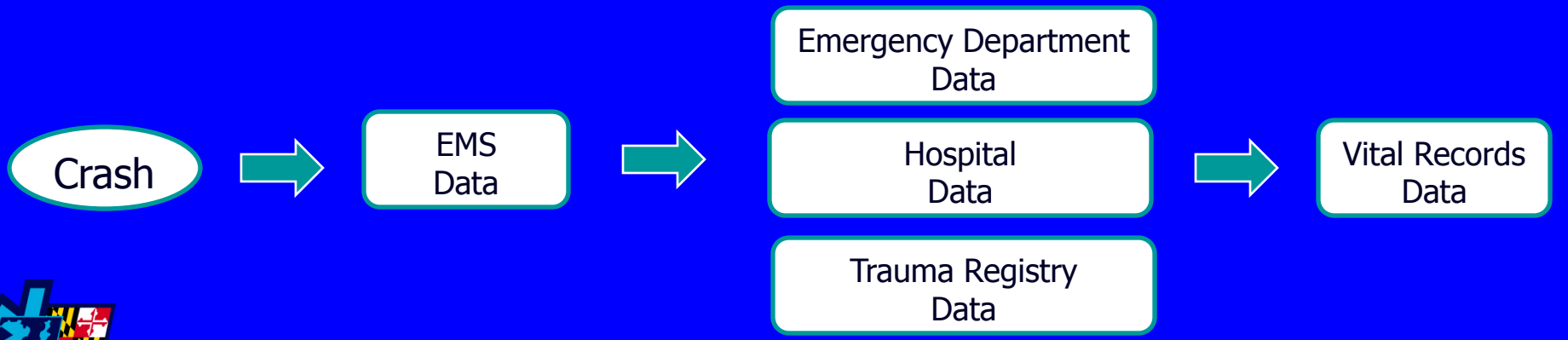
# electronic Maryland Emergency Medical Services Data System eMEDS Update

## Maryland Traffic Records Coordinating Committee

July 9, 2014 Meeting

# Injury Surveillance System (ISS)

- Provides Supplementary Crash Information through:
  - frequency, severity, nature of injuries
  - enables integration of data
  - permits accessibility of data

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# ISS Data Sets

- **EMS** - electronic Maryland Emergency medical services Data System **(eMEDS)**
- **ED and Hospital** - Health Services Cost Review Commission **(HSCRC)**
- **Trauma Registry** - Maryland Trauma Registry **(MTR)**
- **Vital Records** - Death Certificate and Multiple Cause of Death files

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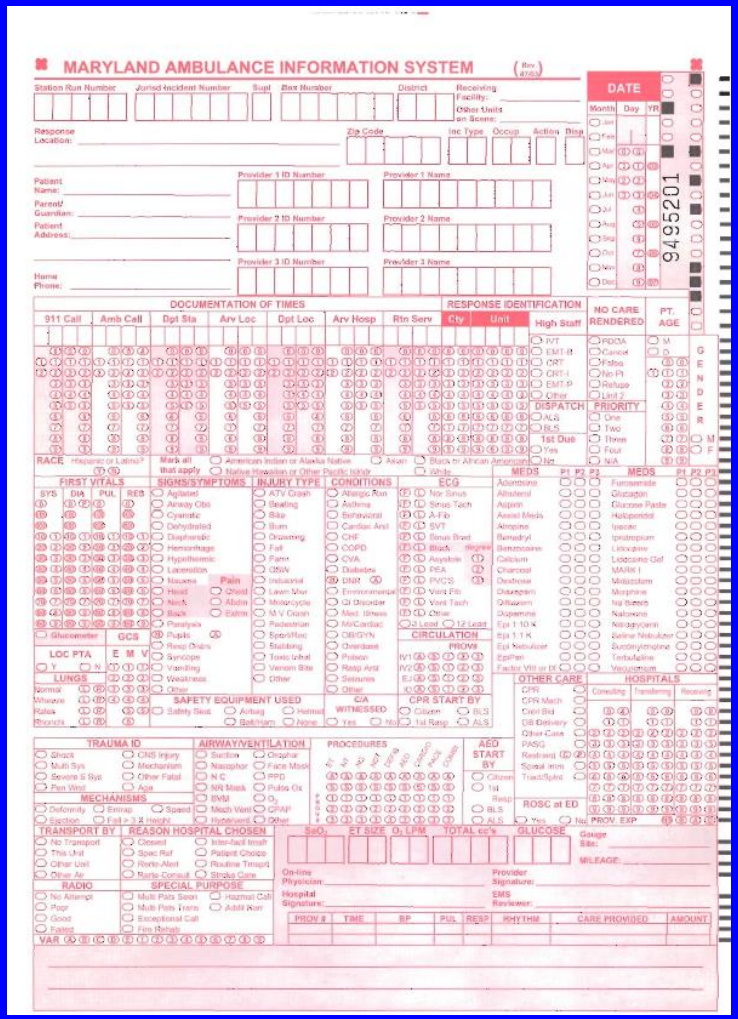
# EMS Original Data Source

## MAIS Runsheet


MARYLAND AMBULANCE INFORMATION SYSTEM

Station Run Number | Jurisd Incident Number | Suppl | Box Number | District | Receiving Facility | Other Units on Scene

DATE

Response Location | Zip Code | Inc Type | Occup | Action | Disp

Patient Name | Parent/ Guardian | Patient Address | Home Phone

Provider 1 ID Number | Provider 1 Name | Provider 2 ID Number | Provider 2 Name | Provider 3 ID Number | Provider 3 Name

9495201

DOCUMENTATION OF TIMES: 911 Call | Amb Call | Dpt Sta | Arv Loc | Dpt Loc | Arv Hosp | Rtn Serv

RESPONSE IDENTIFICATION: Cty | Unit | High Staff

NO CARE RENDERED | PT. AGE | GENDER

DISPATCH | PRIORITY

RACE | Mark all that apply

FIRST VITALS | SIGNS/SYMPTOMS | INJURY TYPE | CONDITIONS | ECG

MEDS | MEDS

LOC PTA | GCS | LUNGS | SAFETY EQUIPMENT USED | CPR START BY | CIRCULATION | OTHER CARE | HOSPITALS

TRAUMA ID | AIRWAY/VENTILATION | PROCEDURES | AED START BY | MECHANISMS | ROSC at ED

TRANSPORT BY | REASON HOSPITAL CHOSEN | SpO2 | ET SIZE | O2 LPM | TOTAL cc's | GLUCOSE

RADIO | SPECIAL PURPOSE

On-line Physician | Provider Signature | Hospital Signature | EMS Reviewer

PROV # | TIME | BP | PUL | RESP | RHYTHM | CARE PROVIDED | AMOUNT

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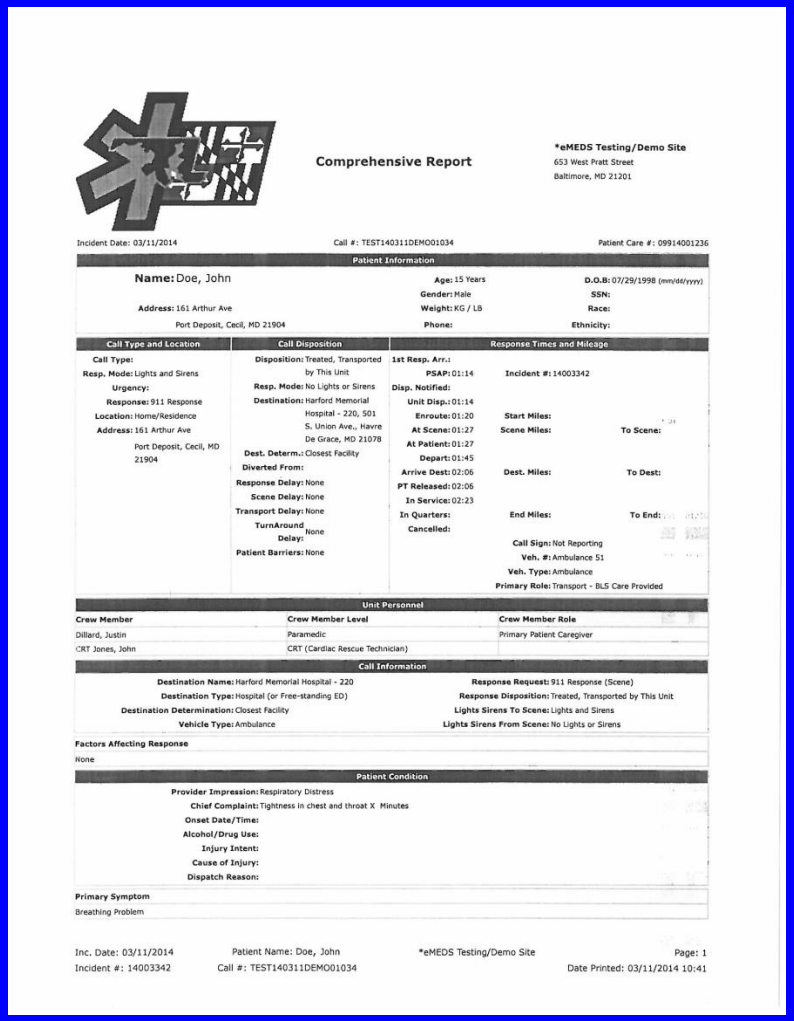
# EMS Current Data Source

## eMEDS Runsheet



**Comprehensive Report**

***eMEDS Testing/Demo Site**
653 West Pratt Street
Baltimore, MD 21201

Incident Date: 03/11/2014 | Call #: TEST140311DEMO01034 | Patient Care #: 09914001236

**Patient Information**

**Name:** Doe, John
**Address:** 161 Arthur Ave
Port Deposit, Cecil, MD 21904

**Age:** 15 Years
**Gender:** Male
**Weight:** KG / LB
**Phone:**

**D.O.B:** 07/29/1998 (mm/dd/yyyy)
**SSN:**
**Race:**
**Ethnicity:**

**Call Type and Location**

**Call Type:**
**Resp. Mode:** Lights and Sirens
**Urgency:**
**Response:** 911 Response
**Location:** Home/Residence
**Address:** 161 Arthur Ave
Port Deposit, Cecil, MD 21904

**Call Disposition**

**Disposition:** Treated, Transported by This Unit
**Resp. Mode:** No Lights or Sirens
**Destination:** Harford Memorial Hospital - 220, 501 S. Union Ave., Havre De Grace, MD 21078
**Dest. Determ.:** Closest Facility
**Diverted From:**
**Response Delay:** None
**Scene Delay:** None
**Transport Delay:** None
**TurnAround Delay:** None
**Patient Barriers:** None

**Response Times and Mileage**

**1st Resp. Arr.:**
**PSAP:** 01:14
**Disp. Notified:**
**Unit Disp.:** 01:14
**Enroute:** 01:20
**At Scene:** 01:27
**At Patient:** 01:27
**Depart:** 01:45
**Arrive Dest:** 02:06
**PT Released:** 02:06
**In Service:** 02:23
**In Quarters:**
**Cancelled:**

**Incident #:** 14003342
**Start Miles:**
**Scene Miles:**
**To Scene:**
**Dest. Miles:**
**To Dest:**
**End Miles:**
**To End:**
**Call Sign:** Not Reporting
**Veh. #:** Ambulance 51
**Veh. Type:** Ambulance
**Primary Role:** Transport - BLS Care Provided

**Unit Personnel**

| Crew Member | Crew Member Level | Crew Member Role |
|---|---|---|
| Dillard, Justin | Paramedic | Primary Patient Caregiver |
| CRT Jones, John | CRT (Cardiac Rescue Technician) | |

**Call Information**

**Destination Name:** Harford Memorial Hospital - 220
**Destination Type:** Hospital (or Free-standing ED)
**Destination Determination:** Closest Facility
**Vehicle Type:** Ambulance
**Response Request:** 911 Response (Scene)
**Response Disposition:** Treated, Transported by This Unit
**Lights Sirens To Scene:** Lights and Sirens
**Lights Sirens From Scene:** No Lights or Sirens

**Factors Affecting Response**
None

**Patient Condition**

**Provider Impression:** Respiratory Distress
**Chief Complaint:** Tightness in chest and throat X Minutes
**Onset Date/Time:**
**Alcohol/Drug Use:**
**Injury Intent:**
**Cause of Injury:**
**Dispatch Reason:**

**Primary Symptom**
Breathing Problem

Inc. Date: 03/11/2014 | Patient Name: Doe, John | *eMEDS Testing/Demo Site | Page: 1
Incident #: 14003342 | Call #: TEST140311DEMO01034 | Date Printed: 03/11/2014 10:41

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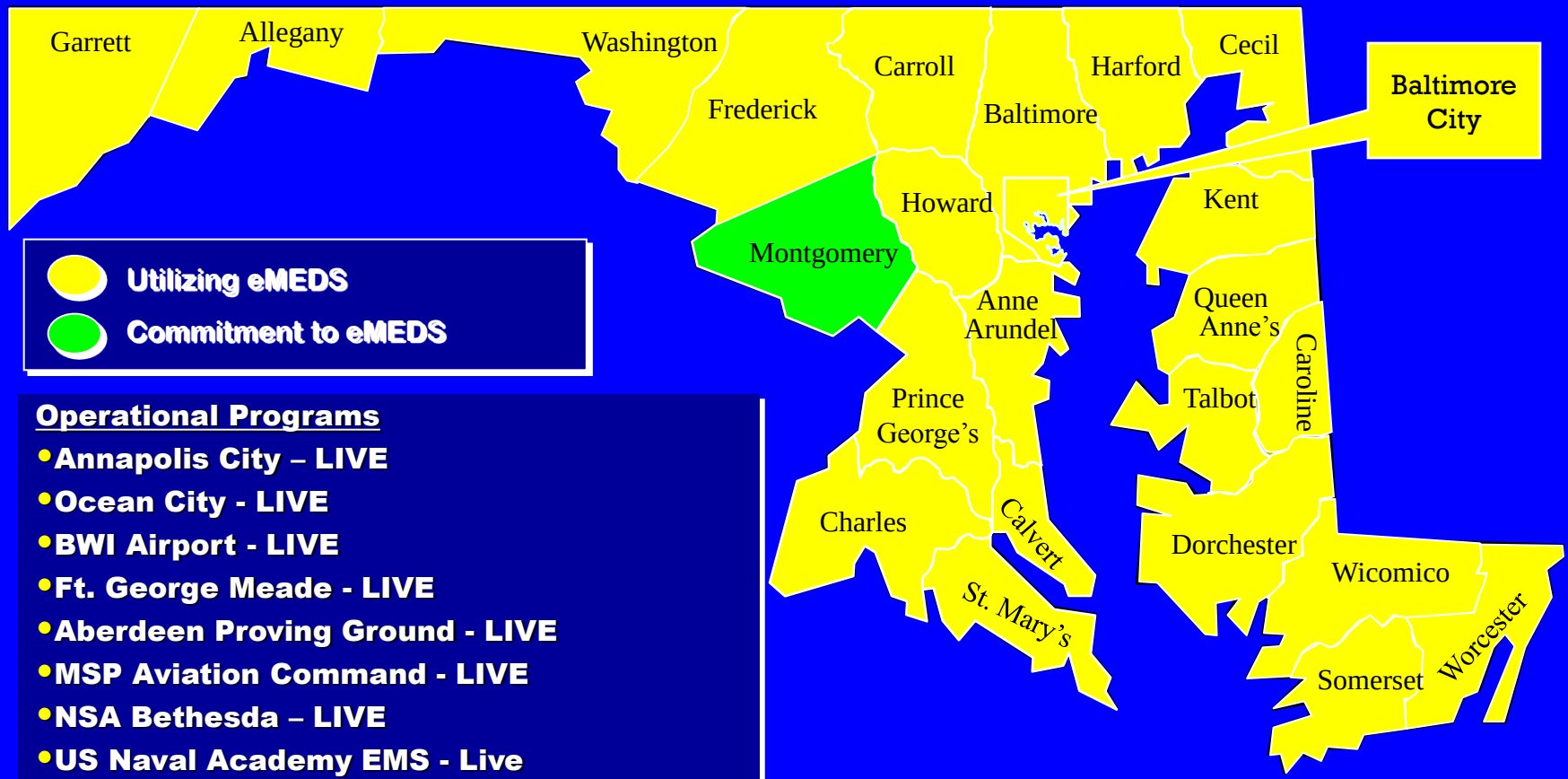
# Existing eMEDS Implementation

## Phased-in starting March, 2012




**Operational Programs**

- Annapolis City – LIVE
- Ocean City - LIVE
- BWI Airport - LIVE
- Ft. George Meade - LIVE
- Aberdeen Proving Ground - LIVE
- MSP Aviation Command - LIVE
- NSA Bethesda – LIVE
- US Naval Academy EMS - Live
- 20+ Commercial Services - LIVE

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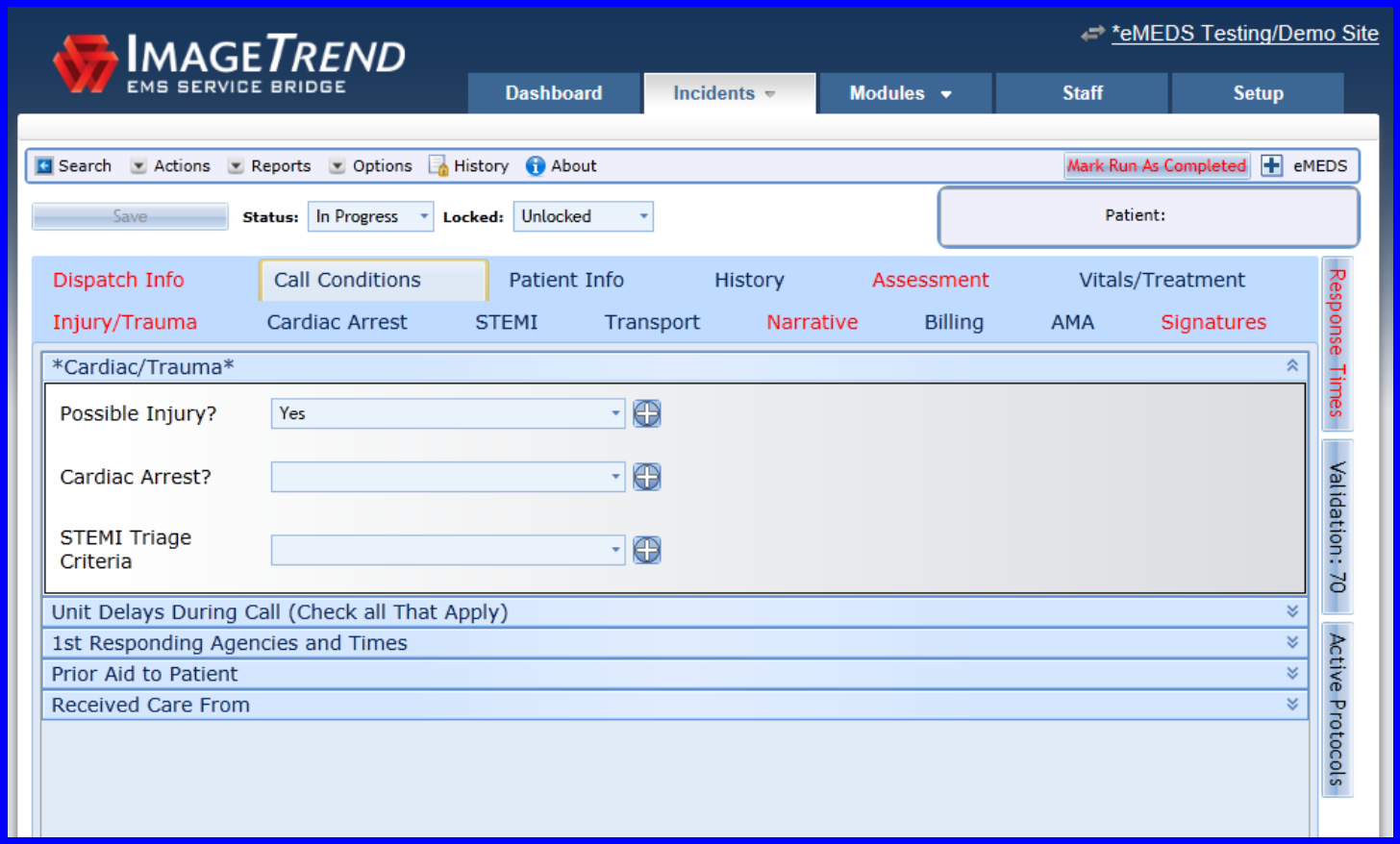
# eMEDS Patient Care Record

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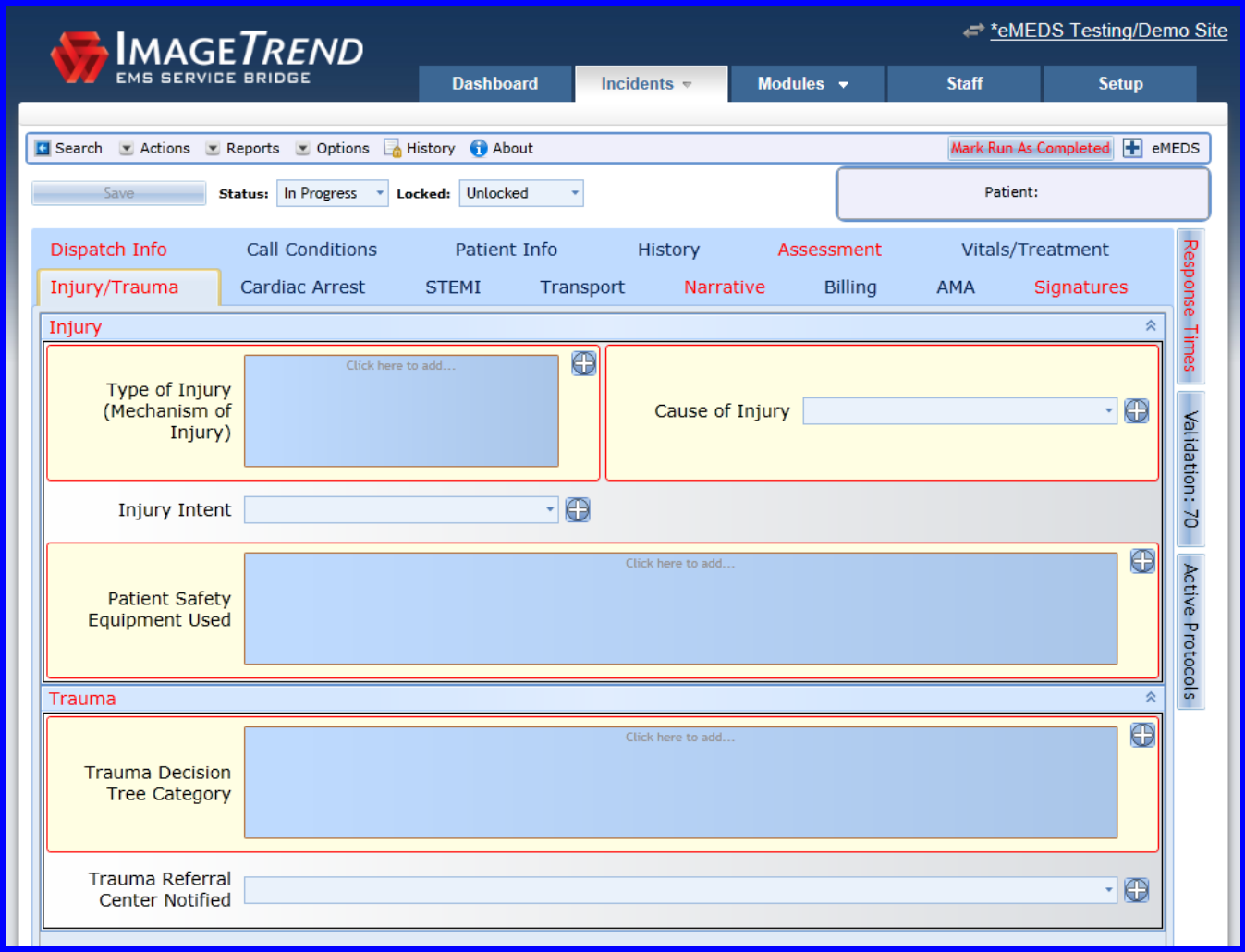
# eMEDS Patient Care Record

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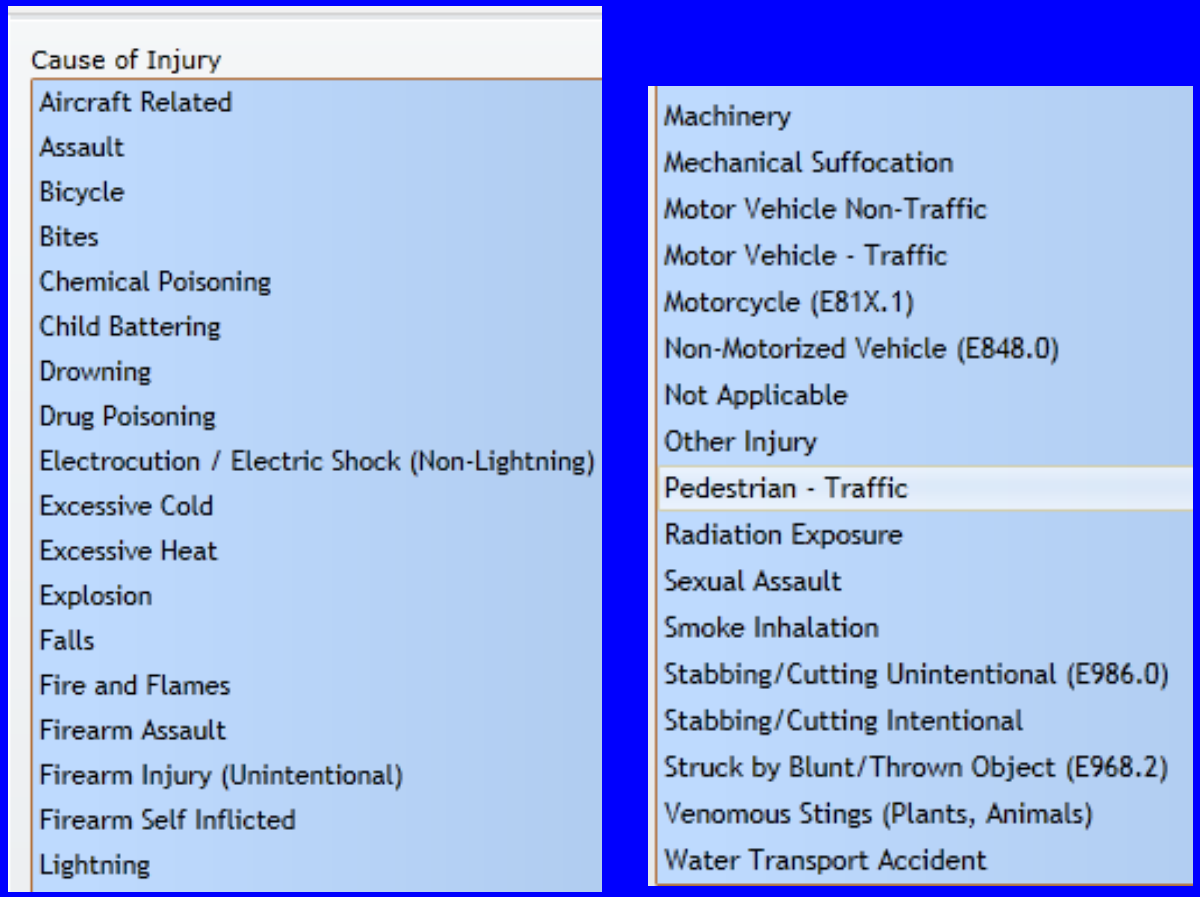
# eMEDS Injury Types

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# eMEDS – All Records Distribution for Injuries

## Calendar Year 2013

| Cause of Injury (E10.01) | Count of Events | |
|---|---|---|
| All | 650,744 | |
| Aircraft Related | 21 | 0.0% |
| Assault | 7,160 | 8.1% |
| Bicycle | 999 | 1.1% |
| Bites | 647 | 0.7% |
| Chemical Poisoning | 51 | 0.1% |
| Child Battering | 13 | 0.0% |
| Drowning | 26 | 0.0% |
| Drug Poisoning | 39 | 0.0% |
| Electrocution / Electric Shock (Non-Lightning) | 121 | 0.1% |
| Excessive Cold | 16 | 0.0% |
| Excessive Heat | 178 | 0.2% |
| Explosion | 86 | 0.1% |
| Falls | 39,460 | 44.8% |
| Fire and Flames | 403 | 0.5% |
| Firearm Assault | 680 | 0.8% |
| Firearm Injury (Unintentional) | 108 | 0.1% |
| Firearm Self Inflicted | 185 | 0.2% |
| Lightning | 11 | 0.0% |
| Machinery | 689 | 0.8% |
| Mechanical Suffocation | 33 | 0.0% |
| Motor Vehicle - Traffic | 16,543 | 18.8% |
| Motor Vehicle Non-Traffic | 2,231 | 2.5% |
| Motorcycle (E81X.1) | 1,232 | 1.4% |
| Non-Motorized Vehicle (E848.0) | 107 | 0.1% |
| Other Injury | 11,790 | 13.4% |
| Pedestrian - Traffic | 1,956 | 2.2% |
| Radiation Exposure | 8 | 0.0% |
| Sexual Assault | 65 | 0.1% |
| Smoke Inhalation | 19 | 0.0% |
| Stabbing/Cutting Intentional | 1,373 | 1.6% |
| Stabbing/Cutting Unintentional (E986.0) | 998 | 1.1% |
| Struck by Blunt/Thrown Object (E968.2) | 757 | 0.9% |
| Venomous Stings (Plants, Animals) | 35 | 0.0% |
| Water Transport Accident | 57 | 0.1% |
| | 88,097 | 100% |
| Not Available | 586,617 | |

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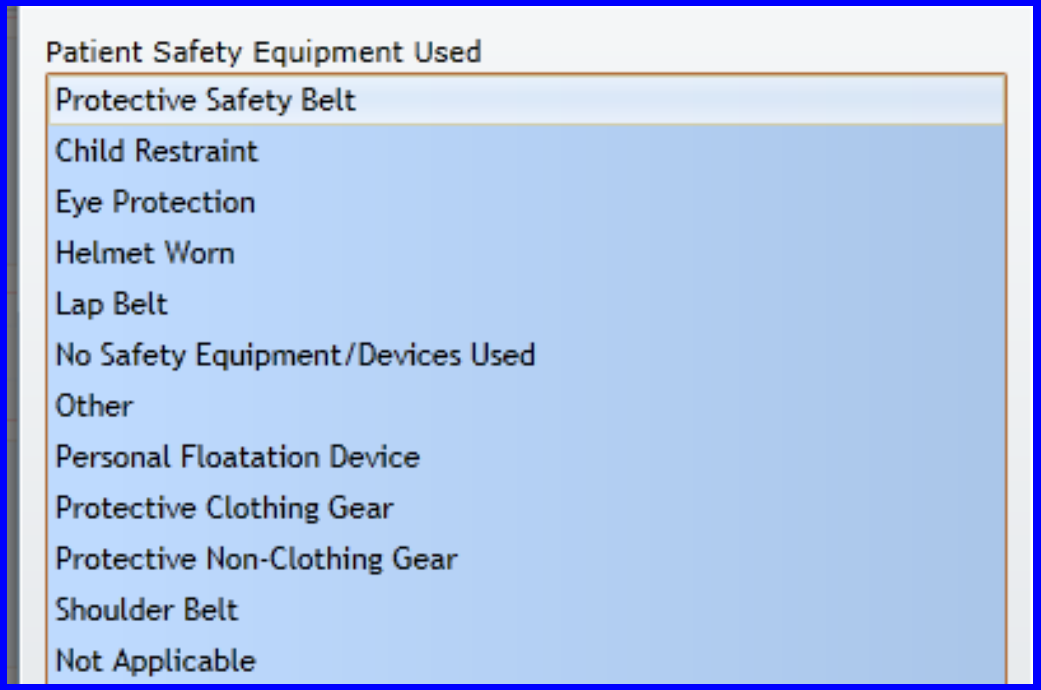
# eMEDS Safety Equipment Used

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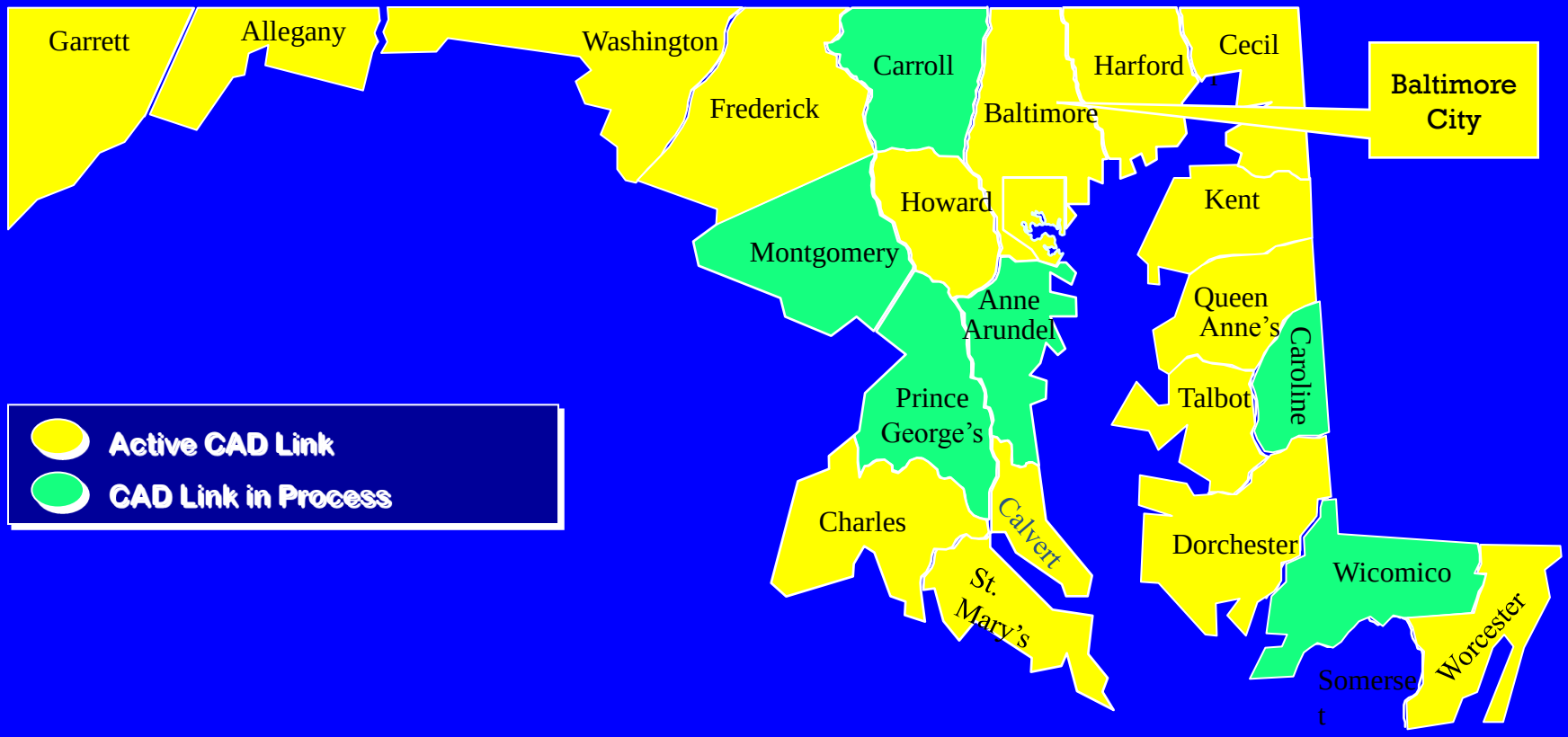
# eMEDS - CAD Integration

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# eMEDS Integration Capabilities

- Crash Outcomes Data Evaluation System **(CODES)**
- National EMS Information System **(NEMSIS)**
- In-Patient/Out-Patient Discharges **(HSCRC)**
- Maryland Trauma Registry **(MTR)**
- Fatal Accident Reporting System **(FARS)**
- Office of the Chief Medical Examiner **(OCME)**

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# eMEDS Interface Capabilities

- Validation Score
- Protocols prompting
- Computer Aided Dispatch (CAD)
- Hospital Dashboard (ePCR exchange)
  - Initial transport record link
  - Non-Transport record(s) link
- Advance Automatic Crash Notification (AACN)
- Other Surveillance (Cardiac, Heat, etc.)

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