Florida HEALTH





NEMSIS V3.5 EMS Data Standard

The Important Changes: Describing the Whole EMS Event

It's not just about eDisposition.12...

Something Besides eDisposition.12 is changing in NEMSIS V3.5?



Why yes it is...!

NEMSIS V3.5 has some big changes and the stakeholder talk at pretty much any level is focused solely on eDisposition.12 Incident/Patient disposition (and use of the UUID, which won't be discussed here)

However, the scope and vision of the changes was much broader than just the disposition updates.



What were the goals of the V3.5 Change?



The primary goal of the V3.5 change was to improve the ability and flexibility to fully describe an EMS event in a away that couldn't be done in previous NEMSIS dataset versions.

States and services needed more cohesive and flexible data to track, analyze and sometimes justify changes in the delivery of EMS care, environment and integration into the broader healthcare system.

Previous versions had limited ability to look at things like interfacility transfer levels, types and patterns, MIH programs, level and type of equipment available compared to the level of care actually provided. This lead to many custom elements and values being created to address these needs.

V3.5 was the opportunity to address these challenges and limitations.

Secondary goals included addressing the normal technical updates, addition of values needed, clarification of element names, definitions and updates to requirements generally seen in any version update.



Describing the Whole EMS Event



What do we need to know?

- ✓ What kind of call was it? (Type of Service Requested)
- ✓ What type and level of resources responded?
- ✓ Did the unit get on scene and was there patient contact?
- ✓ If there was a patient, were they evaluated and treated?
- ✓ What did the crew do (e.g. provide care, support services)?
- ✓ What level of care was actually provided?
- ✓ How sick was the patient before and after EMS care?
- ✓ Was the patient transported, by who and what type of destination did they go to?
- ✓ If a transfer, what was the sending order reason and general type? (EMS Provider Impressions do not apply for transfers diagnosis is by the sending medical provider)



Describing the Whole EMS Event



What needed improvement from 3.4 (3.3.4, 2.0)?

What kind of call was it? (Type of Service Requested)

Mostly limited to 911 and both transfer options were confusing, causing inconsistencies in data There were dispositions that were better identified in other elements

"Primary Role of Unit" was limited. Needed to be expanded and incorporate the level of equipment with the responding unit

Determining level of care actually provided was difficult, required looking at several data elements resulting in states or services using custom elements to capture it (Often modifying already complicated eDisposition.12 values)

Incident/patient disposition collected 3-4 pieces of information in each value (always a limiting idea), did not address all EMS scenarios, provided no flexibility, and made data mining and business rules more difficult than needed

Capturing reasons for transfers couldn't be done which is important for billing purposes and analyzing transfer volume and levels and referral patterns for systems-of-care

Type of destination options needed to be expanded for changes in EMS operations



So What Changed?



- The following slides provide an overview of the element changes made to better describe an EMS event.
 - They follow the steps outlined previously to describe an EMS event.
 - Note that comparison matches are suggested and may not align with all EMS scenarios
- The slides at the end also provide an overview of changes to other Elements detailed in the NEMSIS change logs.



What kind of call was it?



eResponse.05 - Type of Service Requested		
NEW V3.5 Value Options	Replaces Previous V3.4 Value Options	
Emergency Response (Primary Response Area)	911 Response (Scene)	
Emergency Response (Intercept)	Intercept	
Emergency Response (Mutual Aid)	Mutual Aid	
Hospital-to-Hospital Transfer		
Hospital-to-Hospital Transfer (with Sending Hospital Staff) Interfacility Transport		
Hospital-to-Hospital Transfer (Critical or Specialty Care)		
Other Medical Needs Transport	Medical Transport	
Public Assistance	Public Assistance/Other Not Listed	
Standby Standby		
Support Services		
Non-Patient Care Rescue / Extrication		
Crew Transport Only		
Transport of Organs or Body Parts		
Mortuary Services		
Mobile Integrated Health Care Evaluation or Visit]	
Medical Evaluation for Referral/Intake]	
Administrative Operations		



What type and level of resources responded?



Formerly Labeled "Primary Role of Unit"

eResponse.07 - Unit Transport and Equipment Capability	
V3.5 Value Options	Replaces Previous V3.4 Value Options
Ground Transport (ALS Equipped)	
Ground Transport (BLS Equipped)	Ground Transport
Ground Transport (Critical Care Equipped)	
Non-Transport-Medical Treatment (ALS Equipped)	
Non-Transport-Medical Treatment (BLS Equipped)	Non-Transport Rescue
Non-Transport-Medical Treatment (MIHC Equipped)	
Non-Transport-No Medical Equipment	Non-Transport Assistance
	Non-Transport Administrative (e.g., Supervisor)
Wheel Chair Van / Ambulette	
Air Transport-Helicopter	Air Transport-Helicopter
Air Transport-Fixed Wing	Air Transport-Fixed Wing

The transport and equipment capabilities of the EMS Unit which responded to this specific EMS event.



Did the unit get on scene and was there patient contact?



This is a key filter point looking at data

eDisposition.27 - Unit Disposition	
NEW V3.5 Value Options	Previous V3.4 Value Options
	Assist, Agency
	Assist, Public
	Assist, Unit
	Patient Dead at Scene-No Resuscitation Attempted (With Transport)
	Patient Dead at Scene-No Resuscitation Attempted (Without Transport)
	Patient Dead at Scene-Resuscitation Attempted (With Transport)
	Patient Dead at Scene-Resuscitation Attempted (Without Transport)
Patient Contact Made	Patient Evaluated, No Treatment/Transport Required
	Patient Refused Evaluation/Care (With Transport)
	Patient Refused Evaluation/Care (Without Transport)
	Patient Treated, Released (AMA)
	Patient Treated, Released (per protocol)
	Patient Treated, Transferred Care to Another EMS Unit
	Patient Treated, Transported by this EMS Unit
	Patient Treated, Transported by Law Enforcement
	Patient Treated, Transported by Private Vehicle
Cancelled Prior to Arrival at Scene	Canceled (Prior to Arrival At Scene)
Cancelled on Scene	
No Patient Contact	Canceled on Scene (No Patient Contact) Canceled on Scene (No Patient Found)
No Patient Found	
	Standby-No Services or Support Provided
Non-Patient Incident (Not Otherwise Listed)	Standby-Public Safety, Fire, or EMS Operational Support Provided
	Transport Non-Patient, Organs, etc.



The patient disposition for an EMS event identifying whether patient contact was made.

If there was a patient, were they evaluated and treated?



eDisposition.28 - Patient Evaluation/Care	
NEW V3.5 Value Options	Replaces Previous V3.4 Value Options
Patient Evaluated and Care Provided	Patient Dead at Scene-Resuscitation Attempted (With Transport)Patient Dead at Scene-Resuscitation Attempted (Without Transport)Patient Treated, Released (per protocol)Patient Treated, Transferred Care to Another EMS UnitPatient Treated, Transported by this EMS Unit
Patient Support Services Provided	Assist, Agency Assist, Public Assist, Unit
Patient Evaluated, No Care Required	Assist, Public Patient Dead at Scene-No Resuscitation Attempted (With Transport) Patient Dead at Scene-No Resuscitation Attempted (Without Transport) Patient Evaluated, No Treatment/Transport Required
Patient Refused Evaluation/Care	Patient Refused Evaluation/Care (With Transport)
Patient Evaluated and Refused Care	Patient Treated, Released (AMA) Patient Treated, Transported by Law Enforcement Patient Treated, Transported by Private Vehicle
Not Applicable	Canceled (Prior to Arrival At Scene) Canceled on Scene (No Patient Contact) Canceled on Scene (No Patient Found) Standby-No Services or Support Provided Standby-Public Safety, Fire, or EMS Operational Support Provided Transport Non-Patient, Organs, etc.



What did the crew do?



eDisposition.29 - Crew Disposition	
NEW V3.5 Value Options	Replaces Previous V3.4 Value Options
	Patient Dead at Scene-No Resuscitation Attempted (With Transport)
	Patient Dead at Scene-No Resuscitation Attempted (Without Transport)
	Patient Dead at Scene-Resuscitation Attempted (With Transport)
	Patient Dead at Scene-Resuscitation Attempted (Without Transport)
Initiated and Continued Primary Care	Patient Refused Evaluation/Care (With Transport)
Or	Patient Treated, Released (AMA)
Assumed Primary Care from Another EMS Crew	Patient Treated, Released (per protocol)
	Patient Treated, Transported by this EMS Unit
	Patient Treated, Transported by Law Enforcement
	Patient Treated, Transported by Private Vehicle
	Assist, Public
Initiated Primary Care and Transferred to Another EMS Crew	Patient Treated, Transferred Care to Another EMS Unit
Back in Service, Care/Support Services Refused	Patient Refused Evaluation/Care (Without Transport)
	Assist, Agency
Provided Care Supporting Primary EMS Crew	Assist, Unit
	Transport Non-Patient, Organs, etc.
Incident Support Services Provided (Including Standby)	Standby-No Services or Support Provided
	Standby-Public Safety, Fire, or EMS Operational Support Provided
Back in Service, No Care/Support Services Required	Patient Evaluated, No Treatment/Transport Required
	Canceled (Prior to Arrival At Scene)
	Canceled on Scene (No Patient Contact)
	Canceled on Scene (No Patient Found)

The crew disposition for this EMS event identifying which crew provided primary patient care or whether support services were required.



Was the patient transported and by who ?



This is a key filter point looking at data

eDisposition.30 - Transport Disposition		
NEW V3.5 Value Options	Replaces Previous V3.4 Value Options	
	Patient Dead at Scene-No Resuscitation Attempted (With Transport)	
Transport by This EMS Unit (This Crew Only), OR	Patient Dead at Scene-Resuscitation Attempted (With Transport)	
Transport by This EMS Unit, with a Member of Another Crew, OR Transport by Another EMS Unit, OR	Patient Refused Evaluation/Care (With Transport)	
Transport by Another EMS Unit, with a Member of This Crew	Patient Treated, Transported by this EMS Unit	
Transport by Another Livis onit, with a Member of This crew	Patient Refused Evaluation/Care (With Transport)	
	Patient Treated, Transported by Law Enforcement	
Patient Refused Transport	Patient Treated, Transported by Private Vehicle	
	Patient Treated, Released (AMA)	
	Patient Dead at Scene-No Resuscitation Attempted (Without Transport)	
	Patient Dead at Scene-Resuscitation Attempted (Without Transport)	
	Patient Refused Evaluation/Care (Without Transport)	
No Transport	Patient Treated, Released (per protocol)	
	Patient Evaluated, No Treatment/Transport Required	
	Assist, Public	
Non-Patient Transport (Not Otherwise Listed)	Transport Non-Patient, Organs, etc.	
Any value above may apply	Assist, Agency	
	Assist, Unit	
Not Applicable	Canceled (Prior to Arrival At Scene)	
	Canceled on Scene (No Patient Contact)	
	Canceled on Scene (No Patient Found)	
	Standby-No Services or Support Provided	
	Standby-Public Safety, Fire, or EMS Operational Support Provided	



The transport disposition for an EMS event identifying whether a transport occurred and by which unit.

If they refused care and/or transport – why?



Makes it easier to track this as data and helps retire certain previous disposition values with a better use model

eDisposition.31 - Reason for Refusal/Release	
NEW V3.5 Value Options	Match to Previous V3.4 Value Options
Against Medical Advice	Patient Treated, Released (AMA)
Patient/Guardian Indicates Ambulance Transport is Not Necessary	Patient Refused Evaluation/Care (Without Transport)
Released Following Protocol Guidelines	Patient Treated, Released (per protocol)
DNR	Patient Treated, Released (per protocol)
Medical/Physician Orders for Life Sustaining Treatment	Patient Treated, Released (per protocol)
Released to Law Enforcement	Patient Treated, Transported by Law Enforcement
Patient/Guardian States Intent to Transport by Other Means	Patient Treated, Transported by Private Vehicle
Other, Not Listed	

This is a new optional use element

Describes reason(s) for the patient's refusal of care/transport OR the EMS clinician's decision to release the patient.



What level of care was actually provided?



Level of care of this unit (removed in V3.5) attempted to collect this combined with equipment level on vehicle but was ineffective and confusing for providers. Level of Care Provided per Protocol was added as it is very specific and direct and equipment was moved to eResponse.07 - Unit Transport and Equipment Capability

eDisposition.32 - Level of Care Provided per Protocol

NEW V3.5 Value Options
BLS - All Levels
ALS - AEMT/Intermediate
ALS - Paramedic
EMS and Other Health-Care Staff
Critical Care
Integrated Health Care
No Care Provided

Definition:

The level of care should be defined by the situation, medications, and procedures provided to the patient *based* on what is allowed in the local EMS protocols. This definition can vary between regions; what may be allowed for BLS providers in one region may be considered ALS care in another. This is not a reflection of the provider levels providing care, but the actual care given-for example, BLS care provided by a paramedic would be entered as "BLS – All Levels". This element benefits reviews of performance, resource demand and utilization, and reimbursement coding.



How sick was the patient before and after EMS care?



Two values added to better describe common findings

eSituation.13 - Initial Patient Acuity	
NEW V3.5 Value Options	Replaces Previous V3.4 Value Options
Critical (Red)	Critical (Red)
Emergent (Yellow)	Emergent (Yellow)
Lower Acuity (Green)	Lower Acuity (Green)
Dead without Resuscitation Efforts (Black)	Dead without Resuscitation Efforts (Black)
Non-Acute/Routine	

eDisposition.19 - Final Patient Acuity	
NEW V3.5 Value Options	Replaces Previous V3.4 Value Options
Critical (Red)	Critical (Red)
Emergent (Yellow)	Emergent (Yellow)
Lower Acuity (Green)	Lower Acuity (Green)
Dead without Resuscitation Efforts (Black)	Dead without Resuscitation Efforts (Black)
Dead with Resuscitation Efforts (Black)	
Non-Acute/Routine]



Justification for Transfers



New fields were created to allow space to capture the diagnosis of the physician ordering the transfer. A second element was added with fixed values so transfer reasons and patterns can better be analyzed eSituation.19 - Justification for Transfer or Encounter This is a text field to enter the sending physicians diagnosis for transfer. EMS Provider Primary Impression is not the reason that a transfer is ordered and should not be used.

eSituation.20 - Reason for Interfacility Transfer/Medical Transport	
NEW V3.5 Value Options	
Cardiac Specialty	
Convenience Transfer (Patient Request)	
Diagnostic Testing	
Dialysis	
Drug and/or Alcohol Rehabilitation Care	
Extended Care	
Maternal/Neonatal	
Medical Specialty Care (Other, Not Listed)	
Neurological Specialty Care	
Palliative/Hospice Care (Home or Facility)	
Pediatric Specialty Care	
Psychiatric/Behavioral Care	
Physical Rehabilitation Care	
Return to Home/Residence	
Surgical Specialty Care (Other, Not Listed)	
Trauma/Orthopedic Specialty Care	



eDisposition.21 - Type of Destination



eDisposition.21 - Type of Destination	
NEW V3.5 Value Options	Previous V3.4 Value Options
Home	Home
Hospital-Emergency Department	Hospital-Emergency Department
Hospital-Non-Emergency Department Bed	Hospital-Non-Emergency Department Bed
Clinic	Medical Office/Clinic
Morgue/Mortuary	Morgue/Mortuary
	Nursing Home/Assisted Living Facility
Other	Other
Other EMS Responder (air)	Other EMS Responder (air)
Other EMS Responder (ground)	Other EMS Responder (ground)
Police/Jail	Police/Jail
Urgent Care	Urgent Care
Freestanding Emergency Department	Freestanding Emergency Department
Dialysis Center	
Diagnostic Services	
Assisted Living Facility	
Mental Health Facility	
Nursing Home	
Other Recurring Care Center	
Physical Rehabilitation Facility	
Drug and/or Alcohol Rehabilitation Facility	
Skilled Nursing Facility	



Other Significant Changes



- The following five slides show other significant changes including Elements that have:
 - Had values added
 - Had names or definitions changed
 - Been added or removed from National requirements
 - Been added, removed and/or replaced
- This is only a general summary, a complete review of the V3.5 Change Log can be found here: <u>https://nemsis.org/media/nemsis_v3/release-3.5.0/DataDictionary/ChangeLog.pdf</u>



Existing Elements Modified in V3.5



Generally these elements had values added to remain current with changes in the EMS Environment

dFacility.01 - Type of Facility
eAirway.05- Airway Confirmation Methods
eArrest.01 - Cardiac Arrest (Was there one)
eArrest.02 - Cardiac Arrest Etiology
eArrest.04 - Arrest Witnessed By
eArrest.04 - Arrest Witnessed By
eArrest.09 - Type of CPR Provided
eDispatch.01 - Dispatch Reason
eDisposition.19 - Final Patient Acuity
eDisposition.19 - Type of Destination
eDisposition.21 - Type of Destination
eDisposition.23 - Hospital Designations (and dFacility.04)
eDisposition.24 - Destination PreArrival Activation
eExam.15 - Extremity Assessment Finding Location
eExam.18 - Eye Assessment
eExam.19 - Mental Status Assessment
eExam.20 - Neurological Assessment
eHistory.10 - The Patient's Type of Immunization
eHistory.17 - Alcohol/Drug Use Indicators
elnjury.07 - Use of Occupant Safety Equipment
eLabs.03 - Laboratory Result Type
eMedications.04 - Medication Administered Route
EMS Care Giver and License Level (Meds, Procedures, Crew)
eOther.07 - Natural, Suspected, Intentional, or Unintentional Disaster
eOutcome.06 - Emergency Department Chief Complaint
eOutcome.07 - First ED Systolic Blood Pressure
eOutcome.08 - Emergency Department Recorded Cause of Injury
ePatient.13 - Gender
ePayment.05 - Healthcare Provider Type Signing Physician Certification Statement
ePayment.42 - Specialty Care Transport Care Provider
eProcedures.13 - Vascular Access Location
eResponse.05 - Type of Service Requested
eResponse.08 - Type of Dispatch Delay
eSituation.13 - Initial Patient Acuity
eVitals.03 - Cardiac Rhythm / Electrocardiography (ECG)
eVitals.04 - ECG Type
eVitals.16 - End Tidal Carbon Dioxide (ETCO2)







These changes occurred to improve usability or reflect changes in the EMS environment and needs

eDisposition.23 - Hospital Capability		
elnjury.03 - Trauma Triage Criteria (Steps 1 and 2)		
elnjury.04 - Trauma Triage Criteria (Steps 3 and 4)		
eMedications.03 - Medication Administered		
eMedications.05 - Medication Dosage		
eMedications.06 - Medication Dosage Units		
eResponse.02 - EMS Agency Name		
eResponse.07 - Unit Transport and Equipment Capability		
eResponse.16 - Vehicle Dispatch Location		
eResponse.23 - Response Mode to Scene		
eScene.01 - First EMS Unit on Scene		
eScene.02 - Other EMS or Public Safety Agencies at Scene		
eScene.03 - Other EMS or Public Safety Agency ID Number		
eTimes.13 - Unit Back in Service Date/Time		
eTimes.09 - Unit Left Scene Date/Time		
eTimes.12 - Destination Patient Transfer of Care Date/Time		
eVitals.16 - End Tidal Carbon Dioxide (ETCO2)		
eVitals.18 - Blood Glucose Level		
eVitals.19 - Glasgow Coma Score-Eye		
eVitals.20 - Glasgow Coma Score-Verbal		
eVitals.21 - Glasgow Coma Score-Motor		
eVitals.33 - Revised Trauma Score		



New or Removed Elements in V3.5



These are Elements that are Completely New or were Permanently Removed and not replaced in V3.5

Completely New Elements in V3.5		
Unique Run Record Identifier "UUID" (Reference the NEMSIS site for detailed explanation)		
eHistory.20 - Current Medication Frequency		
eOutcome.19 - Date/Time Emergency Department Procedure Performed		
eOutcome.20 - Date/Time Hospital Procedure Performed		
eOutcome.18 - Date/Time of Emergency Department Admission		
ePatient.22 - Alternate Home Residence		
ePayment.59 - Insurance Company Phone Number		
ePayment.60 - Date of Birth of the Insured		
eResponse.15 - Level of Care of This Unit		
eScene.24 - First Other EMS or Public Safety Agency at Scene to Provide Patient Care		
eTimes.17 - Unit Arrived at Staging Area Date/Time		
eSituation.19 - Justification for Transfer or Encounter		
eSituation.20 - Reason for Interfacility Transfer/Medical Transport		
eDisposition.32 - Level of Care Provided per Protocol		
sConfiguration.02 - EMS Certification Levels Permitted to Perform Each Procedure		
sConfiguration.04 - EMS Certification Levels Permitted to Administer Each		

Removed from V3.5 and Not Replaced with New Elements

eOutcome.14 - Total ICU Length of Stay

eOutcome.15 - Total Ventilator Days



Elements Removed and Replaced in V3.5



These are Elements that have been removed and replaced with new elements in V3.5 in order to better address the changing needs of the EMS Environment

Removed in V3.5 and Replaced	Replaced with in V3.5
eArrest.05 - CPR Care Provided Prior to EMS Arrival	- Armant 20 M/ka Einst Initiated CDD
eArrest.06 - Who Provided CPR Prior to EMS Arrival	eArrest.20 - Who First Initiated CPR
eArrest.08 - Who Used AED Prior to EMS Arrival	eArrest.21 - Who First Applied the AED
	eArrest.22 - Who First Defibrillated the Patient
(Reactivated from V3.3.4)	eArrest.10 - Therapeutic Hypothermia by EMS
eExam.08 - Chest/Lungs Assessment	eExam.22 - Lung Assessment Finding Location
	eExam.23 - Lung Assessment
	eExam.24 - Chest Assessment Finding Location
	eExam.25 - Chest Assessment
eResponse.15 - Level of Care of This Unit	eResponse.07 - Unit Transport and Equipment Capability
	eDisposition.32 - Level of Care Provided per Protocol
eDisposition.12 - Incident/Patient Disposition	eDisposition.27 - Unit Disposition
	eDisposition.28 - Patient Evaluation/Care
	eDisposition.29 - Crew Disposition
	eDisposition.30 - Transport Disposition
	eDisposition.31 - Reason for Refusal/Release
eResponse.15 - Level of Care of This Unit	eResponse.07 - Unit Transport and Equipment Capability
	eDisposition.32 - Level of Care Provided per Protocol
dConfiguration.02 - State Certification/Licensure Levels	sConfiguration.01 - State Certification/Licensure Levels
dConfiguration.03 - Procedures Permitted by the State	sConfiguration.03 - Procedures Permitted by the State
dConfiguration.04 - Medications Permitted by the State	sConfiguration.05 - Medications Permitted by the State
dConfiguration.05 - Protocols Permitted by the State	sConfiguration.06 - Protocols Permitted by the State



Changes in Submission Requirements to NEMSIS



- These are *Existing Elements* that have been demoted from or promoted to the requirement to be submitted to NEMSIS as part of the national dataset.
- The Elements have not been removed from the dataset and remain useable at the state and local level regardless of their status.
- These changes may impact point-of-entry business and Schematron rules and require updates to those rules

Demoted from Requirement for National Data Submission	Promoted to Requirement for National Data Submission
dAgency.15 - Statistical Calendar Year	eMedications.04 - Medication Administered Route
dAgency.16 - Total Primary Service Area Size	eOther.06 - The Type of Work-Related Injury, Death or Suspected Exposure
dAgency.17 - Total Service Area Population	eOutcome.09 - Emergency Department Procedures
dAgency.18 - 911 EMS Call Center Volume per Year	eOutcome.10 - Emergency Department Diagnosis
dAgency.19 - EMS Dispatch Volume per Year	eOutcome.11 - Date/Time of Hospital Admission
dAgency.20 - EMS Patient Transport Volume per Year	eOutcome.12 - Hospital Procedures
dAgency.21 - EMS Patient Contact Volume per Year	eOutcome.13 - Hospital Diagnosis
dAgency.22 - EMS Billable Calls per Year	eOutcome.16 - Date/Time of Hospital Discharge
dConfiguration.11	eSituation.18 - Date/Time Last Known Well
dConfiguration.15	
eOther.05 - Suspected EMS Work Related Exposure, Injury, or Death	1
eProtocols.02 - Protocol Age Category	
eVitals.08 - Method of Blood Pressure Measurement	







Please address any questions you may have to your State EMS Data Management Team or the NEMSIS Technical Assistance Center

This document is intended to be an informative overview of the changes in NEMSIS V3.5. The information contained here may be less specific or a combination of facts used in the interests of summarizing the data for easier reading. Please visit the Florida EMSTARS website at www.floridaemstars.com or the NEMSIS website at www.nemsis.org for the definitive references, resources and technical specifications for V3.5.

