# Purpose:

# To define the minimum data elements pertaining to each EMS call that ambulance services must ensure their EMS personnel are documenting in all patient care reports, as required by 105 CMR 170.345, and which ambulance services must timely submit to the Department of Public Health (Department), in accordance with 105 CMR 170.347, and this administrative requirement (AR).

2) To define the minimum data elements that ambulance services are required to submit to the Department as template information at least annually, or as the information changes, in accordance with 105 CMR 170.347, and this administrative requirement.

**Background:**

Under M.G.L. c. 111C, §3(b)(15), the Department, as lead agency for EMS in the Commonwealth, is charged with the collection and maintenance of standardized patient data and information by ambulance services, which services must ensure their EMTs are collecting on a patient care report. The minimum EMS data set defined in this AR is being updated to align with the most current version available nationally and is based on the National EMS Information System Dataset (NEMSIS), as set out in the **MATRIS** NEMSIS Data Dictionary Version 3.5.0**.** The MATRIS data dictionary is derived from the 640 elements in the NEMSIS V3.5.0 data dictionary**.**

**Transition Period Timeline:**

1. By June 15, 2023, MATRIS will be ready to accept NEMSIS V3.5 data. At that point, ambulance services may begin submitting data, in accordance with all the requirements of this AR, directly to the MATRIS website, <https://matris.imagetrendelite.com/Elite/Organizationmatris/>, or import from third-party software that has passed NEMSIS V3.5.0 compliance testing for ambulance services, as documented on the NEMSIS website [here](https://nemsis.org/technical-resources/version-3/v3-compliant-software-and-compliance-testing-status/). However, **prior to beginning submission of NEMSIS V3.5.0 data, services must submit any NEMSIS V3.4.0 data they have not yet submitted**.

(B) Until September 30, 2023, services may continue to submit NEMSIS V3.4.0. As of October 1, 2023, all services will be required to submit data in accordance with the new NEMSIS V3.5.0 standard, and all requirements of this AR.

**Submission:**

1. Ambulance services must submit data, in accordance with all the requirements of this AR, directly to the MATRIS NEMSIS website, <https://matris.imagetrendelite.com/Elite/Organizationmatris/>, in accordance with the transition period timeline above; or
2. Ambulance services must import from third-party software that has passed NEMSIS V3.5.0 compliance testing for EMS agencies as documented on the NEMSIS website [here](https://nemsis.org/technical-resources/version-3/v3-compliant-software-and-compliance-testing-status/).
3. The minimum information required by this AR for each EMS call must be submitted to the Department within 7 days of the call, via import or direct on-line data entry, to the MATRIS NEMSIS V3.4.0 website, at <https://matris.imagetrendelite.com/Elite/Organizationmatris/>

**Data Elements**

(A) Each NEMSIS V3.5.0 patient care report shall at a minimum include the following information about the EMS call that it documents. The definitions, values and configuration information for each of these elements are available in the Massachusetts Ambulance Trip Record Information System (MATRIS) NEMSIS V3.5.0 data dictionary, which can be found on the Department’s website at [www.mass.gov/dph/oems/matris](http://www.mass.gov/dph/oems/matris). All but one of the MATRIS data requirements are derived from the 640 elements in the NEMSIS Data Dictionary Version 3.5.0**.** A custom state element to collect the numeric stroke scale score value is also included, itVitals.055.

For reference, the list below includes the NEMSIS Element Number and the Element Name in the MATRIS V3.5.0 and NEMSIS data set, as well as the designation of National Element if the data element is included in the NEMSIS electronic Patient Care Record (ePCR) minimum data set.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **Element Number** | **Element Name** | **National** |
| 1 | | eAirway.03 | Airway Device Being Confirmed |  |
| 2 | | eAirway.04 | Airway Device Placement Confirmed Method |  |
| 3 | | eAirway.08 | Airway Complications Encountered |  |
| 4 | | eAirway.09 | Suspected Reasons for Failed Airway Management |  |
| 5 | | eArrest.01 | Cardiac Arrest | National |
| 6 | | eArrest.02 | Cardiac Arrest Etiology | National |
| 7 | | eArrest.03 | Resuscitation Attempted By EMS | National |
| 8 | | eArrest.04 | Arrest Witnessed By | National |
| 9 | | eArrest.07 | AED Use Prior to EMS Arrival | National |
| 10 | | eArrest.09 | Type of CPR Provided | National |
| 11 | | eArrest.11 | First Monitored Arrest Rhythm of the Patient | National |
| 12 | | eArrest.12 | Any Return of Spontaneous Circulation | National |
| 13 | | eArrest.14 | Date/Time of Cardiac Arrest | National |
| 14 | | eArrest.16 | Reason CPR/Resuscitation Discontinued | National |
| 15 | | eArrest.17 | Cardiac Rhythm on Arrival at Destination | National |
| 16 | | eArrest.18 | End of EMS Cardiac Arrest Event | National |
| 17 | | eArrest.20 | Who First Initiated CPR | National |
| 18 | | eArrest.21 | Who First Applied the AED | National |
| 19 | | eArrest.22 | Who First Defibrillated the Patient | National |
| 20 | eCrew.01 | | Crew Member ID |  |
| 21 | eCrew.02 | | Crew Member Level |  |
| 22 | eDispatch.01 | | Complaint Reported by Dispatch | National |
| 23 | eDispatch.02 | | EMD Performed | National |
| 24 | eDisposition.01 | | Destination/Transferred To, Name |  |
| 25 | eDisposition.02 | | Destination/Transferred To, Code |  |
| 26 | eDisposition.03 | | Destination Street Address |  |
| 27 | eDisposition.04 | | Destination City |  |
| 28 | eDisposition.05 | | Destination State | National |
| 29 | eDisposition.06 | | Destination County | National |
| 30 | eDisposition.07 | | Destination Zip Code | National |
| 31 | eDisposition.08 | | Destination Country |  |
| 32 | | eDisposition.16 | EMS Transport Method | National |
| 33 | | eDisposition.17 | Transport Mode from Scene | National |
| 34 | | eDisposition.18 | Additional Transport Mode Descriptors | National |
| 35 | | eDisposition.19 | Final Patient Acuity | National |
| 36 | | eDisposition.20 | Reason for Choosing Destination | National |
| 37 | | eDisposition.21 | Type of Destination | National |
| 38 | | eDisposition.22 | Hospital In-Patient Destination | National |
| 39 | | eDisposition.23 | Hospital Capability | National |
| 40 | | eDisposition.24 | Destination Team Pre-Arrival Alert or Activation | National |
| 41 | | eDisposition.25 | Date/Time of Destination Prearrival Alert or Activation | National |
| 42 | | eDisposition.27 | Unit Disposition | National |
| 43 | | eDisposition.28 | Patient Evaluation/Care | National |
| 44 | | eDisposition.29 | Crew Disposition | National |
| 45 | | eDisposition.30 | Transport Disposition | National |
| 46 | | eDisposition.31 | Reason for Refusal/Release |  |
| 47 | | eDisposition.32 | Level of Care Provided per Protocol | National |
| 48 | | eExam.01 | Estimated Body Weight in Kilograms |  |
| 9 | | eExam.02 | Length Based Tape Measure |  |
| 50 | | eExam.19 | Mental Status Assessment |  |
| 51 | | eExam.20 | Neurological Assessment |  |
| 52 | | eExam.21 | Stroke/CVA Symptoms Resolved |  |
| 53 | | eHistory.01 | Barriers to Patient Care | National |
| 54 | | eHistory.02 | Last Name of Patient’s Practitioner |  |
| 55 | | eHistory.03 | First Name of Patient’s Practitioner |  |
| 56 | | eHistory.05 | Advance Directives |  |
| 57 | | eHistory.17 | Alcohol/Drug Use Indicators | National |
| 58 | | eInjury.01 | Cause of Injury | National |
| 59 | | eInjury.03 | Trauma Triage Criteria (Steps 1 and 2) | National |
| 60 | | eInjury.04 | Trauma Triage Criteria (Steps 3 and 4) | National |
| 61 | | eInjury.05 | Main Area of the Vehicle Impacted by the Collision |  |
| 62 | | eInjury.06 | Location of Patient in Vehicle |  |
| 63 | | eInjury.07 | Use of Occupant Safety Equipment |  |
| 64 | | eInjury.08 | Airbag Deployment |  |
| 65 | | eInjury.09 | Height of Fall (feet) |  |
| 66 | | eMedications.01 | Date/Time Medication Administered | National |
| 67 | | eMedications.02 | Medication Administered Prior to this Unit’s EMS Care | National |
| 68 | | eMedications.03 | Medication Given | National |
| 69 | | eMedications.04 | Medication Administered Route | National |
| 70 | | eMedications.05 | Medication Dosage | National |
| 71 | | eMedications.06 | Medication Dosage Units | National |
| 72 | | eMedications.07 | Response to Medication | National |
| 73 | | eMedications.08 | Medication Complication | National |
| 74 | | eMedications.10 | Role/Type of Person Administering Medication | National |
| 75 | | eNarrative.01 | Patient Care Report Narrative |  |
| 76 | | eOther.05 | Suspected EMS Work Related Exposure, Injury, or Death |  |
| 77 | | eOther.06 | The Type of Work-Related Injury, Death or Suspected Exposure |  |
| 78 | | eOther.07 | Natural, Suspected, Intentional, or Unintentional Disaster |  |
| 79 | | eOutcome.01 | Emergency Department Disposition | National |
| 80 | | eOutcome.02 | Hospital Disposition | National |
| 81 | | ePatient.02 | Last Name |  |
| -82 | | ePatient.03 | First Name |  |
| 83 | | ePatient.05 | Patient’s Home Address |  |
| 84 | | ePatient.06 | Patient’s Home City |  |
| 85 | | ePatient.07 | Patient's Home County | National |
| 86 | | ePatient.08 | Patient's Home State | National |
| 87 | | ePatient.09 | Patient's Home Zip Code | National |
| 88 | | ePatient.10 | Patients Country of Residence |  |
| 89 | | ePatient.13 | Gender | National |
| 90 | | ePatient.14 | Race | National |
| 91 | | ePatient.15 | Age | National |
| 92 | | ePatient.16 | Age Units | National |
| 93 | | ePatient.17 | Date of Birth |  |
| 94 | | ePatient.22 | Alternate Home Residence |  |
| 95 | | ePayment.01 | Primary Method of Payment | National |
| 96 | | ePayment.50 | CMS Service Level | National |
| 97 | | eProcedures.01 | Date/Time Procedure Performed | National |
| 98 | | eProcedures.02 | Procedure Performed Prior to this Unit’s EMS Care | National |
| 99 | | eProcedures.03 | Procedure | National |
| 100 | | eProcedures.05 | Number of Procedure Attempts | National |
| 101 | | eProcedures.06 | Procedure Successful | National |
| 102 | | eProcedures.07 | Procedure Complication | National |
| 103 | | eProcedures.08 | Response to Procedure | National |
| 104 | | eProcedures.10 | Role/Type of Person Performing the Procedure | National |
| 105 | | eProtocols.01 | Protocols Used | National |
| 106 | | eProtocols.02 | Protocol Age Category | National |
| 107 | | eRecord.01 | Patient Care Report Number | National |
| 108 | | eRecord.02 | Software Creator | National |
| 109 | | eRecord.03 | Software Name | National |
| 110 | | eRecord.04 | Software Version | National |
| 111 | | eResponse.01 | EMS Agency Number | National |
| 112 | | eResponse.03 | Incident Number | National |
| 113 | | eResponse.04 | EMS Response Number | National |
| 114 | | eResponse.05 | Type of Service Requested | National |
| 115 | | eResponse.07 | Unit Transport and Equipment Capability | National |
| 116 | | eResponse.08 | Type of Dispatch Delay | National |
| 117 | | eResponse.09 | Type of Response Delay | National |
| 118 | | eResponse.10 | Type of Scene Delay | National |
| 119 | | eResponse.11 | Type of Transport Delay | National |
| 120 | | eResponse.12 | Type of Turn-Around Delay | National |
| 121 | | eResponse.13 | EMS Vehicle (Unit) Number | National |
| 122 | | eResponse.14 | EMS Unit Call Sign | National |
| 123 | | eResponse.16 | Vehicle Dispatch Location |  |
| 124 | | eResponse.23 | Response Mode to Scene | National |
| 125 | | eResponse.24 | Additional Response Mode Descriptors | National |
| 126 | | eScene.01 | First EMS Unit on Scene | National |
| 127 | | eScene.06 | Number of Patients at Scene | National |
| 128 | | eScene.07 | Mass Casualty Incident | National |
| 129 | | eScene.08 | Triage Classification for MCI Patient | National |
| 130 | | eScene.09 | Incident Location Type | National |
| 131 | | eScene.10 | Incident Facility Code |  |
| 132 | | eScene.11 | Scene GPS Location |  |
| 133 | | eScene.12 | Scene US National Grid Coordinates |  |
| 134 | | eScene.13 | Incident Facility or Location Name |  |
| 135 | | eScene.15 | Incident Street Address |  |
| 136 | | eScene.16 | Incident Apartment, Suite, or Room |  |
| 137 | | eScene.17 | Incident City |  |
| 138 | | eScene.18 | Incident State | National |
| 139 | | eScene.19 | Incident Zip Code | National |
| 140 | | eScene.20 | Scene Cross Street or Directions |  |
| 141 | | eScene.21 | Incident County | National |
| 142 | | eScene.24 | First Other EMS or Public Safety Agency at Scene to Provide Patient Care |  |
| 143 | | eSituation.01 | Date/Time of Symptom Onset | National |
| 144 | | eSituation.02 | Possible Injury | National |
| 145 | | eSituation.03 | Complaint Type |  |
| 146 | | eSituation.04 | Complaint |  |
| 147 | | eSituation.07 | Chief Complaint Anatomic Location | National |
| 148 | | eSituation.08 | Chief Complaint Organ System | National |
| 149 | | eSituation.09 | Primary Symptom | National |
| 150 | | eSituation.10 | Other Associated Symptoms | National |
| 151 | | eSituation.11 | Provider's Primary Impression | National |
| 152 | | eSituation.12 | Provider's Secondary Impressions | National |
| 153 | | eSituation.13 | Initial Patient Acuity | National |
| 154 | | eSituation.14 | Work-Related Illness/Injury |  |
| 155 | | eSituation.18 | Date/Time Last Known Well | National |
| 156 | | eSituation.20 | Reason for Interfacility Transfer/Medical Transport | National |
| 157 | | eTimes.01 | PSAP Call Date/Time | National |
| 158 | | eTimes.03 | Unit Notified by Dispatch Date/Time | National |
| 159 | | eTimes.05 | Unit En Route Date/Time | National |
| 160 | | eTimes.06 | Unit Arrived on Scene Date/Time | National |
| 161 | | eTimes.07 | Arrived at Patient Date/Time | National |
| 162 | | eTimes.09 | Unit Left Scene Date/Time | National |
| 163 | | eTimes.10 | Arrival at Destination Landing Area Date/Time |  |
| 164 | | eTimes.11 | Patient Arrived at Destination Date/Time | National |
| 165 | | eTimes.12 | Destination Patient Transfer of Care Date/Time | National |
| 166 | | eTimes.13 | Unit Back in Service Date/Time | National |
| 167 | | eTimes.17 | Unit Arrived at Staging Area Date/Time |  |
| 168 | | eVitals.01 | Date/Time Vital Signs Taken | National |
| 169 | | eVitals.02 | Obtained Prior to this Unit’s EMS Care | National |
| 170 | | eVitals.03 | Cardiac Rhythm / Electrocardiography (ECG) | National |
| 171 | | eVitals.04 | ECG Type | National |
| 172 | | eVitals.05 | Method of ECG Interpretation | National |
| 173 | | eVitals.06 | SBP (Systolic Blood Pressure) | National |
| 174 | | eVitals.07 | DBP (Diastolic Blood Pressure) |  |
| 175 | | eVitals.10 | Heart Rate | National |
| 176 | | eVitals.12 | Pulse Oximetry | National |
| 177 | | eVitals.14 | Respiratory Rate | National |
| 178 | | eVitals.16 | End Tidal Carbon Dioxide (ETCO2) | National |
| 179 | | eVitals.18 | Blood Glucose Level | National |
| 180 | | eVitals.19 | Glasgow Coma Score-Eye | National |
| 181 | | eVitals.20 | Glasgow Coma Score-Verbal | National |
| 182 | | eVitals.21 | Glasgow Coma Score-Motor | National |
| 183 | | eVitals.22 | Glasgow Coma Score-Qualifier | National |
| 184 | | eVitals.23 | Total Glasgow Coma Score |  |
| 185 | | eVitals.24 | Temperature |  |
| 186 | | eVitals.25 | Temperature Method |  |
| 187 | | eVitals.26 | Level of Responsiveness (AVPU) | National |
| 188 | | eVitals.27 | Pain Scale Score | National |
| 189 | | eVitals.28 | Pain Scale Type |  |
| 190 | | eVitals.29 | Stroke Scale Score | National |
| 191 | | eVitals.30 | Stroke Scale Type | National |
| 192 | | eVitals.31 | Reperfusion Checklist | National |
| 193 | | eVitals.32 | APGAR |  |
| 194 | | eVitals.33 | Revised Trauma Score |  |
| 195 | | itVitals.055 | Stroke Scale Score Value |  |

(B) In addition, each ambulance service shall review and report at least annually, and upon changes to any of the elements listed below, the following demographic information to the MATRIS website, at <https://matris.imagetrendelite.com/Elite/Organizationmatris/>. The full definitions for each of these demographic elements are available in the Massachusetts Ambulance Trip Record Information System (MATRIS) NEMSIS V3.5.0 data dictionary, which can be found on the Department’s website at [www.mass.gov/dph/oems/matris](http://www.mass.gov/dph/oems/matris). For reference, the list below includes the NEMSIS Element Number and the Element Name in the MATRIS V3.5.0 and NEMSIS data set, as well as the designation of National Element if the data element is included in the NEMSIS demographic minimum data set. There are 10 National Elements in this category.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Element Number** | **Element Name** | **National** |
| 1 | dAgency.05 | EMS Agency Service Area States | National |
| 2 | dAgency.06 | EMS Agency Service Area County(ies) | National |
| 3 | dAgency.09 | Primary Type of Service | National |
| 4 | dAgency.11 | Level of Service | National |
| 5 | dAgency.12 | Organization Status | National |
| 6 | dAgency.13 | Organizational Type | National |
| 7 | dAgency.14 | EMS Agency Organizational Tax Status | National |
| 8 | dAgency.25 | National Provider Identifier | National |
| 9 | dConfiguration.13 | Emergency Medical Dispatch (EMD) Provided to EMS Agency Service Area | National |
| 10 | dConfiguration.16 | Crew Call Sign | National |