New Hampshire Department of Safety

Division of Fire Standards & Training
And
Emergency Medical Services

Administrative Packet for

Rapid Sequence Intubation

The Role of the NH
EMT-Paramedic

September 2007

NH Fire Standards & Training and Emergency Medical Services
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RSI Quality Management Qualifiers

Purpose: The purpose of these qualifiers is to allow an agency to determine whether they are capable and ready to implement a Rapid Sequence Intubation (RSI) program. As all should know, performing an RSI is a serious event with serious complications. Any agency that chooses to implement the program must:

-Have a quality management program in place that includes input from their medical director.

-Produce documentation showing that the service's providers are competent in airway management including BLS management, endotracheal intubation, and rescue airways.

-Have rescue airway and CPAP programs in place.

-Recognize other potential resources that might assist the agency with their RSI efforts.

Qualifier Questions:

1. How does our quality management system work pertaining to airway management?
    a. How do we monitor airway management at our agency?
    b. How is our Medical Director involved in airway quality management?
    c. Do we provide quality feedback to our providers on all intubations?
    d. Have we ever missed an esophageal intubation?
        i. What would we do if such an event happened?
        ii. Do we have all the equipment necessary to prevent such an event?
    e. How does our agency interact with our medical resource hospital in matters pertaining to airway management?
        i. What resources will they provide?
        ii. Do we have access to an OR or similar facility for remediation or training?

2. How many patients, who need to be intubated, arrived at the hospital successfully intubated?
    a. How many patients should have been intubated?
    b. How many received rescue airway devices?
    c. How many patients, who needed to be intubated, were:
        i. in cardiac arrest?
        ii. live patients?
        iii. could have qualified for RSI?
    d. How many patients were nasally intubated?
        i. How many of the patients were suffering from CHF?
        ii. Do we use CPAP?
            1. Why not?
3. Are our providers competent in:
    a. BLS Airway Management (BVM, suction, oral and nasal airways)
    b. Rescue Airways (blind insertion airways)

c. CPAP
d. Waveform Capnography
e. ALS Airways (endotracheal intubation, surgical or needle cric)

RSI Prerequisite

LICENSURE:
Paramedic

EXPERIENCE
≥ 2 Year
5 field tubes

EDUCATION:
RSI Program approved by the Medical Control Board; to include patient selection, airway management including backup devices and pharmacology.
Medical Director or designee to oversee program

MEDICAL DIRECTION
Direct oversight of the program
Recommendation for program
QM Reviews all airway calls

RECOMMENDATION
The Medical Director and the Head of EMS Agency must mutually agree to participate in the program.

QM/PI PROGRAM
Standardized forms with elements to be reviewed (to be determined by the MCB)
Medical Director to review all calls where RSI was performed or attempted.
Remediation: 2 people to look at problem calls (Medical Director and NH EMS) and come up with a consensus as to remediation.

REPORTING
Monthly report to NH EMS via TEMSIS
NH EMS will report to MCB

COMPETANCE/EXPIRATION
Every 2 years
10 tubes (≥ 5 live), remaining in Simlab with medically directed scenarios
Refresher Program
Examination (proctored and closed book)

RESOURCES
MRH agreement with participating hospital which includes access to necessary inter-departments. (example: E.R, IV team, O.R, Respiratory, etc.)
Medications, as needed
Equipment (same as needed for ALS truck)
Waveform Capnography
CPAP
Personnel: 1 paramedic and 1 EMT crew member educated with the RSI Assistant Program as approved by the Medical Control Board

NEW HAMPSHIRE
DEPARTMENT OF SAFETY
DIVISION OF FIRE STANDARDS AND TRAINING &
EMERGENCY MEDICAL SERVICES
NH EMS PREREQUISITE APPLICATION
PLEASE PRINT (BLACK INK) OR TYPE

PROTOCOL NAME_____PROTOCOL NUMBER_____

LEGAL NAME OF UNIT _____UNIT LICENSE NUMBER_____

BUSINESS STREET ADDRESS_____
STREET CITY STATE ZIP CODE

MAILING ADDRESS_____
STREET/PO BOX CITY STATE ZIP CODE

HEAD OF UNIT _____TITLE_____

CONTACT TELEPHONE_____FAX (IF AVAILABLE)_____

EMAIL ADDRESS (IF AVAILABLE)_____

MEDICAL RESOURCE HOSPITAL _____

MEDICAL DIRECTOR OR DESIGNEE_____

MEDICAL DIRECTOR PHONE_____

TYPE OF APPLICATION (CIRCLE) INITIAL RENEWAL

_____ _____
HEAD OF UNIT DATE MEDICAL DIRECTOR OR DESIGNEE DATE

ATTACHED IS SUPPORTING DOCUMENTION FOR ALL ELEMENTS LISTED IN Saf-C 5922.01 (e) WITH A LIST OF LICESNED PROVIDERS TRANED UNDER Saf-C 5922.

PART Saf-C PATIENT CARE PROTOCOLS

Saf-C 5922.01 Procedures…

(d) Prerequisites required by protocol shall be established by the EMS Medical Control Board in accordance with RSA 153:A-2 XVI (a).

(e) Protocol prerequisites, when required, shall address each of the following elements:

(1) The protocol title and number to which the prerequisites relate;

(2) The provider licensure level necessary to carry out the protocol;

(3) The name of the medical director, or designee, who will oversee the training module;

(4) The MRH and EMS head of unit recommendations to the division;

(5) The provider experience criteria;

(6) All quality management program elements;

(7) Reporting requirements for monitoring and skill retention;

(8) Equipment and staff support resources necessary;

(9) Provider renewal criteria, and

(10) Training requirements.

INITIAL
Rapid Sequence Intubation (RSI)
Prerequisites
Checklist

_____**1. PROTOCOL TITLE AND NUMBER:**
Complete Application

_____**2. PROVIDER LICENSE LEVEL NECESSARY TO CARRY OUT THE PROTOCOL:**
Provide list of eligible providers

_____ **3. RECOMMENDATIONS:**
Attach letters of recommendation from Medical Director and Head of Unit

_____ **4. THE PROVIDER EXPERIENCE CRITERIA**
Provide written proof for each paramedic the following:
≥2 years as a paramedic
≥5 field tubes (not including intubations performed while a student)

_____ **5. ALL QUALTIY MANAGEMENT PROGRAM ELEMENTS**
Complete the RSI Qualifiers

_____ **6. REPORTING REQUIREMENTS FOR MONITORING and SKILL RETENTION**
Ability to report through TEMSIS or equivalent

_____ **7. EQUIPMENT AND STAFF SUPPORT RESOURCES NECESSARY:**
Provided documentation of MRH agreement with participating hospital which includes access to necessary inter-departments. (ER, OR, Respiratory, etc.) and medications.
Equipment: Provided documentation through appropriate statement and/or purchase receipts

_____**8. TRAINING REQUIREMENT**
Provide proof of training through course completion roster signed by Medical Director

RENEWAL
Rapid Sequence Intubation (RSI)
Prerequisites
Checklist

_____**1. PROTOCOL TITLE AND NUMBER:**
Complete Application

_____**2. PROVIDER LICENSE LEVEL NECESSARY TO CARRY OUT THE PROTOCOL:**
Provide list of eligible providers

_____ **3. RECOMMENDATIONS:**
Attach letters of recommendation from Medical Director and Head of Unit

_____ **4. THE PROVIDER EXPERIENCE CRITERIA**
Provide written proof for each paramedic the following:
Provide proof eligible providers previously participated in RSI program
10 tubes (≥ 5 live), remaining in Simlab with medically directed scenarios

_____ **5. ALL QUALTIY MANAGEMENT PROGRAM ELEMENTS**
Verify previous years reporting completed

_____ **6. REPORTING REQUIREMENTS FOR MONITORING and SKILL RETENTION**
Ability to report through TEMSIS or equivalent

_____ **7. EQUIPMENT AND STAFF SUPPORT RESOURCES NECESSARY:**
Provided documentation of MRH agreement with participating hospital which includes access to necessary inter-departments. (ER, OR, Respiratory, etc.) and medications.
Equipment: Provided documentation through appropriate statement and/or purchase receipts

_____**8. TRAINING REQUIREMENT**
Provide proof of refresher training through course completion roster signed by Medical Director

Rapid Sequence Intubation
Quality Management

1. Qualifiers

2. Education Modules (includes additional documentation requirements)

3. TEMSIS Report
- Time to patient
- Time to intubation
- Number of attempts vs. success
- Overall success
- Demographics of patients
- Demographics of EMS events leading to RSI
- Demographics of provider
- Failed Airways (with RSI and without RSI)
- Demographics of tubes for: Unit and States

3. Review by Medical Director
- Standardized Review Process with TEMSIS and Reporting form.
    - We will be using data element as suggested from "Recommended Guidelines for Uniform Reporting of Data from Out-of-Hospital Airway Management: Position Statement of the National Association of EMS Physicians". Wang, et al. Prehospital Emergency Care January/March 2004, Volume 8/Number 1
- Remediation if necessary

4. Report to Bureau of EMS
- TEMSIS
- Medical Director's Review Report

5. Report to Unit
- TEMSIS
- Medical Director's Review Report

6. Biannual Refresher Education

NAEMSP AIRWAY MANAGEMENT REPORTING TEMPLATE

Patient demographic information:

Date: _____/_____/_____ Dispatch Time: _____:_____ am / pm

EMS Service Name/No.:_____

Pt age (yr): _____ Patient sex: ✍ M ✍ F

1. Indication for invasive airway management (check one):

✍ Apnea or agonal respirations
✍ Airway reflex compromised
✍ Ventilatory effort compromised
✍ Injury/illness involving airway
✍ Adequate airway reflexes/vent effort, but potential for compromise
✍ Other _____

2. Was endotracheal intubation (ETI) attempted?

✍ Yes ✍ No

3. If ETI not attempted – alternate method of airway support:

✍ Bag-Valve-Mask (BVM) ✍ Combitube
✍ Needle Jet Ventilation ✍ LMA
✍ Open Cricothyroidotomy ✍ Other Cricothyroidotomy
✍ CPAP/BiPAP ✍ Not Applicable (ETI Attempted)
✍ Other: _____

4-6. Patient subsets (Select Yes/No):

Is patient in cardiopulmonary arrest on intubation? ✍ Yes ✍ No
Is patient a victim of trauma? ✍ Yes ✍ No
Is patient *under* 18 years old? ✍ Yes ✍ No

7-11. Vital signs prior to ETI attempt (leave blank if not obtained):

Pulse: ____ beats/min Blood Pressure: ____ / ____ mmHg
Resp Rate: ____ breaths/min SaO_2: ____ %

12-14. Glasgow Coma Score (GCS) before intubation:

Eye: ✍ none (1) ✍ pain (2) ✍ verbal (3) ✍ spontaneous (4)
Verbal: ✍ none (1) ✍ incomprehensible (2) ✍ inappropriate words (3) ✍ disoriented (4) ✍ oriented (5)
Motor: ✍ no response (1) ✍ extends to pain (2) ✍ flexes to pain (3) ✍ withdraws from pain (4) ✍ localizes pain (5) ✍ obeys commands (6)

15. Monitoring and treatment modalities concurrent with intubation (check *all* that apply):

✍ ECG monitor ✍ Pulse-Oximetry
✍ IV access ✍ C-spine immobilization
✍ CPR (chest compressions) ✍ Gum Elastic Bougie
✍ BAAM ✍ Endotrol Tube
✍ Other: _____

17. Level of training of each rescuer attempting intubation:

Rescuer	Level of Training (check one)
A†	✍ EMT-P ✍ EMT-I ✍ EMT-B ✍ Medic Student ✍ Nurse/PHRN ✍ Phys Asst ✍ MD/DO (attend) ✍ MD/DO (res) ✍ Other: _____
B†	✍ EMT-P ✍ EMT-I ✍ EMT-B ✍ Medic Student ✍ Nurse/PHRN ✍ Phys Asst ✍ MD/DO (attend) ✍ MD/DO (res) ✍ Other: _____
C†	✍ EMT-P ✍ EMT-I ✍ EMT-B ✍ Medic Student ✍ Nurse/PHRN ✍ Phys Asst ✍ MD/DO (attend) ✍ MD/DO (res) ✍ Other: _____

16-18. Provide information for each laryngoscopy attempt.
FOR ORAL ROUTE, EACH INSERTION OF BLADE (LARYNGOSCOPY) IS ONE "ATTEMPT."
FOR NASAL ROUTE, EACH PASS OF TUBE PAST NARES IS ONE "ATTEMPT."

Attempt	16. ETI Method	17. Who attempted?†	18. Was attempt successful?
#1	✍ OTI ✍ NTI ✍ Sedation ✍ RSI	✍A ✍B ✍C	✍ Yes ✍ No
#2	✍ OTI ✍ NTI ✍ Sedation ✍ RSI	✍A ✍B ✍C	✍ Yes ✍ No
#3	✍ OTI ✍ NTI ✍ Sedation ✍ RSI	✍A ✍B ✍C	✍ Yes ✍ No
#4	✍ OTI ✍ NTI ✍ Sedation ✍ RSI	✍A ✍B ✍C	✍ Yes ✍ No

Indicate drugs given to facilitate intubation:

✍ Midazolam ____ mg ✍ Diazepam ____ mg
✍ Lidocaine ____ mg ✍ Morphine ____ mg
✍ Etomidate ____ mg ✍ Succinylcholine ____ mg
✍ Atropine ____ mg ✍ Topical Spray
✍ Other – Specify: _____ - ____ mg
✍ Other – Specify: _____ - ____ mg

19-24. Endotracheal tube confirmation.

19. Auscultation	✍ Tracheal Placement	✍ Esophageal Placement	✍ Indeterminate	✍ Not Assessed	✍ Tube not placed.
20. Bulb Aspiration	✍ Tracheal Placement	✍ Esophageal Placement	✍ Indeterminate	✍ Not Assessed	✍ Tube not placed.
21. Syringe Aspiration	✍ Tracheal Placement	✍ Esophageal Placement	✍ Indeterminate	✍ Not Assessed	✍ Tube not placed.
22. Colorimetric $ETCO_2$	✍ Tracheal Placement	✍ Esophageal Placement	✍ Indeterminate	✍ Not Assessed	✍ Tube not placed.
23. Digital $ETCO_2$	✍ Tracheal Placement	✍ Esophageal Placement	✍ Indeterminate	✍ Not Assessed	✍ Tube not placed.
24. Waveform $ETCO_2$	✍ Tracheal Placement	✍ Esophageal Placement	✍ Indeterminate	✍ Not Assessed	✍ Tube not placed.
Other: _____	✍ Tracheal Placement	✍ Esophageal Placement	✍ Indeterminate	✍ Not Assessed	✍ Tube not placed.

25. Peak ETCO2 value: _____ ✍ Indeterminate

26. Was ETI successful for the overall encounter (on transfer of care to ED or helicopter)?

✍ Yes ✍ No

27. Who determined the final placement (location) of ET tube?

✍ Rescuer performing intubation.
✍ Another rescuer on the same team.
✍ Receiving helicopter crew.
✍ Receiving hospital team.
✍ Other: _____

28-32. Vital signs after intubation attempt:

Pulse: ____ beats/min Blood Pressure: ____ / ____ mmHg
Resp Rate: ____ breaths/min SaO_2: ____ %

33. Critical complications encountered during airway management (Check *all* that apply):

✍ Failed intubation effort.
✍ Injury or trauma to patient from airway management effort.
✍ Adverse event from facilitating drugs.
✍ Esophageal intubation – delayed detection (after tube secured).
✍ Esophageal intubation – detected in ED.
✍ Tube dislodged during transport/patient care.
✍ Other: _____

34. If all intubation attempts FAILED, indicate suspected reasons for failed intubation (check all that apply):

✍ Inadequate patient relaxation ✍ Orofacial trauma.
✍ Inability to expose vocal cords. ✍ Secretions/blood/vomit.
✍ Difficult pt anatomy. ✍ Unable to access pt.
✍ ETI attempted, but arrived at destination facility before accomplished.
✍ Not applicable – Successful field ETI ✍ Other: _____

35. If all intubation attempts FAILED, indicate secondary (rescue) airway technique used (check all that apply):

✍ Bag-Valve-Mask (BVM) Ventilation ✍ Needle/Jet Ventilation
✍ Combitube ✍ Open Cricothyroidotomy
✍ Not applicable – Successful field ETI ✍ Other: _____

36. Did secondary (rescue) airway result in satisfactory ventilation?

✍ Yes ✍ No ✍ Not applicable

37-38. Airway Management Times

Time of decision to intubate: _____:_____ am / pm
Time of successful intubation: _____:_____ am / pm
Time intubation abandoned: _____:_____ am / pm

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