

# NEMSIS V3 Suggested List – eProcedure.03 - Procedure

---

## Date

January 27, 2012 (FINAL)

April 9, 2013 (Updated list)

April 18, 2013 (corrected code for Application of cervical collar)

## Authors

Karen E. Jacobson – NEMSIS Director

N. Clay Mann – NEMSIS P.I.

Keith R. Davis – NEMSIS Data Architect

NASEMSO Data Managers Council

## eProcedures.03 - Procedure

The code list associated with eProcedures.03 (Procedure) represents a list of values found in Systematized **N**omenclature of **M**edicine -- **C**linical **T**erms (SNOMED CT). The process for gaining access to the SNOMED CT code values is provided below.

## Suggested List

The suggested code list for eProcedures.03 (Procedure) is represented by SNOMED CT Procedure codes. The term types utilized for the suggested procedures are preferred terms (PT). There are synonyms for each procedure code that can be used to display the procedure “concept”. [In addition, the updated suggested list of procedures has three new columns: procedure category, procedure label by category, and suggested procedure label.](#) The “category” option was created in case EMS Software Developers choose to initially display a category for procedures. The “procedure label by category” option is similar to the NEMSIS Version 2 procedure labeling. [The “suggested procedure label” option was created to provide EMS friendly language.](#) The specific 105 suggested SNOMED CT codes are listed at the end of this document, beginning on page four.

When the procedure suggested list was developed, the primary goal within SNOMED CT was to utilize “Therapeutic or Preventive Procedure” codes to identify EMS procedures. This was not always possible to accurately represent procedures performed by EMS professionals in the pre-hospital setting. Thus, additional code types within SNOMED CT were utilized. However, for consistency in reporting, it is important that Software Developers expanding the list of EMS procedures rely on the use of “Therapeutic or Preventive Procedure” codes. If it is necessary to utilize other code types, the NEMSIS TAC suggests utilizing the following limited hierarchy to identify a code:

1. Therapeutic or Preventive Procedure
2. Diagnostic Procedure
3. Laboratory Procedure
4. Health Care Activity

If an appropriate code cannot be found in among these code types, the Software Developer should contact the NEMESIS TAC, who will work with SNOMED to add an appropriate code to the SNOMED standard. The suggested SNOMED CT procedure list, available on the NEMESIS download site, provides codes in pipe-delimited format. The list of procedure descriptions is also provided below [based on Category](#).

## Licensed “Suggested Lists”

The U.S. National Library of Medicine provides access to the SNOMED CT code values through the Unified Medical Language System (UMLS). An applicant must accept the terms of the UMLS Metathesaurus License and create a UMLS Terminology Services (UTS) account for access to UMLS datasets and terminology browsers.

More information can be found at: <http://www.nlm.nih.gov/databases/umls.html>.

The NEMESIS TAC may only distribute suggested lists with specific value codes from the UMLS system to entities licensed through the UMLS system. Thus, each software developer must seek licensing and provide proof of licensing before gaining access to all of the pre-defined suggested lists available through the NEMESIS TAC.

The SNOMED CT Concept Identifier codes are the only codes that can be shared publicly in tandem with the concept names. Similar to the other UMLS datasets, the UMLS experts recommend the use of one primary code (e.g. SNOMED - Concept ID) to identify a specific procedure. SNOMED CT allows for multiple similar descriptions /names for the same UMLS identified primary code (concept) which in turn provides a synonym for use. Together the Concept ID and TTY are used to define and identify a specific code and the corresponding description for the procedure.

## Access to “Suggested List” Archive Files

Access to suggested code lists will be provided on a special section of the NEMESIS TAC’s download site. A licensed user will be able to login to the site and download the appropriate archive file (SNOMED CT, RxNorm, ICD-10-CM, etc).

The UMLS license verification service helps determine if the remote user has a license to use and/or distribute certain code sets. If the user does not have a current license, access to the “suggested lists” archive will be denied.

The “suggested list” files will be zipped archives that are automatically created each time one of the licensed code databases is updated in the NEMESIS master data repository.

## Viewing and Using the “Suggested List” Archive Files

The downloaded suggested list appears in a pipe-delimited text format. The proper code to utilize is the code with the name of the element and closest to the value description. Please note that the CUI, AUI, and TTY fields are included for reference purposes. These codes allow one to locate the exact code and description in the UMLS Metathesaurus that was selected for inclusion in the suggested list.

The list provides additional fields indicating when a record became active in the NEMSIS TAC’s master data repository as well as the version of the source used for a particular code and description in the suggested list.

## Conclusions

By maintaining a single source of these data and making it available internally as well as to our customers, we improve our data quality and consistency. This will reduce reporting errors in data submissions provided it is used as part of our own and our customer’s data management best practices.

## Unified Medical language System (UMLS) Term Types (TTY)

This is a partial list of Term Types in Source (TTY) from the National Library of Medicine website. The NEMSIS TAC will be using primarily the designated preferred name (PT) and occasionally the hierarchical term (HT) Term Types in its suggested lists. To view the full list of UMLS abbreviations used in data element please visit the National Library of Medicine website: [http://www.nlm.nih.gov/research/umls/knowledge\\_sources/metathesaurus/release/abbreviations.html](http://www.nlm.nih.gov/research/umls/knowledge_sources/metathesaurus/release/abbreviations.html) .

TTY (Term Type in Source)		TTY (Term Type in Source)	
DN	Display Name	HT	Hierarchical term
DO	Domain	LT	Lower Level Term
ET	Entry term	PT	Designated preferred name
HC	Hierarchical class	RT	Designated related term
HD	Hierarchical descriptor		

## SNOMED CT Suggested List for eProcedures.03 - Procedure

The suggested EMS professional procedure descriptions listed below are ordered based on the Procedure Category and then by Procedure Label by Category. The code list, as identified above is based on SNOMED "procedure" codes. The appropriate term type (TTY) code for each description is preferred term (PT).

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMSIS Version 3 SNOMED Procedure Description	NEMSIS Version 3 - Explanation of Inclusion
1	Assessment	Assessment: Orthostatic Vital Signs	Orthostatic Vital Signs	PT	425058005	Taking orthostatic vital signs	
2	Assessment	Assessment: Patient Assessment	Patient Assessment	PT	422618004	Continuous physical assessment	
3	Cardiac	Cardiac: 3 Lead ECG Obtained	3 Lead ECG Obtained	PT	428803005	3 lead electrocardiographic monitoring	
4	Cardiac	Cardiac: 12 Lead ECG Obtained	12 Lead ECG Obtained	PT	268400002	12 lead ECG	
5	Cardiac	Cardiac: 15 Lead ECG Obtained	15 Lead ECG Obtained	PT	429163003	15 lead electrocardiographic monitoring	
6	Cardiac	Cardiac: 18 Lead ECG Obtained	18 Lead ECG Obtained	PT	425808002	18 lead electrocardiographic monitoring	
7	Cardiac	Cardiac: Cardiopulmonary Resuscitation (Manual)	Cardiopulmonary Resuscitation (Manual)	PT	89666000	Cardiopulmonary resuscitation	

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
8	Cardiac	Cardiac: Cardiopulmonary Resuscitation (Mechanical Device)	Cardiopulmonary Resuscitation (Mechanical Device)	PT	429283006	Mechanically assisted chest compression	Clarification: includes thumper, band, vest, plunger devices.
9	Cardiac	Cardiac: Cardioversion	Cardioversion	PT	250980009	Cardioversion	
10	Cardiac	Cardiac: Defibrillation (Manual)	Defibrillation (Manual)	PT	426220008	External ventricular defibrillation	
11	Cardiac	Cardiac: Intra-Aortic Balloon Pump Maintenance	Intra-Aortic Balloon Pump Maintenance	PT	34475007	Intraaortic balloon pump maintenance	
12	Cardiac	Cardiac: Left Ventricular Assist Device Maintenance	Left Ventricular Assist Device Maintenance	PT	386237008	Circulatory care: mechanical assist device	Descr: To document the maintenance of or problems with the Ventricular Assist Device (Left or Right)
13	Cardiac	Cardiac: Pacing (External and Internal)	Pacing (External and Internal)	PT	18590009	Cardiac pacing	
14	Cardiac	Cardiac: Pericardiocentesis	Pericardiocentesis	PT	309849004	Pericardiocentesis	
15	Cardiac	Cardiac: Precordial Thump	Precordial Thump	PT	225708008	Precordial thump	
16	Cardiac	Cardiac: Vagal Maneuver	Vagal Maneuver	PT	128968000	Vagal stimulation	
17	CNS	CNS: Epidural Catheter Maintenance	Epidural Catheter Maintenance	PT	424432007	Epidural catheter maintenance	
18	CNS	CNS: Intracranial Pressure Monitoring	Intracranial Pressure Monitoring	PT	230937006	Procedure for monitoring intracranial pressure	Clarification: Per NIH this can covers ICP, Subdural Screw, Epidural Sensor.
19	CPR	CPR: Impedance Threshold Device	Impedance Threshold Device	PT	441893003	Active compression decompression cardiopulmonary resuscitation with use of inspiratory impedance threshold device	Descr: CPR with Impedance Threshold Device
20	General	General: Contact Medical Control	Contact Medical Control	PT	304562007	Informing doctor	AKA/SY: Contacting physician

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
21	General	General: Decontamination	Decontamination	PT	409530006	Decontamination	
22	General	General: Eye Irrigation	Eye Irrigation	PT	49999004	Irrigation of eye	
23	General	General: Hypothermia Induction Therapy	Hypothermia Induction Therapy	PT	430189000	Hypothermia induction therapy	Clarification: Includes cooled IV fluids.
24	General	General: Monitoring of Preexisting Devices and Interventions	Monitoring of Preexisting Devices and Interventions	PT	182777000	Monitoring of patient	
25	General	General: Patient Cooling (Cold Pack or General)	Patient Cooling (Cold Pack or General)	PT	431774007	Active external cooling of subject	
26	General	General: Patient Warming (Warm Pack or General)	Patient Warming (Warm Pack or General)	PT	431949004	Active external warming of subject	
27	General	General: Restraint Applied (Chemical)	Restraint Applied (Chemical)	PT	406164000	Chemical restraint	
28	General	General: Restraint Applied (Physical)	Restraint Applied (Physical)	PT	386423001	Physical restraint	
29	GI/GU	GI/GU: Nasogastric Tube Insertion	Nasogastric Tube Insertion	PT	87750000	Insertion of nasogastric tube	
30	GI/GU	GI/GU: Gastro Intestinal Tube Maintenance	Gastro Intestinal Tube Maintenance	PT	384745002	Maintenance of gastrointestinal tract tube	Clarification: Used to cover maintenance of Oro and Naso gastric tubes.
31	GI/GU	GI/GU: Orogastic Tube Insertion	Orogastic Tube Insertion	PT	235425002	Insertion of orogastric tube	
32	GI/GU	GI/GU: Urinary Catheterization	Urinary Catheterization	PT	410024004	Insertion of catheter into urinary bladder	
33	Movement	Movement: Cervical Collar Applied for Stabilization	Cervical Collar Applied for Stabilization	PT	<a href="#">49689007</a>	Application of cervical collar	
34	Musculoskeletal	Musculoskeletal: Pressure Trouser Application	Pressure Trouser Application	PT	448970001	Application of pressure trouser	

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
35	Musculoskeletal	Musculoskeletal: Reduction of Dislocated Joint	Reduction of Dislocated Joint	PT	58825001	Closed reduction of dislocation	AKA/SY: Manual reduction of dislocation
36	Musculoskeletal	Musculoskeletal: Spinal Immobilization (Cervical)	Spinal Immobilization (Cervical)	PT	398041008	Cervical spine immobilization	
37	Musculoskeletal	Musculoskeletal: Spinal Immobilization (Full)	Spinal Immobilization (Full)	PT	426498007	Stabilization of spine	
38	Musculoskeletal	Musculoskeletal: Splinting (General)	Splinting (General)	PT	79321009	Application of splint	
39	Musculoskeletal	Musculoskeletal: Splinting (Pelvic Binder/Sling)	Splinting (Pelvic Binder/Sling)	PT	182556001	Pelvic sling	
40	Musculoskeletal	Musculoskeletal: Splinting (Traction)	Splinting (Traction)	PT	302488007	Application of traction using a traction device	SYN: Application of traction system
41	OB	OB: Childbirth	Childbirth	PT	236973005	Delivery procedure	SYN: Birthing procedure
42	OB	OB: Fetal Heart Monitor Surveillance	Fetal Heart Monitor Surveillance	PT	36708009	External fetal monitor surveillance	
43	Respiratory	Respiratory: Airway Device Removal	Airway Device Removal	PT	232708009	Removal of device from airway	
44	Respiratory	Respiratory: Airway Opened	Airway Opened	PT	232664002	Manual establishment of airway	Clarification: This includes chin lift, jaw thrust, etc.
45	Respiratory	Respiratory: Bagged Ventilations (via Mask)	Bagged Ventilations (via Mask)	PT	425447009	Bag valve mask ventilation	
46	Respiratory	Respiratory: Bagged Ventilations (via Tube)	Bagged Ventilations (via Tube)	PT	243140006	Lung inflation by intermittent compression of reservoir bag	AKA/SY: Hand Bagging
47	Respiratory	Respiratory: BiPAP	BiPAP	PT	243142003	Dual pressure spontaneous ventilation support	AKA/SY: BiPAP - Biphaseic pressure airway support
48	Respiratory	Respiratory: Chest Decompression	Chest Decompression	PT	182705007	Tension pneumothorax relief	

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
49	Respiratory	Respiratory: Chest Tube Insertion	Chest Tube Insertion	PT	264957007	Insertion of pleural tube drain	AKA/SY: Insertion of chest tube; Insertion of chest drain; Tube thoracostomy
50	Respiratory	Respiratory: Chest Tube Maintenance	Chest Tube Maintenance	PT	55628002	Maintenance of thoracic drain	AKA/SY: Maintenance of chest tube
51	Respiratory	Respiratory: CPAP	CPAP	PT	47545007	Continuous positive airway pressure ventilation treatment	AKA/SY: CPAP treatment; CPAP - Continuous positive airways pressure
52	Respiratory	Respiratory: Cricoid Pressure Applied	Cricoid Pressure Applied	PT	241726007	Application of cricoid pressure	AKA/SY: Sellick's maneuver
53	Respiratory	Respiratory: Cricothyrotomy (Dilation Device)	Cricothyrotomy (Dilation Device)	PT	232690004	Percutaneous dilatational cricothyroidotomy	
54	Respiratory	Respiratory: Cricothyrotomy (Needle)	Cricothyrotomy (Needle)	PT	232689008	Percutaneous cricothyroidotomy	
55	Respiratory	Respiratory: Cricothyrotomy (Surgical)	Cricothyrotomy (Surgical)	PT	232692007	Open cricothyroidotomy	
56	Respiratory	Respiratory: ETCO2 Colorimetric Detection	ETCO2 Colorimetric Detection	PT	428482009	Colorimetric respired carbon dioxide monitoring	
57	Respiratory	Respiratory: ETCO2 Digital Capnography	ETCO2 Digital Capnography	PT	425543005	Digital respired carbon dioxide monitoring	
58	Respiratory	Respiratory: Foreign Body Removal	Foreign Body Removal	PT	232707004	Removal of foreign body from airway	
59	Respiratory	Respiratory: Heimlich Maneuver	Heimlich Maneuver	PT	23690002	Heimlich maneuver	
60	Respiratory	Respiratory: Intubation (Existing Tracheostomy Stoma)	Intubation (Existing Tracheostomy Stoma)	PT	232685002	Insertion of tracheostomy tube	
61	Respiratory	Respiratory: Intubation (Nasotracheal)	Intubation (Nasotracheal)	PT	232679009	Nasotracheal intubation	



	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
62	Respiratory	Respiratory: Intubation (Orotracheal Through Laryngeal Mask Airway)	Intubation (Orotracheal Through Laryngeal Mask Airway)	PT	418613003	Tracheal intubation through a laryngeal mask airway	
63	Respiratory	Respiratory: Intubation (Orotracheal)	Intubation (Orotracheal)	PT	232674004	Orotracheal intubation	
64	Respiratory	Respiratory: Intubation (Rapid Sequence)	Intubation (Rapid Sequence)	PT	241689008	Rapid sequence induction	
65	Respiratory	Respiratory: Intubation using exchange catheter to place invasive airway	Intubation using exchange catheter to place invasive airway	PT	397874007	Airway exchange catheter procedure	Clarification: Intubation with esophageal bougie type device. SYN: Endotracheal or endobronchial tube change over tube exchange catheter
66	Respiratory	Respiratory: Laryngeal Mask Airway Insertion	Laryngeal Mask Airway Insertion	PT	424979004	Laryngeal mask airway insertion	AKA/SY: LMA - Laryngeal mask airway insertion
67	Respiratory	Respiratory: Laryngoscopy (Direct)	Laryngoscopy (Direct)	PT	78121007	Direct laryngoscopy	
68	Respiratory	Respiratory: Laryngoscopy (Indirect)	Laryngoscopy (Indirect)	PT	673005	Indirect laryngoscopy	
69	Respiratory	Respiratory: Mouth-to-Mask/Mouth Ventilation	Mouth-to-Mask/Mouth Ventilation	PT	243180002	Expired air ventilation	
70	Respiratory	Respiratory: Nasopharyngeal Airway Insertion	Nasopharyngeal Airway Insertion	PT	182692007	Nasopharyngeal airway insertion	
71	Respiratory	Respiratory: Obturator Airway (EOA) Insertion	Obturator Airway Insertion (EOA)	PT	232673005	Obturator airway insertion	
72	Respiratory	Respiratory: Oropharyngeal Airway Insertion	Oropharyngeal Airway Insertion	PT	7443007	Insertion of oropharyngeal airway	

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
73	Respiratory	Respiratory: PEEP Applied	PEEP Applied	PT	45851008	Positive end expiratory pressure ventilation therapy, initiation and management	SYN: PEEP therapy; Positive end expiratory pressure applied.
74	Respiratory	Respiratory: Retrograde Intubation	Retrograde Intubation	PT	397892004	Retrograde intubation	
75	Respiratory	Respiratory: Suction Airway	Suction Airway	PT	230040009	Airway suction technique	AKA/SY: Airway suctioning
76	Respiratory	Respiratory: Supraglottic Airway Insertion (Double Lumen)	Supraglottic Airway Insertion (Double Lumen)	PT	427753009	Insertion of esophageal tracheal double lumen supraglottic airway	
77	Respiratory	Respiratory: Tracheostomy Tube Change	Tracheostomy Tube Change	PT	2267008	Changing tracheostomy tube	
78	Respiratory	Respiratory: Transtracheal Jet Insufflation	Transtracheal Jet Insufflation	PT	448442005	Transtracheal jet ventilation	
79	Respiratory	Respiratory: Ventilator Care and Adjustment	Ventilator Care and Adjustment	PT	385857005	Ventilator care and adjustment	
80	Soft Tissue	Soft Tissue: Burn Care	Burn Care	PT	133901003	Burn care	
81	Soft Tissue	Soft Tissue: Escharotomy	Escharotomy	PT	70177008	Escharotomy	
82	Soft Tissue	Soft Tissue: General Wound Care	General Wound Care	PT	225358003	Wound care	
83	Soft Tissue	Soft Tissue: Hemostatic Agent Application	Hemostatic Agent Application	PT	372045002	Application of chemical hemostatic agents	
84	Soft Tissue	Soft Tissue: Occlusive Dressing Application	Occlusive Dressing Application	PT	22206003	Application of dressing, occlusive plastic	
85	Soft Tissue	Soft Tissue: Pressure Dressing Application	Pressure Dressing Application	PT	26906007	Application of dressing, pressure	
86	Soft Tissue	Soft Tissue: Tourniquet Application	Tourniquet Application	PT	20655006	Application of tourniquet	
87	Soft Tissue	Soft Tissue: Wound Irrigation	Wound Irrigation	PT	225116006	Irrigation of wound	

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
88	Vascular	Vascular: Arterial Cannulation	Arterial Cannulation	PT	392247006	Insertion of catheter into artery	SYN: Arterial line insertion; Arterial catheterization; Catheterization of artery
89	Vascular	Vascular: Arterial Cannulation (Femoral Artery)	Arterial Cannulation (Femoral Artery)	PT	233516009	Femoral artery cannula insertion	
90	Vascular	Vascular: Arterial Cannulation (Umbilical Artery)	Arterial Cannulation (Umbilical Artery)	PT	233519002	Umbilical artery cannula insertion	
91	Vascular	Vascular: Arterial Line Maintenance	Arterial Line Maintenance	PT	422744007	Arterial catheter care	AKA/SY: Arterial line care
92	Vascular	Vascular: Arterial Line Monitoring	Arterial Line Monitoring	PT	77938009	Arterial pressure monitoring, invasive method	
93	Vascular	Vascular: Arterial Puncture for Blood Draw	Arterial Puncture for Blood Draw	PT	55841001	Arterial puncture for withdrawal of blood for diagnosis	
94	Vascular	Vascular: Central Line Maintenance	Central Line Maintenance	PT	226005007	Care of central line	
95	Vascular	Vascular: Central Venous Pressure Monitoring	Central Venous Pressure Monitoring	PT	86265008	Central venous pressure monitoring	SYN: CVP monitoring
96	Vascular	Vascular: External Jugular Vein Catheterization	External Jugular Vein Catheterization	PT	405427009	Catheterization of external jugular vein	
97	Vascular	Vascular: Extremity Vein Catheterization	Extremity Vein Catheterization	PT	392230005	Catheterization of vein	
98	Vascular	Vascular: Femoral Vein Catheterization	Femoral Vein Catheterization	PT	405442007	Catheterization of common femoral vein	
99	Vascular	Vascular: Intraosseous Cannulation	Intraosseous Cannulation	PT	430824005	Intraosseous cannulation	
100	Vascular	Vascular: Scalp Vein Catheterization	Scalp Vein Catheterization	PT	233526002	Peripheral venous cannula insertion - scalp	

	Procedure Category	Procedure Label by Category	Suggested Procedure Label	TTY Code	SNOMED CT Code	NEMESIS Version 3 SNOMED Procedure Description	NEMESIS Version 3 - Explanation of Inclusion
101	Vascular	Vascular: Subclavian Vein Catheterization	Subclavian Vein Catheterization	PT	405430002	Catheterization of subclavian vein	
102	Vascular	Vascular: Swan Ganz (PA Wedge Pressure) Monitoring	Swan Ganz (PA Wedge Pressure) Monitoring	PT	42340005	Pulmonary artery wedge pressure monitoring	
103	Vascular	Vascular: Umbilical Vein Catheterization	Umbilical Vein Catheterization	PT	42550007	Catheterization of umbilical vein	
104	Vascular	Vascular: Venous Catheter Removal	Venous Catheter Removal	PT	424287005	Removal of peripheral intravenous catheter	SYN: Discontinue peripheral intravenous catheter
105	Vascular	Vascular: Venous Puncture for Blood Draw	Venous Puncture for Blood Draw	PT	396540005	Phlebotomy	ADA/SY: Blood Draw; Venous blood draw