NEMSIS V3 Suggested List – eHistory.12 Current Medications

Date

September 8, 2011

May 19, 2014 (updated information regarding the RxNorm Prescribable Medication List)

Authors

Karen E. Jacobson – NEMSIS Director
Keith R. Davis – NEMSIS Data Architect
N. Clay Mann – NEMSIS P.I.

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 Form (SCDF), 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.

To review the RxNorm overview, including an 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 page three (3) of this document.

eHistory.12 Current Medications

NEMSIS TAC recommends that the RxNorm Term Type identifying the medication by Ingredient (IN), Brand Name (BN), Primary Ingredient (PIN), or Multiple Ingredients (MIN) be utilized for the patient's current medications. This includes the patient's home medications or medications being administered to the patient in a healthcare setting (e.g. hospital, nursing home, etc). To document the route, dose, and dosage units utilize the following three elements:

1. eHistory.13 - Current Medication Dose
2. eHistory.14 - Current Medication Dosage Unit
3. eHistory.15 - Current Medication Administration Route

NEMSIS TAC Update May 2014: To facilitate the standardization of patient Current Medications (eHistory.12) from the U.S. National Library of Medicine (Unified Medical Language System® (UMLS®) website, the NEMSIS TAC downloaded from the "Current Prescribable Content Monthly Release May 5, 2014". Using the RXNCONSO (Drug and ingredient names and codes) file, the NEMSIS TAC limited the subset of medications to approximately 12,600 based on four Medication term types (TTY) which according to UMLS® RxNorm Overview page "indicate generic and branded drug names at different

levels of specificity." The four term types included in the subset for the suggested list are Ingredient (IN), Precise Ingredient (PIN), Brand Name (BN), and Multiple Ingredients (MIN).

- The responsible parties at UMLS® at the U.S. National Library of Medicine update the RxNorm files monthly. The list will not be updated monthly by the NEMSIS TAC.
- The prescribable medications can be downloaded without a license agreement from the U.S. National Library of Medicine UMLS® website and downloaded and can be found at: http://www.nlm.nih.gov/research/umls/rxnorm/docs/rxnormfiles.html

Per the U.S. National Library of Medicine UMLS® website:
The RxNorm Current Prescribable Content is a subset of currently prescribable drugs found in RxNorm. We intend it to be an approximation of the prescription drugs currently marketed in the US. The subset also includes many over-the-counter drugs.
(source: http://www.nlm.nih.gov/research/umls/rxnorm/docs/prescribe.html)

Licensed "Suggested Lists"

The U.S. National Library of Medicine provides access to the RxNorm 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. RxNorm codes may also be accessed through http://rxnav.nlm.nih.gov/

The NEMSIS 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 NEMSIS TAC.

The requirement does not apply to the Prescribable Medications made available the U.S. National Library of Medicine. Therefore the NEMSIS Suggested List download site will host the "Prescribed Medications" information on the publicly available page which does require a NEMSIS account and credentials.

Access to "Suggested List" Archive Files

Access to suggested code lists will be provided on a special section of the NEMSIS TAC's website. A licensed user will be able to login to the site and download the appropriate archive file (RxNorm, ICD-10, 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 NEMSIS master data repository.

This will not be the process for the RxNorm current prescribable list for eHistory.12 Current Medications.

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.

RxNorm Medication Term Types (TTY)

From the National Library of Medicine website: http://www.nlm.nih.gov/research/umls/rxnorm/overview.html .

The Term Types (TTY) identified by the NEMSIS TAC in the eHistory.12 Current Medications are limited to four as indicated above and by the blue arrows below.

TTY	Name	Definition	Example(s)
IN	Ingredient	A compound or moiety that gives the drug its distinctive clinical properties. The preferred name is usually the USAN name.	Fluoxetine, Insulin, Isophane, Human Gentamicin Sulfate (USP)
PIN	Precise Ingredient	A specified form of the ingredient that may or may not be clinically active. Most precise ingredients are salt or isomer forms.	Fluoxetine Hydrochloride
MIN	Multiple Ingredients	Two or more ingredients created from SCDF. In rare cases when IN/PIN or PIN/PIN combinations of the same base ingredient exist, created from SCD.	Fluoxetine / Olanzapine
DF	Dose Form	A complete list of Dose Forms can be found in Appendix 2 of the RxNorm Documentation.	Topical Solution, Oral Tablet
SCDC	Semantic Clinical Drug Component	Ingredient plus strength—see section on Rules and Conventions, below, for units of measurement and for rules pertaining to the calculation of strengths.	Fluoxetine 4 MG/ML
SCDF	Semantic Clinical Drug Form	Ingredient plus dose form.	Fluoxetine Oral Solution
SCD	Semantic Clinical Drug	Ingredient plus strength and dose form.	Fluoxetine 4 MG/ML Oral Solution
BN	Brand Name	A proprietary name for a family of products containing a specific active ingredient.	Prozac
SBDC	Semantic Branded Drug Component	Branded ingredient plus strength.	Fluoxetine 4 MG/ML [Prozac]
SBDF	Semantic Branded Drug Form	Branded ingredient plus dose form.	Fluoxetine Oral Solution [Prozac]
SBD	Semantic Branded Drug	Ingredient, strength, and dose form plus brand name.	Fluoxetine 4 MG/ML Oral Solution [Prozac]
SY	Synonym of another TTY	Given for clarity.	Prozac 4 MG/ML Oral Solution
TMSY	Tall Man Lettering synonym of another TTY	Given to distinguish between commonly confused drugs.	FLUoxetine 10 MG Oral Capsule [PROzac]
BPCK	Brand Name Pack	Branded Drug Delivery Device.	{12 (Ethinyl Estradiol 0.035 MG / Norethindrone 0.5 MG Oral Tablet) / 9 (Ethinyl Estradiol 0.035 MG / Norethindrone 1 MG Oral Tablet) / 7 (Inert Ingredients 1 MG Oral Tablet) } Pack [Leena 28 Day]
GPCK	Generic Pack	Generic Drug Delivery Device.	{11 (varenicline 0.5 MG Oral Tablet) / 42 (varenicline 1 MG Oral Tablet) } Pack