or Rehab Sector EMS staff observe evidence of one of the above conditions displayed by a member.
   - Another member, officer, or supervisor indicates he/she does not appear well.
   - The member had to leave an evolution for reasons of excessive fatigue or symptoms.

4. Medical Treatment: Standard treatment and/or transport shall be provided in accordance with Connecticut Statewide EMS protocols.

5. When treating a member with signs or symptoms of dehydration or fatigue (such as vomiting without evidence of toxic exposure or climate conditions producing multiple cases of mild heat stress), with absence of chest pain, change in mental status, or other indicators of a medical condition requiring emergent care, a paramedic or SHARP Team member working in the Rehab Sector may elect to perform a trial of intravenous rehydration if the following resources are available:

   - 12-lead ECG, with appropriate interpretation training
   - Tympanic or temporal thermometer, with appropriate training

   The member may be considered a candidate for non-transport if, following the intravenous infusion of at least one liter of crystalloid, he/she has complete resolution of symptoms and vital signs within the following ranges:

      - Systolic blood pressure >90 and <200 mmHg
      - Pulse rate >50 and <100 beats per minute
      - Respirations >12 and <24 per minute
      - Temperature < 100.5 F

Even if the member is not transported to the hospital, EMS in the rehab sector shall recommend that he/she not return to active duty for the duration of that duty cycle or 24 hours, whichever is longer. If the member's condition does not improve or worsens at any time during the trial of rehydration, the member shall be transported to the hospital.

BLS/ALS Assessment

All patients must be evaluated by the highest-level EMS provider present on scene, regardless of initial dispatch complaint or EMD classification. A paramedic on scene may only delegate care to the BLS provider after they have performed their own assessment and determined that the patient does not require ALS management.

BLS providers may only cancel responding paramedics in certain limited situations. Responding paramedic units may not be cancelled on calls requiring ALS response during EMD (e.g. Echo, Delta, or Charlie calls), or calls in which a paramedic is requested by a BLS provider on scene.
For calls in which ALS is not automatically dispatched per EMD guidelines (e.g. Bravo/Alpha calls, Priority 2 calls) the patient may be managed by BLS personnel. If an ALS unit has been dispatched to a Bravo or Alpha call, the response may be cancelled by BLS on scene if considered appropriate by the most senior EMT on scene.

The paramedic on any ALS first response units must make contact with the patient whenever dispatched to a medical call that meets ALS criteria as above. If there is already a transport medic on scene, that medic has evaluated the patient, and indicates there is no need for additional help, then the first responder medic can clear.

In cases where the medics arrive simultaneously, the ALS first responder must make contact and evaluate the patient. The patient belongs to the designated ALS first responder until formally handed off to either a BLS unit if appropriate, or to the transport medic who must then agree that the first responder medic is not needed.

After evaluation and with documentation, paramedics may downgrade level of care to BLS if appropriate. This requires an appropriate physical examination, additional testing when appropriate, and written documentation of these assessments in the patient record by the paramedic. Inappropriate downgrades of patients requiring ALS interventions to BLS, or inviting inappropriate refusals of transport, represents a form of patient abandonment. In cases in which the call is appropriately given to the BLS provider after a paramedic assessment, the EMT may write the documentation, but the paramedic must also sign the chart and include his or her assessment and justification for BLS only care. Paramedics who are not part of the transport crew are responsible for completion of a full PCR on every patient contact.

Airway Paramedic Policy

YNHH CEMS paramedic shall utilize this policy during all attempts at advanced airway management, or when assuming responsibility for an airway already established by a non-YNHH CEMS agency. The term "advanced airway" shall be applied to both the endotracheal tube and any other approved blindly inserted airway device (BIAD). A properly secured airway is a lifesaving measure that has the potential for devastating harm if not performed or maintained correctly. The availability of objective methods of tube placement confirmation (quantitative electronic waveform capnography) has given the paramedic a tool to continuously ensure that an advanced airway is positioned correctly. The following steps are designed to assist the paramedic in verifying initial airway placement, and to maintain a correctly positioned airway device until the Emergency Department staff assumes patient care.

A. The paramedic that initially establishes an advanced airway shall assume the role of "Airway Paramedic" for the remainder of the call. The Airway Paramedic shall take responsibility for airway monitoring until the patient is transferred to the Emergency Department staff. Barring extraordinary circumstances, this responsibility will not be delegated to another EMS provider (e.g.- first responder paramedic handing off role to transport paramedic). While mechanical ventilation may be delegated to another provider, the Airway Paramedic shall be responsible for all aspects of tube placement (lung sounds, capnography, pulse oximetry, etc.). In those rare situations in which the Airway Paramedic is unable to transport, the transporting paramedic shall clearly document the initial Airway Paramedics name, agency, and reason for non-transport. The transporting paramedic should also re-confirm tube placement before assuming responsibility as Airway Paramedic. The initial paramedic shall still be responsible for completion of the Intubation Data Collection Form if applicable.

B. Waveform end-tidal CO_2 confirmation and continuous monitoring is required for all field intubations (adult and pediatric, oral and nasal, endotracheal tube and BIAD). Waveform end-tidal CO_2 shall be used to both confirm initial tube placement, and to continuously monitor tube placement until patient care is transferred to the ED staff or care is otherwise terminated including during patient transfer to and from the ambulance. Quantitative capnography must include continuous display of the $ETCO_2$ waveform. Mechanical esophageal detector devices (bulb or syringe types) may also be used to supplement end- tidal CO_2 in equivocal cases, but some form of end-tidal CO_2 detection is mandatory. Should the patient lose their $ETCO_2$ reading, the paramedic should immediately search for an explanation. Possible reasons include:

    a. Lack of perfusion

    b. Equipment sensor contamination due to body fluids

    c. Other equipment malfunction

    d. Inadvertent extubation due to tube movement

C. The paramedic should seek to correct the problem resulting in the loss of capnography reading. If after 30 seconds there is no return of $ETCO_2$ measurement, the patient

should be extubated and ventilated with a BVM and airway adjunct. The patient may be re-intubated, however the airway device will only be left in place as long as an $ETCO_2$ reading is measurable.

D. Upon Emergency Department arrival, the Airway Paramedic shall record a quantitative capnography reading. The Airway Paramedic shall request confirmation of airway placement by the appropriate Emergency Department staff member, before the patient is physically transferred from ambulance stretcher to hospital bed. YNHH CEMS shall encourage local Emergency Department personnel to cooperate with this request. The ED staff member that confirms airway placement should also document verification on the YNHH CEMS Intubation Data Collection Form if being used, otherwise the name of the provider verifying placement should be clearly documented.

E. In the event that a YNHH CEMS paramedic is questioned regarding correct airway placement, an airway debriefing shall be initiated immediately. The paramedic shall contact MedCom/Valley Shore and request notification of the hospital EMS Coordinator. If the coordinator cannot be contacted, the on-call SHARP Team member shall be contacted through MedCom/Valley Shore. The YNHH CEMS representative performing the debriefing shall either respond directly to the Emergency Department, or speak with the involved parties by telephone. A Code Summary should be printed for the call in question, and provided to the YNHH CEMS personnel performing the debriefing. If system status allows, the involved crew should remain at the hospital until the debriefing is complete.

F. Documentation is a key component in protecting a paramedic against claims of a misplaced airway device. The documentation should include initial and final assessment of airway placement, regardless of transportation decision (hospital transport or field termination). Documentation should also reflect a re- assessment performed after each patient movement. The mnemonic “EMS BREATH” may be used as a memory aid for the components of airway verification. The components are:

- E= End Tidal CO2 reading
- M= Measure (size/depth of tube)
- S= SaO2 reading
- B= Bilateral breath sounds
- R= Rise/fall of chest
- E= Esophageal detection
- A= Absent gastric sounds
- T= Tube misting
- H= Hospital confirmation

Documentation should be made on the ePCR. Copies should be left in the Emergency Department prior to leaving the hospital.

Cardiac Cath Lab Activation

Inclusion Criteria:

A. 12-lead ECG of good quality showing a STEMI (MUST MEET ALL THREE CRITERIA):
   - ST elevation 2mm or greater in leads V2-V3, or 1mm or greater in at least two other anatomically contiguous leads
   - No left bundle branch block (LBBB) or wide-complex paced rhythm
   - *** ACUTE MI SUSPECTED*** (LP 12), *** MEETS ST ELEVATION MI CRITERIA*** (LP 15), or other device specific STEMI interpretation prints on 12 lead ECG AND paramedic agrees with interpretation

B. Active chest pain or equivalent symptoms (e.g. nausea, dyspnea)

C. No major active bleeding (e.g. Vomiting frank blood)

D. No major surgery within the past six weeks (e.g. abdominal, neurosurgical)

E. No significant trauma

F. Patient able to provide informed consent OR Family OR a legal representative will be with the patient to provide consent

Activation Process:

1. Notified the receiving hospital as soon as the patient has met activation criteria. Contact MedCom/ Valley Shore and advise them of the /destination facility and request cath lab activation.

2. Follow treatment protocols as outlined in ACS protocol (3.0)

3. Initiate transport

4. After stabilization of patient, establish communications with the receiving hospital to provide a full report and ETA. Clearly state that the patient has a STEMI and that the cath lab should be activated.

Stroke Alert

A. Initiate patient care in accordance with current CT State EMS Protocols.

B. Determine an accurate time of symptom onset.

C. If symptoms began **within the last 24 hours**, the patient is not hypoglycemic (< 60 mg/dL) AND the stroke screen is positive:

    a. Notify the receiving facility of a Stroke Alert as soon as possible

    b. Initiate rapid transport to the nearest Stroke Center (Yale New Haven Hospital-York Street Campus OR Saint Raphael Campus).

    c. Patients < 18 years old should be transported to Yale Children's Hospital ED

Medical Authorization Policy

PURPOSE: To provide a mechanism by which State of Connecticut certified or licensed EMS personnel can become medically authorized by Yale-New Haven Hospital Center for EMS (YNHHCEMS) MIC Medical Director. Only employees of EMS services sponsored by YNHHCEMS and who otherwise meet the requirements of this policy are eligible to obtain medical authorization.

A. DEFINITIONS: The following definitions apply to this Policy;

Applicant: An employee of an EMS service who has applied to YNHHCEMS for medical authorization.

ALS calls: Those calls requiring advanced life support services in which the applicant for medical authorization is responsible for assessment of the patient, formulation of an appropriate treatment plan, and performance of appropriate ALS skills under the supervision of an approved Paramedic Field Instructor (PFI) or SHARP Team member.

Medical Authorization: Permission to perform medical care treatments (a) to the extent permitted by the CT Office of Emergency Medical Services; and (b) according to YNHHCEMS protocol under the medical oversight and direction of YNHHCEMS as provided by law.

EMS Service: An organization or entity that is (a) authorized under applicable state and local laws and regulations to provide emergency medical services, and (b) sponsored by YNHHCEMS.

B. ELIGIBILITY:

To be eligible for consideration for medical authorization, an applicant must;

1. Meet all applicable state licensure and certification requirements;
2. Be employed by and in good standing with an EMS service;
3. Meet all other requirements specified in this Policy.

C. Process:

To be considered for medical authorization, applicants must provide the following documentation to the YNHHCEMS office:

1. A copy of a current State of Connecticut certification card or license at the level for which medical authorization is being sought.

2. A copy of current BLS-HCP card.

3. A letter from the EMS service verifying employment at the MIC level for which medical

authorization is being sought.

4. A completed YNHHCEMS MIC Personnel application.

D. **PARAMEDICS:**
In addition to the above (C1-4), the following must be submitted by the paramedics seeking medical authorization.

1. A current, valid National Registry of EMTs paramedic card, current State of Connecticut paramedic license, and current ACLS, PALS, PHTLS, CPR and PEPP/EPC cards. Paramedic applicants may apply and begin precepting without current PEPP/EPC certification on the condition that they will complete course prior to attaining YNHHCEMS medical authorization. NREMT paramedic registration is mandatory for all paramedic applicants for YNHHCEMS medical oversight.

2. A letter of recommendation is required from the applicant's last MIC medical director who provided medical authorization, verifying that the applicant is eligible for on-going medical authorization and attesting to his/her professionalism; or, if the applicant is a new graduate, a letter of recommendation from the Course Medical Director or Course Coordinator verifying that the applicant graduated in good standing and attesting to his/her professionalism.

3. A copy of a current driver's license.

4. Upon review and approval of the required application materials by the YNHHCEMS Director, the applicant will schedule a written protocol exam with the YNHHCEMS office, to be completed within 30 days. If the applicant fails (grade<70%) the protocol exam, he/she may schedule a time to take the exam within an additional 30 days. If the applicant fails the exam a second time, he/she must re-start the application process not less than 90 days after the second failure.

5. Upon successful completion of the protocol exam, the MIC Director will grant probationary medical authorization to the applicant for a period of up to, but not exceeding ninety (90) days. During this probationary period, applicants for medical authorization at the paramedic level must provide pre-hospital patient care under the supervision of a YNHHCEMS-approved Paramedic Field Instructor (PFI). If the applicant is unable to complete the required number of ALS calls set forth in a. or b. below in the 90-day period, he/she must apply to the YNHHCEMS office in writing for an extension of the probationary period.

6. New graduate EMT-P applicants must complete a minimum of thirty (30) advanced life support (ALS) calls, each to the satisfaction of the YNHHCEMS PFI.

7. EMT-P applicants with prior field experience under the auspices of another medical director must complete a minimum of fifteen (15) ALS calls, each to the satisfaction of the YNHHCEMS PFI. If the applicant has not practiced in the field at the paramedic level for more than six months, the MIC Medical Director may choose to require more than 15 ALS calls, and may require operating room and/or simulation time for demonstration of proficiency in airway management skills.

8. The supervising PFI will evaluate and document each call on a YNHHCEMS MIC Preceptor Field Evaluation form. A copy of the completed patient care report must be attached to the evaluation form for each call. These forms will be compiled for review at the time of the final field evaluation.

9. The minimum requirements set forth in this section may be modified at the sole discretion of the MIC Medical Director, e.g. for paramedics with substantial prior field and teaching experience.

10. When, as determined by the PFI(s) and the EMS Coordinator(s), the MIC applicant has demonstrated sufficient clinical competence and professionalism such that medical authorization is appropriate and in the best interest of the public health and safety, a written or verbal recommendation for final field evaluation will be made to the MIC Medical Director. In the event the PFI(s), EMS Coordinator(s), and/or YNHHCEMS Director determine the MIC applicant has not demonstrated sufficient clinical competence and professionalism to warrant final field evaluation, the MIC Medical Director will review the applicant's file, discuss the applicant's performance with the PFI(s) and/or EMS Coordinator(s), and determine the appropriate course of action, which may include additional precepting.

11. Following completion of the minimum requirements (and/or such other requirements as the MIC Medical Director may prescribe pursuant to Section D.6 above) and recommendation as in D.6 above, the supervising PFI, as applicable, will submit the applicant's field evaluation documentation to the YNHHCEMS office for review. Arrangements will then be made for final field evaluation through the YNHHCEMS office. This field evaluation shall consist of a minimum of four hours of direct field observation by a member of the YNHHCEMS medical authorization to the Medical Director. If the Operations Committee member does not recommend medical authorization, the Operations Committee shall advise the MIC Medical Director how to proceed. Typically, additional precepted ALS calls will be required before the applicant is granted another final field evaluation.

E. Modification of Medical Authorization for Paramedics

Should a medically authorized EMT-P wish to function at the EMT-B level only, but maintain EMT-P licensing, written notification of such must be submitted to the YNHHCEMS Director and one of the following must occur:

1. The EMT-P must continue to complete the requirements of the YNHHCEMS MIC Continuing Education Policy for paramedics, or;

2. The EMT-P must successfully complete 40 hours of approved EMT continuing education within six months of relinquishing medical authorization, and every two years thereafter.

Note: For reasons of liability. YNHHCEMS strongly recommends against YNHHCEMS-authorized paramedics serving as paramedics at one YNHHCEMS-sponsored ALS agency, but as an EMT-B at

another YNHHCEMS-sponsored ALS agency.

3. Any paramedic with current medical authorization but functioning in a non-clinical position for longer than six months, or unable to function in a clinical position for longer than six months will be required to precept for a minimum of 15 calls and complete a final field evaluation by a member of the YNHHCEMS Operations Committee. Once the final evaluation is complete, full privileges will be restored.

F. CRIMINAL CONVICTION POLICY

(Note: This policy is modeled, with permission, on the National Registry of EMT's felony policy.)

EMS practitioners, pursuant to their state licensure, certification, or national registration, have unsupervised contact with patients, as well as unsupervised access to patients' personal property, at a time when patients are at maximum physical and emotional vulnerability. In this capacity, EMS practitioners are placed in a position of the highest public trust, even above that granted to the other public safety professionals and most other health care providers. While police officers require warrants to enter private property and are subject to substantial oversight when carrying out duties of an intrusive nature, such as "strip searches." EMS practitioners are afforded free access to the homes and bodies of patients who, because of their need for medical attention, are extremely vulnerable and often unable to voice objections to offensive actions, provide an accurate account of events at a later time, or otherwise defend or protect themselves.

Citizens in need of EMS services rely on the EMS system and state licensure, certification or national registration requirements to assure that those who respond to calls for aid and provide the necessary medical and/or transportation services are worthy of this extraordinary trust. Federal law prohibits persons convicted of criminal conduct from serving as police officers, and in YNHHCEMS' view, EMS providers should be held to a similar, if not higher, standard. YNHHCEMS is empowered to grant medical authorization to individual EMS practitioners who meet the applicable criteria, and therefore must ensure that individuals who are granted medical authorization do not present an unreasonable risk to public safety and are otherwise worthy of the high degree of public trust that is placed in them.

1. General Denial:

Medical authorization of individuals convicted of certain crimes presents an unreasonable risk to public health and/or safety. Thus, individuals who have been convicted of any of the following types of crimes are not eligible for medical authorization at any level, and shall have their applications denied or their authorization revoked, as applicable:

- A felony involving sexual misconduct where the victim's failure to affirmatively consent is an element of the crime (e.g., forcible rape).
- A felony involving the sexual or physical abuse or assault of children, the elderly or the infirm, including but not limited to sexual misconduct with a child, making or distributing child pornography or using a child in a sexual display, incest involving a child or assault on an elderly or infirm person.
- Any crime in which the victim is a person whose care is entrusted to YNHHCEMS (e.g., an

out-of-hospital patient or a patient or resident of a health care facility), including but not limited to abuse, neglect, theft or financial exploitation.

Revocation of medical authorization shall be effective immediately upon documentation or determination of conviction of any of the above.

2. **Presumptive Denial**

Medical authorization of the following individuals will be denied or revoked except in extraordinary circumstances, and then will be granted only if MIC Medical Director determines, based on clear and convincing evidence, that such authorization will not pose an unreasonable risk to public health and/or safety:

- Individuals who have been convicted of any crime and who are currently incarcerated, on work release, or on probation or parole.
- Individuals convicted of any of the following crimes, unless at least five years have passed since the conviction OR at least five years have passed since release from custodial confinement, whichever occurs later
- A serious crime of violence against any person, including but not limited to assault or battery with a dangerous weapon, aggravated assault and battery, murder or attempted murder, voluntary manslaughter, kidnapping, robbery of any degree or arson.
- A crime involving any controlled substance, including but not limited to unlawful possession or distribution, or intent to distribute unlawfully, any Schedule 1 through V drug as determined by the Uniform Controlled Dangerous Substances Act.
- A serious crime against property, including but not limited to grand larceny, burglary, embezzlement or insurance fraud.
- Any crime involving sexual misconduct.

The MIC Medical Director's decision shall be final.

3. **Discretionary Denial**

Notwithstanding any other provisions of this policy, the MIC Medical Director may, in his or her sole discretion, deny an individual's application for medical authorization where such individual has been convicted of any other crime (not including minor traffic violations) not specified in this Policy. In determining whether denial of such individual's application is appropriate, the MIC Medical Director may consider the following factors:

- The seriousness of the crime;
- Whether the crime relates directly to the delivery of patient care;
- The period of time that has elapsed since the crime was committed;
- Whether the crime involved violence to, or abuse of, another person;
- Whether the victim of the crime was a minor or a person of diminished capacity;
- Whether the applicant's actions and conduct since the crime occurred are consistent with the holding of a person of public trust.

The MIC Medical Director may consider additional factors as are appropriate under the circumstances.

EMS Provider Remediation Policy

The following policy statement outlines an escalating remediation program for EMS providers whose patient care involves protocol, policy, or procedure violations. These violations include but are not limited to protocol violations, inappropriate downgrades to basic life support (BLS) care, inappropriate invitations or acceptance of patient refusals, failure to recognize a critical condition (stroke, STEMI, etc.), and any other negligent or inappropriate care of patients that resulted or could reasonably have resulted in poor patient outcomes.

This policy is not designed to apply to cases of professional misconduct (drug diversion, assault, etc.) but is reserved for clinical errors.

If YNHH CEMS medical direction establishes through a QA/QI investigation that an EMS provider has provided inadequate or negligent medical care of a patient as outlined above, the following steps will be taken in sequence:

1. For the initial violation, the EMS provider will be subject to remediation in protocols, policies and procedures. This may include a formal course, informal didactics, or shadowing experience. A written warning will be given to the medic, that service's EMS Chief, and a copy placed in the provider's QA file.

2. A second violation of protocols, policies or procedures within one year after the initial warning will result in suspension of the provider's medical authorization until:

Paramedic: The paramedic must complete at least 15 PFI-supervised ALS calls. The PFI or PFIs will be assigned by YNHH CEMS. The supervising PFI will be notified of the preceptee's identified issue and is expected to maintain confidentiality as to the focus of the remediation while performing the assessment. On these calls, the precepting paramedic must provide ALS care from the scene to ED arrival. Upon completion of this remedial precepting, the medic must submit the PFI's evaluations for each patient encounter. These will be reviewed and approved by YNHH CEMS, following which a final ride and sign-off with an EMS physician or physician assistant will be performed prior to restoration of medical authorization. Failure to be signed off by PFIs or the EMS physician/PA will require additional training and supervised ride time to be determined by YNHH CEMS. The number of supervised ALS calls during remediation is a minimum and is less important than the PFI assessment that the medic is competent in all domains. There will be no final physician/PA rides in the absence of that PFI assessment that the provider is competent and ready for the final ride.

EMR/EMT: The EMR/EMT must complete at least 15 calls supervised by either a PFI or a senior EMT approved by the EMS agency and YNHH CEMS (e.g. a Field Training Officer). The EMT must submit the preceptor's evaluations for each patient encounter. These will be reviewed and approved by YNHH CEMS prior to the restoration of medical authorization. Failure to be signed off by PFIs or senior EMT will require additional training

and supervised ride time.

3. Additional violations of YNHH CEMS protocols, policies or procedures within a year of remedial precepting and restoration of medical authorization will result in revocation of medical authorization.

4. CEMS reserves the right to offer or require alternative options for clinical remediation depending on specific circumstances, identified deficiencies, and previous experience

YNHH CEMS Scope of Practice

Airway Management	EMR	EMT	PARAMEDIC
BVM	X	X	X
Chest Tube Maintenance			X
Cleared, Opened, Heimlich	X	X	X
Combitube			X
CPAP			X
Endotracheal Intubation			X
Endotracheal Suctioning			X
KING LT-D			X
Laryngeal Mask Airway			X
Nasogastric Tube			X
Nasopharyngeal Airway	X	X	X
Nasotracheal Intubation			X
Nebulizer Treatment			X
Needle Decompression			X
Oral Suctioning	X	X	X
Oropharyngeal Airway	X	X	X
Oxygen Administration	X	X	X
PEEP		X	X
Pulse Oximetry		X	X
Rapid Sequence Intubation			
Tracheostomy Maintenance			X
Ventilator Operation			X
Surgical & Percutaneous Cricothyrotomy			X

Cardiac Management	EMR	EMT	PARAMEDIC
Application of 12 Lead ECG			X
Application of 3 or 4 lead ECG			X
CPR	X	X	X
Defibrillation - AED	X	X	X
Defibrillation - Manual			X
Interpretation of 12 Lead ECG			X
Interpretation of 3 or 4 lead ECG			X

Synchronized Cardioversion			X
Transcutaneous Pacing			X

Airway Management	EMR	EMT	PARAMEDIC
BVM	X	X	X
Capnography			X
Cleared, Opened, Heimlich	X	X	X
CPAP			X
Endotracheal Intubation			X
Endotracheal Suctioning			X
King LT-D			X
Laryngeal Mask Airway			X
Nasogastric Tube			X
Nasopharyngeal Airway	X	X	X
Nebulizer Treatment			X
Needle Decompression			X
Oral Suctioning	X	X	X
Oropharyngeal Airway	X	X	X
Oxygen Administration	X	X	X
Percutaneous Cricothyrotomy			X
Pulse Oximetry		X	X
Tracheostomy Maintenance			X
Ventilator Operation			X

Vascular Access	EMR	EMT	PARAMEDIC
Blood Draw			X
Blood Glucose Analysis		X	X
Central Line Access			X
Intraosseous			X
Peripheral Venous Access			X

Medication Administration Route	EMR	EMT	PARAMEDIC
Auto Injector		X	X
Endotracheal			X
Inhalation		MDI	X

Intramuscular		X	X
Intraosseous			X
Intravenous			X
Intravenous Pump			X
Oral		X	X
Rectal		Assist Diastat	X
Subcutaneous			X

OTHER SKILLS	EMR	EMT	PARAMEDIC
Advanced Spinal Assessment		X	X
Burn Care	X	X	X
Cervical Spinal Immobilization	Manual Stabilization	X	X
Childbirth	X	X	X
Cold Pack	X	X	X
Extrication		X	X
Eye Irrigation (Morgan Lens)			X
Hot Pack	X	X	X
PEEP		X	X
Restraints - Pharmacological			X
Restraints - Physical		X	X
Spinal Immobilization - Lying (Long board)	Manual Stabilization	X	X
Spinal Immobilization - Seated (K.E.D.)	Manual Stabilization	X	X
Spinal Immobilization - Standing	Manual Stabilization	X	X
Splinting	Manual Stabilization	X	X
Splinting - Traction	Manual Stabilization	X	X
Stroke Scale		X	X
Temperature		X	X
Wound Care - Occlusive Dressing	X	X	X
Wound Care - Pressure Bandage	X	X	X
Wound Care - Tourniquet	X	X	X
Wound Care - Wound Packing	X	X	X

Epinephrine Infusion Chart

MCG/MIN	GTTS/MIN	ML/HR
1	5	15
2	10	30
3	15	45
4	20	60
5	25	75
6	30	90
7	35	105
8	40	120
9	45	135
10	50	150

MIX 1MG OF EPINEPHRINE IN A 250cc BAG OF NS (4 MCG/ML CONCENTRATION)

- Epinephrine infusion 2-10 micrograms/minute until symptoms resolve. Start low titrate to SBP >90.
- Must be given via Pump/FRD
- Yellow= Dial-A-Flow Setting (20 gtts/ml)

INDICATIONS

- Refractory Anaphylaxis
- Septic Shock
- Bradycardia
- Post-Resuscitative Care

Norepinephrine Infusion Chart

MCG/MIN	GTTS/MIN	ML/HR
2	3	9
4	5	15
6	8	24
8	10	30
10	13	39
12	15	45
14	18	54
16	20	60
18	23	69
20	25	75
22	28	84
24	30	90
26	33	99
28	35	105
30	38	114

MIX 4MG OF NOREPINEPHRINE IN A 250cc BAG OF NS (16 MCG/ML CONCENTRATION)

- Norepinephrine infusion 1-30 micrograms/minute until symptoms resolve. Start low titrate to SBP >90.
- Must be given via Pump/FRD
- Yellow= Dial-A-Flow Setting (20 gtts/ml)

INDICATIONS

- Septic Shock
- Bradycardia
- Post-Resuscitative Care

Nitroglycerin Infusion Chart

MCG/MIN	ML/HR	MCG/MIN	ML/HR
10	2	210	32
20	3	220	34
30	5	230	35
40	6	240	36
50	8	250	38
60	9	260	39
70	10	270	41
80	12	280	42
90	14	290	44
100	15	300	45
110	17	310	47
120	18	320	48
130	19	330	50
140	21	340	51
150	23	350	53
160	24	360	54
170	26	370	56
180	27	380	57
190	29	390	59
200	30	400	60

100 MG/250ML BOTTLE (400 MCG/1ML CONCENTRATION)

- Must be given via Pump/FRD
- Yellow= Dial-A-Flow Setting (20 gtts/ml). 0.5ml increments are rounded up to nearest whole number.

INDICATIONS/DOSING

- **Acute Coronary Syndrome**
  - 10 mcg/minute if symptoms persist after 3rd SL nitroglycerin. Increase by 10 mcgs/minute every 5 minutes while symptoms persist and systolic blood pressure remains > 100 mmHg

- **Congestive Heart Failure**
  - 20 mcg/minute; increase by 10-20 mcg/minute every 3-5 minutes while symptoms persist and systolic blood pressure > 100 mmHg. Generally accepted maximum dose: 400 mcg/minute.