KY State Ambulance Reporting System (KStARS)

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State Website: https://kbems.ky.gov/KSTARS/Pages/default.aspx
National Website: http://www.nemsis.org

Why is it used?
- National Emergency Medical Services Information System (NEMSIS) data provides consistent definitions for elements used in EMS and prehospital care settings.
- Impacts all EMS clinicians and agencies across the continental United States and associated territories.
- To evaluate and improve patient care.
- To help improve EMS curriculums.
- Provides data for all EMS incident responses, including natural disasters and mass casualty events.

What data is collected?
NEMSIS-based prehospital patient care report data associated with EMS calls, including:
- Demographics.
- Injury severity.
- Vital signs.
- Treatments provided.
- Medications administered.
- Location.
- Destination.

How is data collected?
- Collected by Kentucky-certified and/or licensed EMS practitioners on behalf of licensed EMS agencies.
- Data is based on the NEMSIS Version 3 standard and collected in certified-compliant software packages, and then submitted to the KStars database using web services or direct entry methods.
- All licensed EMS agencies are required by 202 KAR 7:540 to submit to KStars using the latest state-adopted version of NEMSIS within 120 hours of incident completion.

Data Strengths:
- The current, state-wide, average incident submission timeliness is approximately 33 hours, and the state-wide median incident submission timeliness is approximately 3 hours, an improvement over years past.

Data Limitations:
- Some agencies have much slower than average data submission timeliness, making state-wide real-time use and data analytics less than ideal.
- Reports limited to flat file formats like CSV and XML.
- Elements with multiple values (e.g., vital signs) cause a repeating row in the report that makes one incident appear across multiple rows.
- Validation rules exist to improve data quality but complete and accurate adoption of the validation rules amongst the various patient care report software vendors can be difficult to ensure.

How is the system evaluated?
- Validation rules are used to enforce mandatory and recommended data element collection, but patient care reports may still be submitted without the desired 100-point validation scores.

Data Set Availability:
- Collected data is part of a national standard with comprehensive data dictionaries at the NEMSIS website.
- Fully identified data sets are not available to the public.
- Portions of the data set can be shared and identified data can be made available to research organizations provided the requestor enters into a data sharing agreement with the Kentucky Board of Emergency Medical Services and the request gains approval from any associated Human Subjects Review Board and/or IRB.

Data Release Policy:
- Any data released to the public will be de-identified.
- Requests are accepted through the open records procedure at KY Board of EMS Legal Services.

Data Publications:
- The Kentucky Board of Emergency Medical Services strives to publish an annual report with a variety of interesting topics, available at kbems.ky.gov

Data Citation:
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