Objectives

- Review of vehicle telemetry in field triage
- Recommendations of CDC expert panel
- Discuss current activities and next steps

“Vehicle Telemetry data consistent with high risk of injury”
Vehicle Telemetry

- Integration of vehicle’s electrical architecture, cellular communication, GPS systems, and voice recognition:
  - GPS, directions, routing
  - Fleet management and vehicle tracking
  - Food safety and refrigerated cargo
  - AACN
  - Other-insurance, road hazards, maintenance

Emergence of Telematics

- BMW
- Ford
- Nissan
- OnStar
- Toyota
Advanced Automatic Collision Notification

- Notification that crash has occurred
- Location of the crash
- Interaction with occupants
- Provide information regarding force, mechanics, and energy of a crash that may help predict severity of injury and allocate resources

Hypothesis

- VTD/AACN data can be used to accurately predict injury severity.
- VTD/AACN data can reduce the morbidity and mortality of motor vehicle crashes by improving field triage.
Expert Panel

- Advanced Automatic Collision Notification and Triage of the Injured Patient, Expert Panel
  - PSAPs (9-1-1 call centers)
  - EMS
  - Emergency Medicine
  - Trauma Surgery
  - Engineering
  - Vehicle Telematics Providers
  - NHTSA
  - HRSA-EMS for Children
  - CDC

Panel Findings and Recommendations

- AACN data transmission shows promise in improving outcomes by:
  - Predicting the likelihood of serious injury
  - Decreasing prehospital response times
  - Assisting with destination decisions
  - Decreasing time to definitive trauma care
  - Decreasing death and disability from MVCs
Panel Findings and Recommendations

- Seatbelt use by an occupant significantly influences injury severity.
  - Seatbelt use should be included
- AACN should obtain specific occupant information that is known to alter or influence injury severity response to injury
  - Age and gender

Panel findings and recommendations

- Further refinement will require further investigations and data analysis.
- Pilot studies should be implemented as soon as possible using the AACN protocol.
- A system of real-time communications should be established between AACN providers and components of the trauma system

Panel findings and recommendations

- National system to collect data
  - Built upon existing systems
- Extrication
- Glasgow Coma Score
Now what?

Key Findings

- Education
- AACN could:
  - Impact response
  - Improve patient care
  - Impact destination decisions
- Consistent information
- Local use and variance
- More research needed
Current activities

- Continued collaboration CDC/NHTSA
  - Lives saved
- Meetings
  - Research study design
  - Focus on protocol utilization and common themes

Delta V
PDOF
Age
Belt Use

Next steps

- Consistency
  - Integration, communication, education
- Research
  - Can AACN predict injury severity?
  - Can AACN assist with destination decisions and resource allocation?
  - Does it matter?
## Conclusion

- AACN is increasingly prevalent
- Potential exists to improve triage
  - Research needed
- Collaboration
- Consistency