Reducing the User Impact of New Elements/Values

We need to prepare for NEMSIS Version 3.5.0

How can we reduce the costs (i.e., impact) of a new version on States and Agencies?

The Promise of NEMSIS Version 3

- **Improve Data Quality**
  - Improved data structure, XML
  - Business intelligence, Schematron
- **Enhance Performance Assessment**
  - Provider performance, protocol adherence
- **Data Transfer will be Automated**
  - "Real Time" - Via Web Services
- **Become National Standard (HL7)**
  - Synchronization of clinical content

Lets Take a Hard Look

- **Improve Data Quality**

  – Pros

  - Pertinent negatives

  - Business rules

  – Cons

  - Many elements have "Open lists"

    – Codes are imprecise and redundant (too many choices!)

    » "Suggested Lists" were introduced.

eMedications.03

| State | National |

eMedications.03 - Medication Given

Definition

The medication given to the patient

National Element	Yes	Pertinent Negatives (PN)	Yes
State Element	Yes	NOT Values	Yes
Version 2 Element	E18_03	Is Nillable	Yes
Usage	Required	Recurrence	1 : 1

Associated Performance Measure Initiatives

Airway   Cardiac Arrest   Pediatric   STEMI   Stroke   Trauma

Attributes

NOT Values (NV)
7701001 - Not Applicable   7701003 - Not Recorded

Pertinent Negatives (PN)
8801001 - Contraindication Noted   8801003 - Denied By Order   8801007 - Medication Allergy
8801009 - Medication Already Taken   8801019 - Refused   8801023 - Unable to Complete

Constraints

Data Type	minLength	maxLength
string	2	7

Data Element Comment

List of medications based on RxNorm (RXCUI) code.

Lets Take a Hard Look

- **Enhance performance assessment**
  - Pros
    - Additional elements
      - Possible to asses provider performance
  - Cons
    - Additional elements
      - Most are National (Mandatory)

      More time needed to complete a record!

eMedications.10	Role/Type of Person Administering Medication
eProcedures.10	Role/Type of Person Performing the Procedure
eProtocols.02	Protocol Age Category
eResponse.15	Level of Care of This Unit
eResponse.24	Additional Response Mode Descriptors
eScene.01	First EMS Unit on Scene
eScene.08	Triage Classification for MCI Patient
eSituation.13	Initial Patient Acuity
eTimes.12	Destination Patient Transfer of Care Date/Time
eVitals.04	ECG Type
eVitals.05	Method of ECG Interpretation
eVitals.30	Stroke Scale Type

Lets Take a Hard Look

- **Data Transfer will be automated**
  - Pros
    - Record close in a patient's home to arrival at NEMSIS
      - 7 minutes
  - Cons
    - Few.....exchange system is improving!

| 29,919,652 | 9,993 | 7 Minutes |
| EMS activations in 2016 | EMS agencies in 2016 | Fastest time from record completion to National Database arrival |

Lets Take a Hard Look

- **Prepare for next step (HL7)**
  - Pros
    - ANSI approved standard
  - Cons
    - ICD-10-CM, SNOMED, LOINC, RXNORN are clunky!
    - Data exchange not working well
      - Hospitals wont accept NEMSIS request structure
      - CMS approved templates are implemented differently across software

"Street Verified" Issues

- V3.3.4 & V3.4.0 – First V3 used in the field
  - EMS Providers
    - "Too many data elements!" (National are mandatory)
    - "ICD-10-CM – Too complicated!" (18 elements)
    - "Elements are confusing!" (eDisposition.12)
  - State Users
    - "Can't track resubmissions, personnel, resources!"
    - "Can't share/exchange data with hospitals or HIEs!"

Cost / Benefit Assessment

- Costs (states, agencies)
  - Approval/justification
  - Additional training
  - New materials
  - Additional cost
  - New Legal/Legislation
  - New setup
    - Required lists
    - Validation rules

- Benefits (agencies)
  - Increased clarity
  - Reduced time
  - Better incident flow

What more can we do to reduce the costs associated with implementation of a revision to NEMSIS?