SURVEYING EMS PROVIDERS ON END-OF-LIFE CARE KNOWLEDGE

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Introduction

Aging Population

- Opportunities on planning the end of life
  - Of 2007 ED visits made by patients > 75 y.o., 45% arrived by ambulance

- EMS interfaces
  - Ambulance transports of Medicare beneficiaries increased 33%, 2004-2010 (US Govt. Accountability Office)
Number of Older Americans, 1960-2040 (in millions)

Figure 3. Expanding Aging U.S. Population

Survey Question Types

* 20 total multiple choice questions
* 2 certifying questions
  * Level of certification (Georgia)
    * EMT-Intermediate (being phased out)
    * EMT-Advanced (new)
    * EMT-Paramedic
  * Years of practice at highest certification level
    * < 1 year
    * 1-4 years
    * 5-10 years
    * >10 years
Survey Question Types

* 5 Experiential questions
  * Never
  * Once
  * 2-4 times
  * More than 4 times
Surveying EMS Providers on End-of-Life Knowledge

Survey Question Types

* Content Questions
  * 4 “Select all that apply”
  * 5 Yes vs. No vs. N/A
  * 1 on interventions
    * Oxygen
    * Glucose
    * Intravenous fluid
    * Narcotics
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* Survey Question Types
  * Content Questions (continued)
    * 1 on understanding of official documents
    * DNR Order
    * Living Will
    * Durable Power of Attorney for Healthcare
    * Georgia Advanced Directive
    * 2 open-ended qualitative questions
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Survey Process
- Design lead by EMS fellow & 3 supporting EMS faculty
- Pilot Study
  - Performed at municipality fire first response service
  - 7 providers
  - Average time to completion: 10 minutes
  - Reformatting of spacing between questions
  - Clarity of wording confirmed
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* Survey Process (continued)
* Administered to 182 providers at the 4-session quarterly Grady EMS All-Hands meetings
* On-site collection of forms at the end of each of 4 sessions
* Original paper data sheets secured
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* Survey Analysis
* Based at Emory University School of Medicine
  * Department of Emergency Medicine
    * Section of Prehospital and Disaster Medicine (designers and on-site administrators of survey)
    * Center for Injury Control (literature search, question formatting, data storage and tabulation)
  * Palliative Care Center (statistical and qualitative data analysis)
Survey Analysis Strategies

- Results stratification
  - By certification levels
    - EMT-Intermediate (EMT-I) & Advanced EMT (AEMT)
    - EMT-Paramedic (EMT-P)
  - By longevity of professional service
    - Less than 4 years
    - Greater than 4 years
- Answers to qualitative questions 6 & 20 analyzed by 4 reviewers who independently formed themes → theme coalescence by independent researcher for analysis
Qualitative Questions

6) “Did you feel uncomfortable transporting this (hospice) patient?”... ”If yes, please list the issue that made you uncomfortable:”

20) “What challenges or difficulties have you had or experienced in dealing with hospice patients?”
Themes of Qualitative Questions Responses

* Involved the following parties interfacing EMS crews
  * Patient
  * Family members
  * Guardian
  * Hospice program personnel
  * Patient physician
Themes of Qualitative Questions Responses

* EMS crew emotional tension
  * Conflict in traditional mission & its training to save life with the imminent inevitability of death
    * Tension between traditional therapeutic responses & non-traditional directives contradicting them
  * Involuntary insertion of providers in involved party disagreements
* Empathy with both patient & family members’ predicament
Themes of Qualitative Questions Responses

* End-of-Life documentation (DNR, DPOAH, living will, advanced directive, etc.)
  * Lack of uniformity in processing & filing documents (electronic, paper) → inaccessibility to crews
  * Recognition of documents authenticity & legality
  * Understanding of functional (EMS-related) meaning of documents
  * Provisions for contradicting document directives

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Themes of Qualitative Questions Responses

* Involved party interfaces
  * Comprehension of circumstances, plans, & related documentation
  * Reversal of decisions & appropriate documentation of such
  * Inter-party disagreements about terminal care plans
  * Contingent courses of action for sudden changes in clinical condition

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Themes of Qualitative Questions Responses

* Vested interest of EMS management in patient transport for reimbursement
  * To ED
  * To other than ED
CONCLUSIONS

- EMS care of those at the end of life increasing
- EMS providers need clarity of guidance (med directors) & conduct (operations) of this care
- Our survey will inform curriculum design
- Organizations concerned with EMS education should contribute to curriculum design and teaching