

NEMESIS V3.5.0 Defined List: eMedications.03/dConfiguration.04/dConfigurati on.09 – Medication Administered

Date

Current Revision: February 22, 2023

Previous Iterations: September 08, 2011 through August 22, 2016

Authors

N. Clay Mann – NEMESIS TAC P.I.

Julianne Ehlers – NEMESIS TAC Director

Cassie Longhart – NEMESIS TAC Data Analyst

Introduction

The Medication Administered Defined List was developed and is maintained to assist in the documentation of medications administered during an EMS patient encounter. The code list associated with eMedications.03 – Medication Administered is represented by a selected group of values found in the RxNorm coding system used primarily in the pre-hospital EMS environment. RxNorm provides standardized nomenclature for clinical drugs and drug delivery devices. The process for gaining access to the RxNorm code values is provided at the end of this document.

Some products (i.e., blood related products) are described through SNOMED codes that are specific to EMS use. SNOMED is another system of standardized nomenclature for healthcare terminology.

The defined list is organized by EMS description, common brand name or familiar name, code (RxNorm or SNOMED), and the clinical/generic description.

EMS DESCRIPTION (Brand Name)	RxNORM	RxNORM Description
Albuterol/Ipratropium (Combivent, Duoneb)	214199	Albuterol/Ipratropium
Dextrose 50% (D50)	237653	Glucose 500 MG/ML Injectable Solution

Historical Context

The NEMESIS Version 2 Data Standard established a suggested list of Medications Given. Feedback from stakeholders indicated that the list was not sufficient to clearly describe the patient encounter. NEMESIS Version 3 Data Standard allowed for a much broader range of medications. Feedback from stakeholders then indicated that the Data Standard now allowed for too broad of a range and the data collected were too detailed for efficient application by EMS clinicians.

Methodology

The eMedications.03 – Medication Administered defined list associated with the rollout of NEMESIS v3.5.0 was specifically populated to include the most commonly used medication codes.

Utilizing data from the NEMESIS National Database, Medications Administered that were documented on patient care reports were evaluated for recurrence and repetition. The assessment included 20,831,328 medications administered within the time frame of 01/01/2017 through 07/09/2019.

The 2019 eMedications.03 – Medication Administered Suggested List includes 62 commonly used medications and 7 other blood products specific to an EMS patient encounter.

RxNorm Code Usage Recommendations

RxNorm provides various codes for medications based on the Term Type (TTY). These include but are not limited to: Ingredient (IN), Precise Ingredient (PIN), Brand Name (BN), Semantic Clinical Drug (SCD), Semantic Clinical Drug Form (SCDF), Multiple Ingredient (MIN), and Semantic Clinical Drug Component (SCDC) codes indicating the medication strength or concentration or mixtures (Synonym of Another TTY = SY), and many term type dosing options.

The NEMESIS TAC recommends that medications administered by EMS professionals in the pre-hospital setting be recorded and submitted using the Ingredient (IN) code for the large majority of medication names. This is frequently the generic name of the medication. The NEMESIS Version 3.5.0 dataset has elements that allow for the separate documentation of the medication route, dosage, and dosage unit using the following three elements:

1. eMedications.04 - Medication Administered Route
2. eMedications.05 - Medication Dosage
3. eMedications.06 - Medication Dosage Units

The Medication Administered defined list is based primarily on the Term Type (TTY) and its corresponding RxNorm description.

Routes of administration and various formulations are not generally reflected in the Defined List but agencies that wish to track specific formulations are encouraged to “roll-up” that medication into its base formulary in the Defined List.

For example: Sodium Chloride (normal saline) is administered via a prefilled syringe (saline flush). This should be documented as Sodium Chloride (RxNorm 1807639) in eMedications.03 and not as Sodium Chloride 9 MG/ML Injectable Solution (RxNorm 313002).

The exceptions to this recommendation are Epinephrine and Dextrose due to common usage in the field.

To access an RxNorm Overview, including introduction, purpose and examples of RxNorm, and its usage please visit <http://www.nlm.nih.gov/research/umls/rxnorm/overview.html>. To see the explanation of the term types, see “What does the RxNorm model look like?” tab.

Licensed Code Lists

The U.S. National Library of Medicine provides access to the RxNorm and SNOMED 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.

Additional information for RxNorm can be found at:

<https://www.nlm.nih.gov/research/umls/rxnorm/index.html>.

Additional information for SNOMED can be found at: <https://www.nlm.nih.gov/healthit/snomedct/index.html>.

The NEMESIS TAC may only distribute defined 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.

Conclusion

By maintaining and promoting a standard single source of these data, we improve data quality and consistency. This will reduce reporting errors in data submissions provided it is used as a data management best practice.