



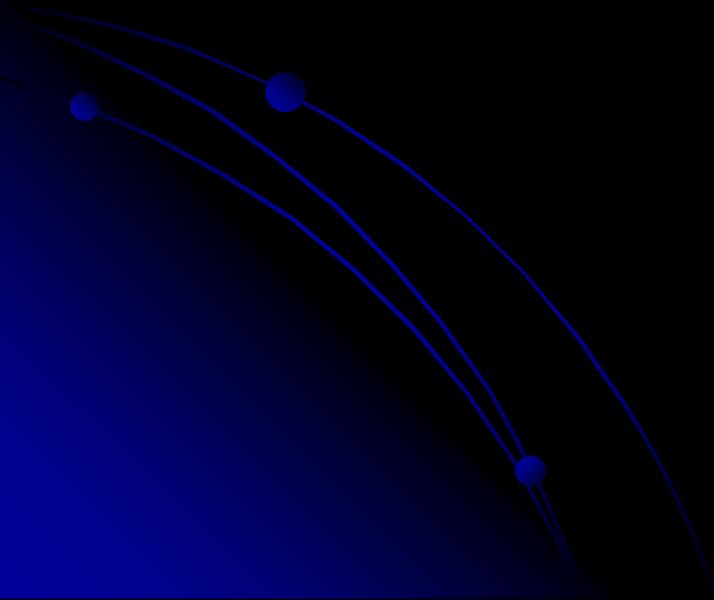
Community Paramedicine and Home Hospice

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Flight For Life
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Disclosures

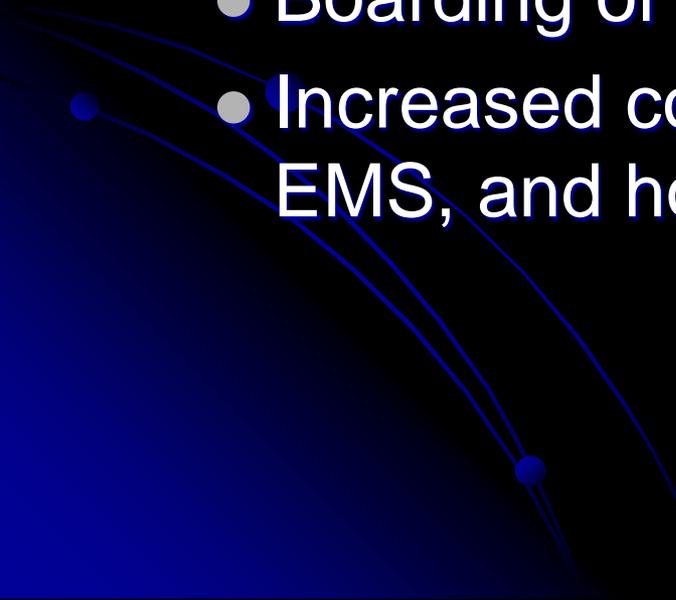
- No financial disclosures



Objectives

- Reduce calls to 911, thereby reducing number of discharges from home hospice
- Determine patient and family satisfaction of program through surveys
- Obtain input from hospice nurses and EMS personnel on program success
- Modify and expand program according to results of surveys

History

- ED use is on the rise, straining EMS systems
 - Increased ED wait times
 - Crowding
 - Boarding of admitted patients in the ED
 - Increased costs for patients, consumers, EMS, and hospitals
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History

- In 2014, there were 136.3 million ED visits
 - Increase from 131 million visits in 2011
- 14 to 27% of ED visits are for non-emergent reasons
- Frequent utilizers comprise 8% of ED patients, but 28% of ED visits
- Misusers represent a relatively small, but disproportionate share of healthcare costs
 - \$38 billion in wasteful spending annually
 - Could save \$4.4 billion annually

History

- Increased use of EMS and EDs
 - Lack of primary care physicians
 - Growing population with multiple chronic co-morbidities
 - Lack of mental health services
 - Homelessness
 - Social factors
- 

History

- EMS traditionally responded to acute illness and injuries
- Currently, up to 40% of EMS calls are for non-emergent reasons
- EMS provides link to high-risk high-utilizer patients
 - Canada, England, Australia, Fort Worth, Eagle Valley

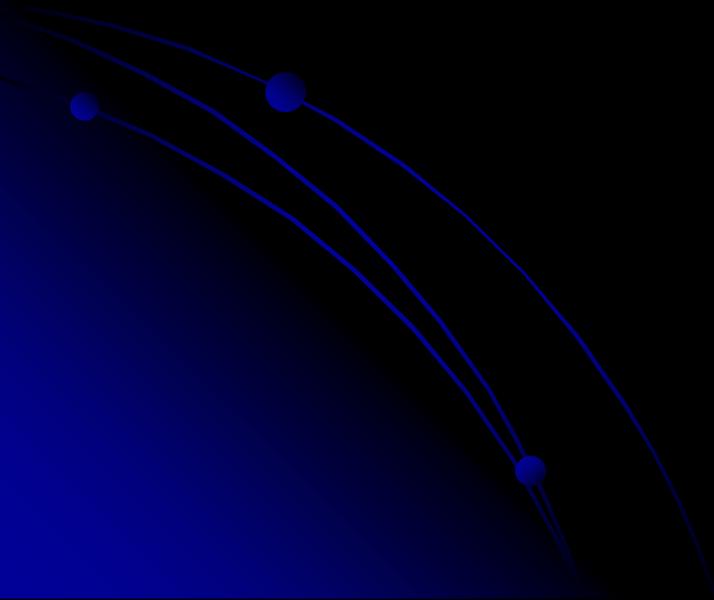
History

- Work with patient's medical home
 - Provide medical care
 - Provide social support
 - Work as an extender of the PCP



Goals and Objective

- To determine if a fire-based EMS system could effectively reduce the number of unnecessary hospice-based discharges

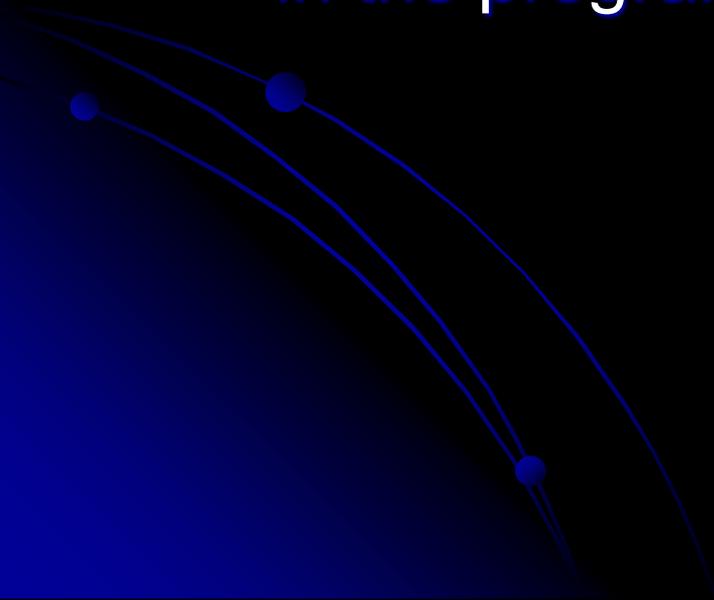


Methods

- Development of surveys to be distributed to patient families, hospice nurses, and EMS personnel
- Determine at-risk patients, followed by an in-home assessment
- Enter patient information into CAD
- Mail survey with self-addressed stamped envelope following death of the patient

Data Analysis and Evaluation

- Goal is to assess 100 surveys each from families, hospice nurses, and EMS personnel
 - Assess successes and areas for improvement in the program



Survey for Families of Hospice Patients

1. Was your family member's hospice care your first experience with hospice services for a close friend or family member?
 - a. Yes
 - b. No

2. Was this your first experience with a community paramedic participating in the hospice care of a close friend or family member?
 - a. Yes
 - b. No

3. Did the community paramedic explain the kinds of care and services they could give you and your family member?
 - a. Yes
 - b. No

4. While your family member was in hospice care, did you contact the community paramedic for questions or help with the care of your loved one?
 - a. Yes
 - b. No

5. While your family member was in hospice care, did you call 911 at any point?
 - a. Yes
 - b. No

6. Did the community paramedic respect your needs and preferences?
 - a. Yes
 - b. No

7. Did the community paramedic and responding EMS agency treat you and your family member with dignity and respect?

- a. Yes
- b. No

8. Did you feel the community paramedic and responding EMS agency cared about you and your family member?

- a. Yes
- b. No

9. If you called 911, was your family member transported to the Emergency Department?

- a. Yes
- b. No

10. Why did you or your family member call 911?

a. _____

11. If you called 911, why didn't you call the hospice service instead?

a. _____

12. Did the community paramedic or responding agency assist you and your family member respectfully and to your expectations when you called 911?

- a. Yes
- b. No

13. Did the home hospice nurse also come to the home when 911 was called?

- a. Yes
- b. No

14. What other services would you have liked to see from your community paramedic?

a. _____

Survey for Hospice Team

1. Did the community paramedic fulfill your expectations for service to the patient and family?
 - a. Yes
 - b. No

2. When a patient or family called 911, were you contacted?
 - a. Yes
 - b. No

3. If you were contacted following a 911 call, who did you speak to?
 - a. Community Paramedic
 - b. Responding Crew
 - c. Dispatcher
 - d. Patient
 - e. Family
 - f. Hospice Service

4. Did you feel the community paramedic and responding EMS agency treated the patient and family with dignity and respect?
 - a. Yes
 - b. No

5. How satisfied were you with the community paramedicine hospice services?
 - a. Extremely
 - b. Very
 - c. Somewhat
 - d. Not at all

6. How satisfied were you with the responding 911 agency's services?

- a. Extremely
- b. Very
- c. Somewhat
- d. Not at all

7. Could you differentiate the role between the community paramedic and the responding crew?

- a. _____

8. What other services would you have liked to see from your community paramedic?

- a. _____

Survey for Responding Crew

1. Was this your first time responding for this hospice patient?
 - a. Yes
 - b. No

2. Did the hospice community paramedic also respond to the scene?
 - a. Yes
 - b. No

3. Did you contact the hospice nurse?
 - a. Yes
 - b. No

4. Did you transport the patient to the emergency department?
 - a. Yes
 - b. No

5. Were you comfortable in your role on scene with the hospice patient and/or family?
 - a. Yes
 - b. No

6. Do you feel you advocated for the needs of the patient and family?
 - a. Yes
 - b. No

7. Did you feel undue pressure while on scene with the hospice patient?
 - a. Yes
 - b. No

8. Were you satisfied with the overall encounter and experience?

a. Yes

b. No

9. How did the patient and/or family respond upon your arrival?

a. _____

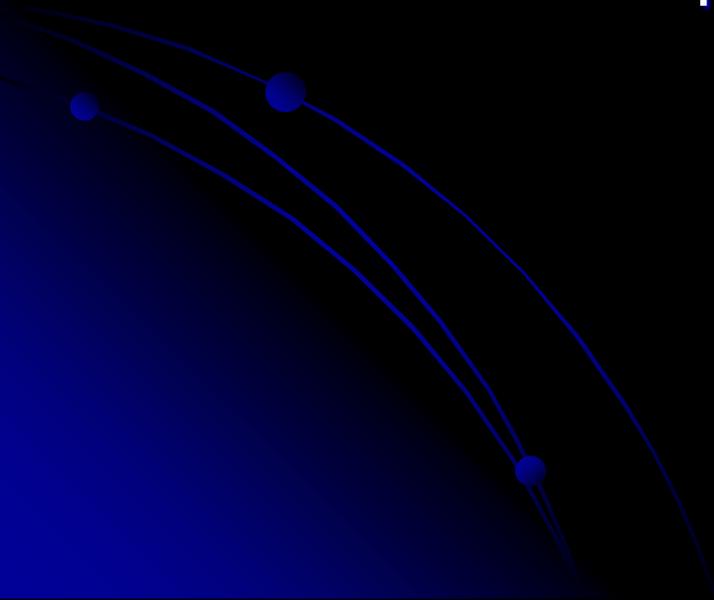
10. What do you feel you could have done differently on scene for this patient or family?

a. _____

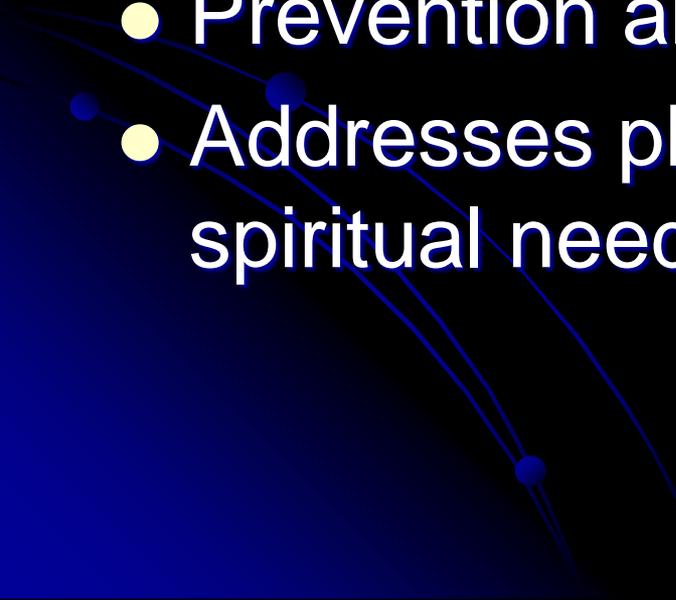
11. Please provide any additional comments you'd like to share pertaining to the program below or on the back of this survey.

Intervention Strategies

- Very little peer-reviewed literature
 - Due to lack of funding and evolving nature of community paramedicine
 - International programs have been referenced when developing programs in the U.S.



Hospice

- Terminally ill patient with less than six months to live
 - One-half million patients at any given time on hospice in the United States
 - Prevention and relief of suffering
 - Addresses physical, psychosocial, and spiritual needs
- 

Literature

- Brown et al. determined palliative care protocols among EMS systems
 - Survey sent to 249 agencies in 200 cities
 - Response from 60.5% of cities
 - 47.2 million inhabitants
 - Only 7 cities had palliative care protocols
 - Serving 2.98 million citizens
- 

Literature

- Twenty-two cities without protocols are in California
- Honolulu and Baltimore are in states with specific palliative care protocols
- Milwaukee, seventeenth in size, did not have a protocol
- The largest city to report a protocol was Dallas, eighth in size

Literature

- Limitations
 - No definition of palliative care
 - Agencies determined if they had protocols based on their interpretation
 - Only one city in each state with a statewide protocol responded to the survey
 - No data collected for rural or suburban communities
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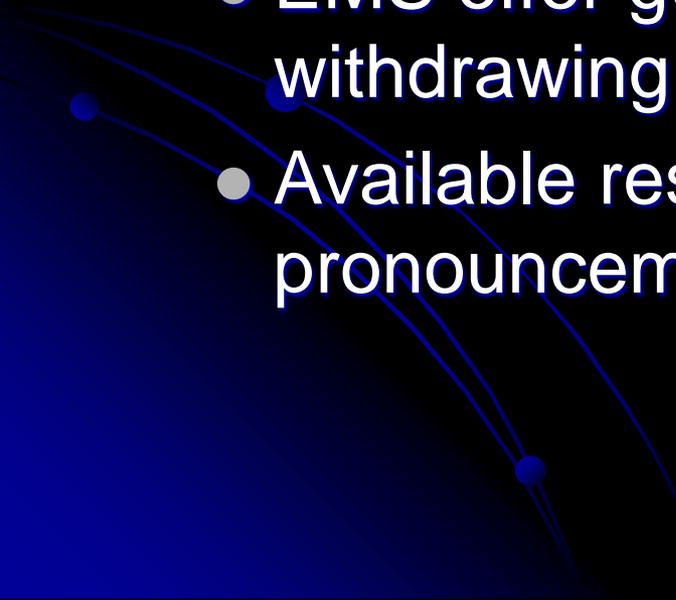
Literature

- Stone et al. assessed paramedics' attitudes during end-of-life situations, frequency these situations were encountered, and training and preparation for these situations
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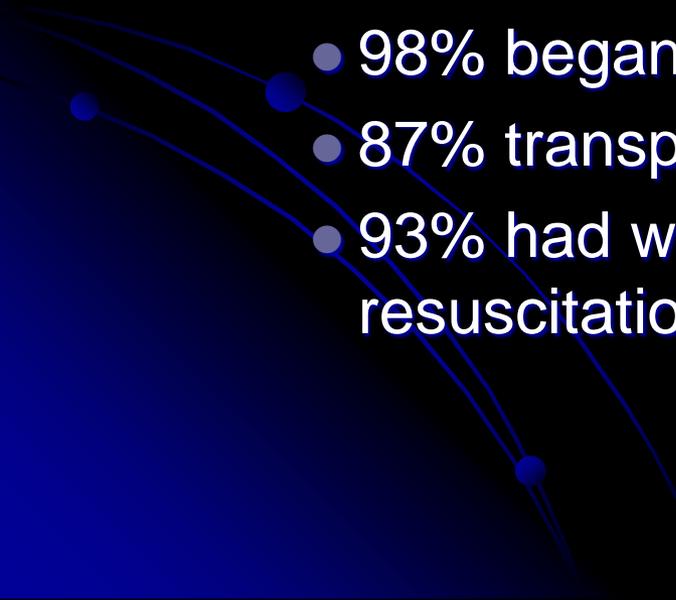
Literature

- Surveys administered
 - Attitudes and beliefs about end-of-life care
 - Frequency of end-of-life situations
 - Honoring advanced directives
 - Communicating death
 - Ending resuscitation
 - Extent of training for end-of-life situations
 - Compare importance placed on end-of-life issues

Literature

- Questions about clinical practice
 - How often DNR orders of uncertain validity and verbal DNR orders are encountered
 - Transport of hospice patients
 - EMS offer guidelines for withholding or withdrawing care
 - Available resources when field pronouncement occurs
- 

Literature

- 628 paramedics received the survey
 - 235 responded
 - 95% believed written requests should be honored
 - 59% believed verbal requests should be honored
 - 98% were involved in a questionable resuscitation
 - 98% began ACLS on a terminal patient
 - 87% transported a hospice patient to the ED
 - 93% had written guidelines to withhold resuscitation
- 

Literature

- Paramedics reported being poorly prepared for end-of-life situations
 - 70% reported it “very important” to understand advanced directives
 - 40% reported being well prepared
 - 90% reported it “very important” to know when to honor advanced directives
 - 59% felt well prepared
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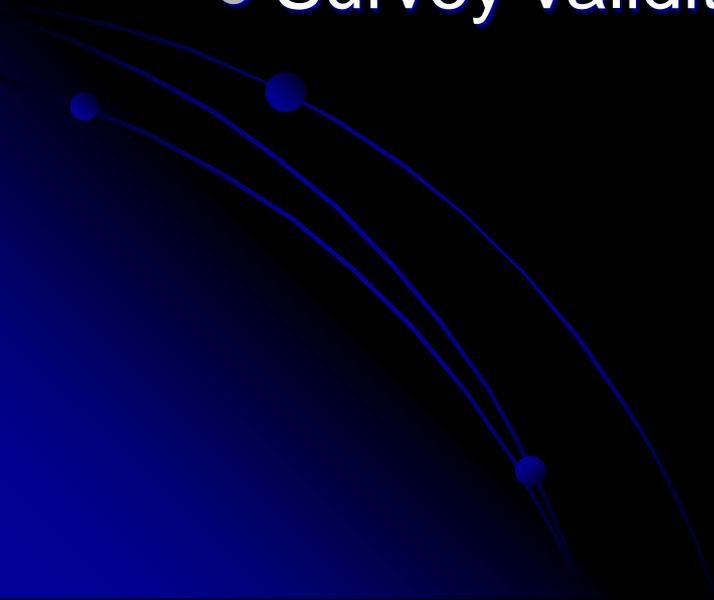
Literature

- Paramedics reported being poorly prepared for end-of-life situations
 - 75% felt it “very important” to honor verbal requests
 - 59% felt well prepared
 - 79% felt it “very important” to communicate death with a patient’s family or friends
 - 48% felt well prepared to do so

Literature

- Stone concluded
 - Confusion exists amongst EMS providers on end-of-life decision making and their implications
 - Protocols must be carefully written and guided by:
 - Engaged medical directors
 - Palliative care specialists
 - Public education campaigns
 - Development of public policy

Literature

- Limitations
 - Small sample size in only two cities
 - Training and protocols differ significantly between EMS systems
 - Survey validity was not tested
- 

Literature

- Waldrop et al. explored:
 - Perceptions of different types of end-of-life calls
 - Signs and symptoms of dying in the prehospital setting
 - Knowledge of Medical Orders for Life Sustaining Treatment (MOLST) forms
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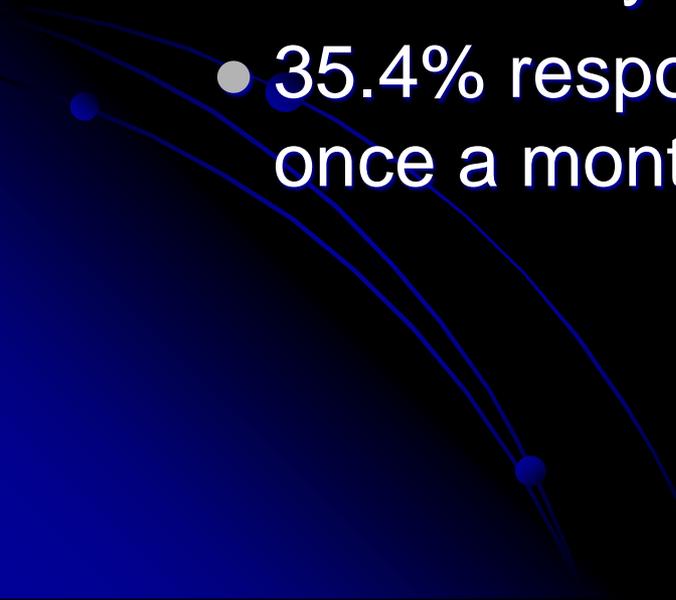
Literature

- 16 states have mature or fully endorsed Physician Orders for Life Sustaining Treatment (POLST) or MOLST forms
 - 27 more are in process of developing
- May influence end-of-life care decision making and health care utilization
- State regulations can underscore the “duty to treat”

Literature

- Surveys given to 208 providers
 - 85.6% participation
 - 76 EMTs
 - 102 Paramedics
 - 47.8% responded to a nursing home every shift, while 34% responded once a week
 - 42% responded to an assisted living facility once or more per week

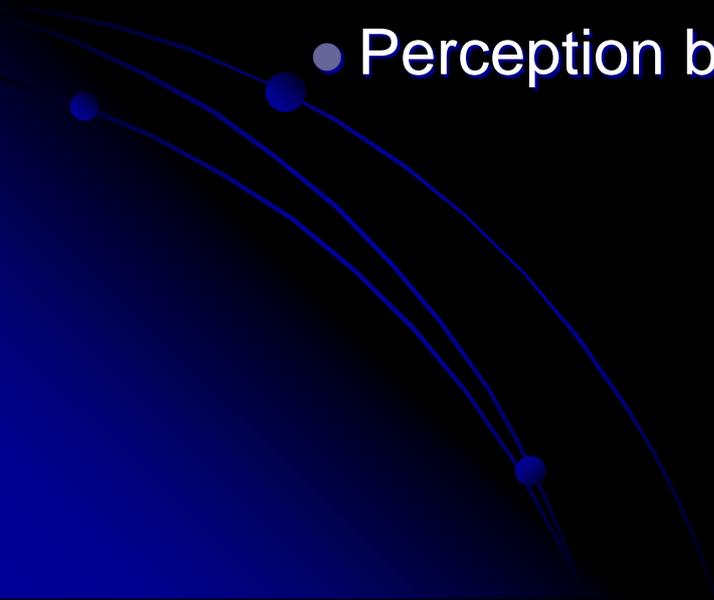
Literature

- Surveys given to 208 providers
 - 50% responded for a patient aged 65 or older living at home with a chronic disease
 - 43.8% responded once or more per month for a terminally ill or dying patient
 - 35.4% respond to a nursing home at least once a month for a dying patient
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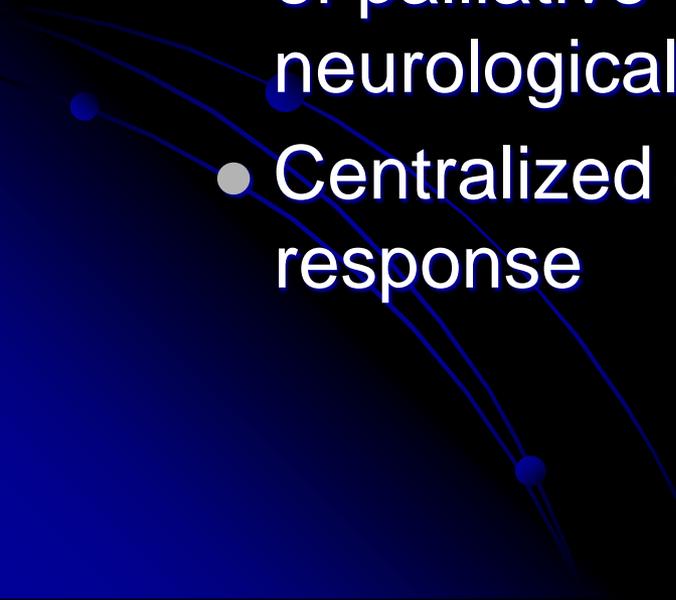
Literature

- Surveys given to 208 providers
 - DNR orders were seen at least once per month in all cases
 - 57.9% of providers said they rarely or never saw a MOLST
 - Hospice was encountered once or twice a month in 31.5% of those surveyed
 - Family conflict about a patient's wishes occurred 46.4% of the time

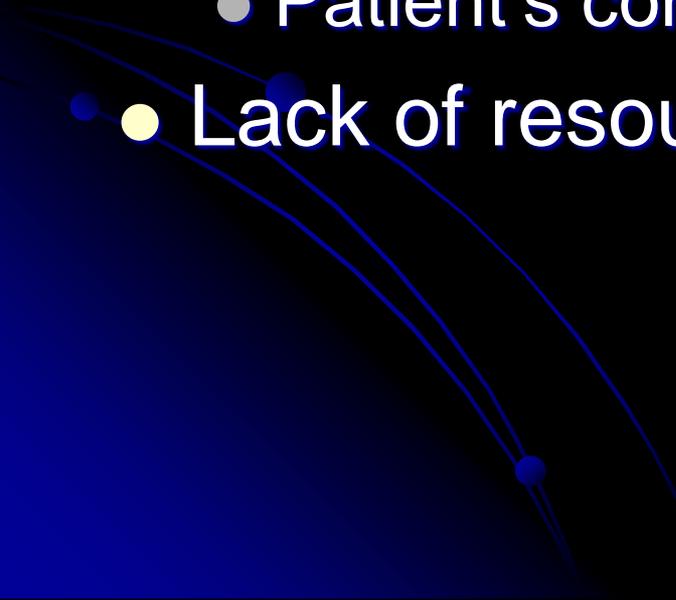
Literature

- Limitations
 - Small sample size
 - 178 surveys out of 241,600 providers
 - MOLST and POLST are not standard practice
 - Recall bias
 - Perception bias
- 

Literature

- Carron et al. assessed cases of palliative care by a prehospital emergency physician
 - 1,586 patients managed during study period
 - Case series included four consecutive cases of palliative care for respiratory or neurological symptoms
 - Centralized dispatch coordinates two-tiered response
- 

Literature

- Case occurrence:
 - Mainly at night
 - During holidays
 - Time when primary care physician was absent
 - Patient's condition deteriorated
 - Lack of resources can be challenging
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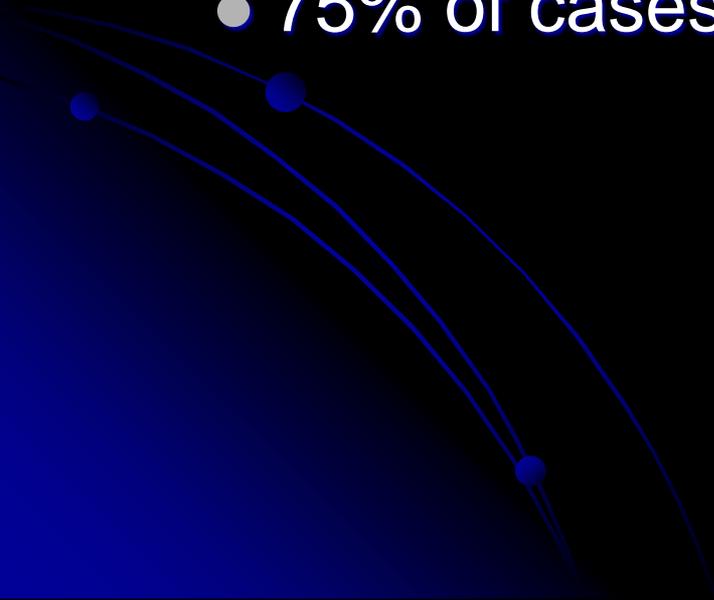
Literature

- 61 year old with metastatic pancreatic cancer in severe respiratory distress
 - Family demanded transport
 - Patient died after 90 minutes in the ED
- 48 year old with metastatic lung cancer in severe respiratory distress
 - Patient could not be managed at home, so transfer to ED ensued
 - Patient died the following night

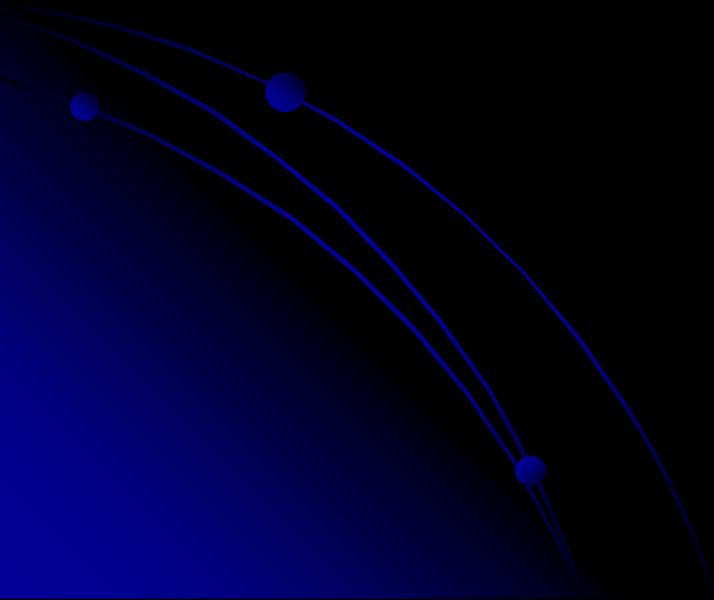
Literature

- 92 year old with metastatic lung cancer having chest pain and shortness of breath
 - Physician increased oxygen and analgesia
 - Patient stayed at home, where he died two days later
- 54 year old with metastatic breast cancer in respiratory distress
 - Refused transport
 - Required transport the following day
 - Died in the hospital three weeks later

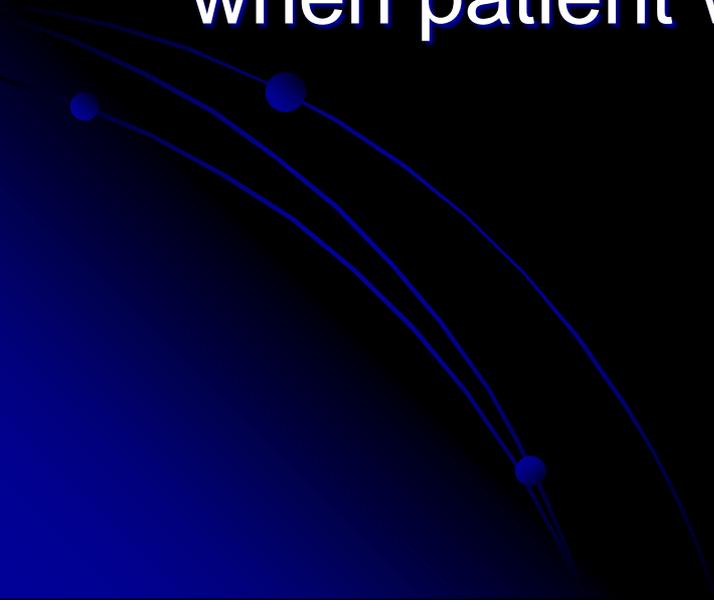
Literature

- Demonstrates palliative care and EMS can complement each other
 - More educational efforts with patients and families could reduce transport to EDs
 - 75% of cases resulted in transport
- 

Literature

- Limitations
 - Case series occurred in Switzerland
 - Physician-based EMS system
 - Significant training for prehospital providers in the U.S. would be required
- 

Literature

- Feder et al. hypothesized that with specific guidelines, difficulties in making decisions about resuscitation would be limited
 - Also analyzed why families activated 911 when patient was known to be on hospice
- 

Literature

- With specific guidelines, 46 providers found the decision easy, 4 found it moderate, and none found it difficult to withhold resuscitation
- 32 providers said prior to guidelines, they would have initiated resuscitation in these same patients
 - With verbal orders only, 41 would have resuscitated

Literature

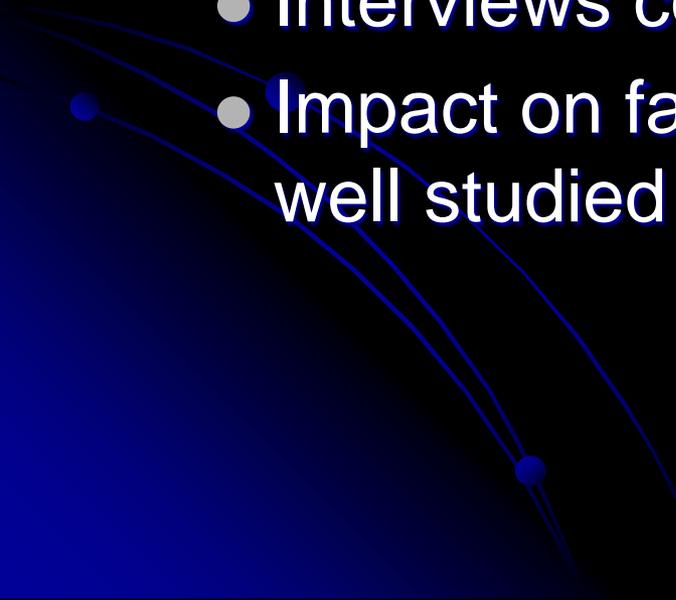
- Families responded in 41 cases
 - 23 residences
 - 26% reported not knowing what else to do
 - 22% wanted confirmation of death
 - 48% requested medical assistance
 - 6 nursing homes
 - 100% had not determined patient's code status
 - 12 adult living facilities
 - Mix of above reasons
 - 3 people thought it was required by law

Literature

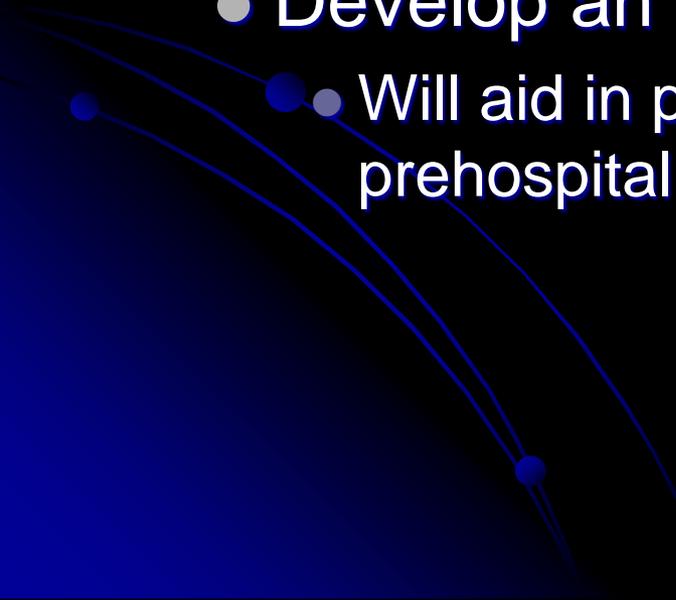
- Limitations

- Guidelines cannot be generalized
- Self-selecting leads to clustering factors
- Not all providers interviewed
- Interviews conducted by authors

- Impact on family members and caregivers not well studied



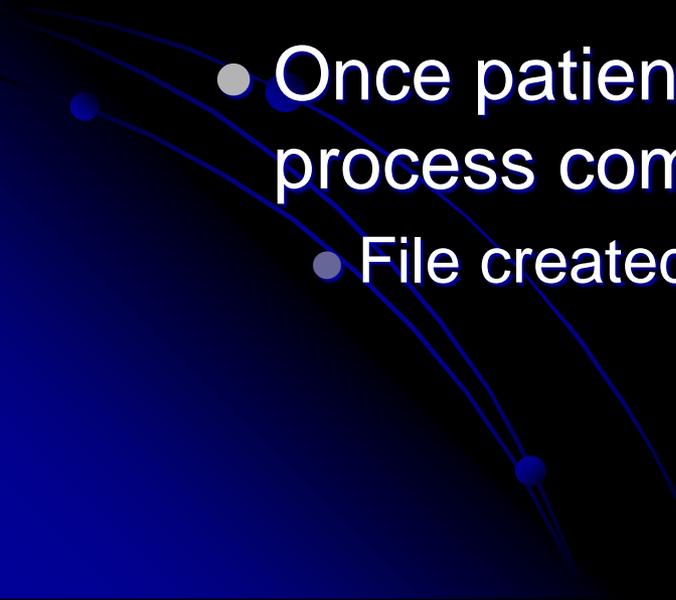
Literature

- Lambda et al. recommended
 - Perform a needs assessment
 - Take an inventory of available resources
 - Anticipate barriers
 - Develop an initial action plan
 - Will aid in planning and integration into the prehospital setting
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Operational Plan

- Community paramedic will engage the patient and his or her family to promote the greatest comfort possible
 - Partnership provides unique services to the patient and their families during their greatest time of need
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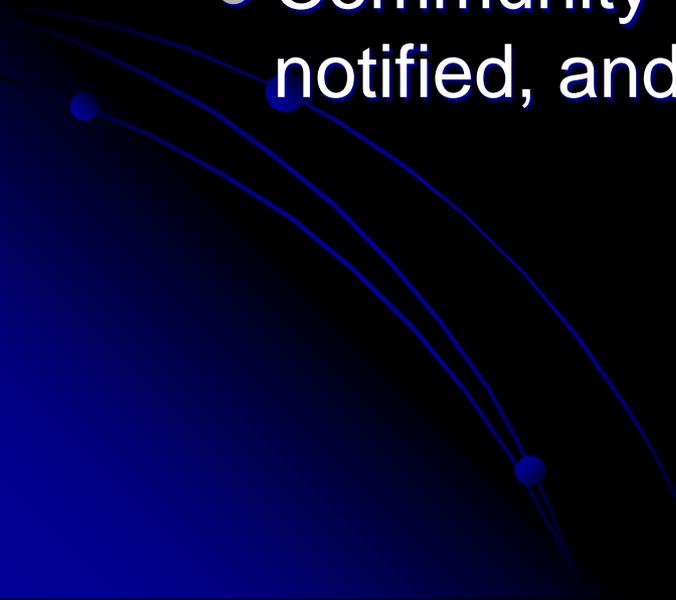
Operational Plan

- Hospice agency
 - Screen patients at-risk for discharge
 - Implement risk assessment
 - Community paramedic contacted for individual introduction and assessment
 - Once patient and family agrees, referral process completed
 - File created in CAD
- 

Operational Plan

- Enrollment procedure
 - Contact hospice nurse to schedule initial visit
 - Communication center notified
 - Authorization form will be obtained
 - Education provided for non-emergent contacts when concerns arise
 - No regular visits, but constant access
 - Identified in CAD in event patient or family calls 911

Operational Plan

- Communication Center responsibilities
 - Dispatch will notify responding crew that 911 was activated by at-risk hospice patient
 - Responding crew will notify hospice triage line
 - Community hospice paramedic will be notified, and if on duty, will also respond
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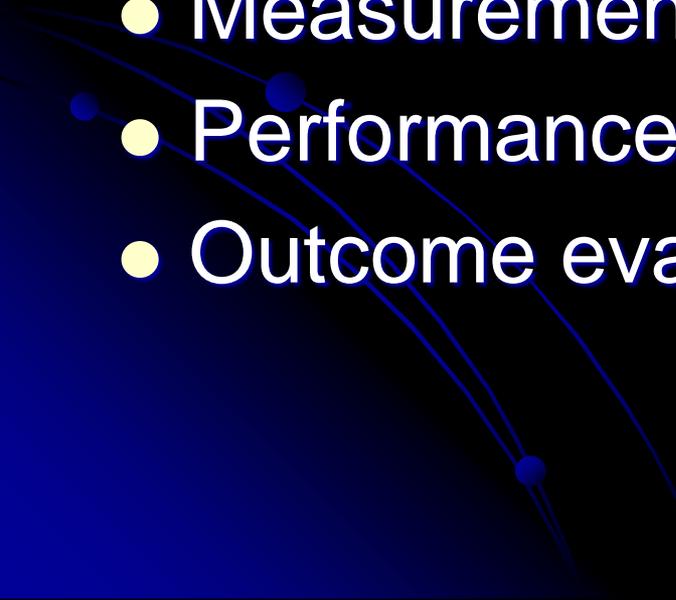
Operational Plan

- Community paramedic responsibilities
 - Requests for a home visit can be made at any time
 - Ensure patient's comfort and may utilize comfort pack as needed
 - Remains with patient until hospice nurse arrives
 - Communication center will be notified if the patient is transported

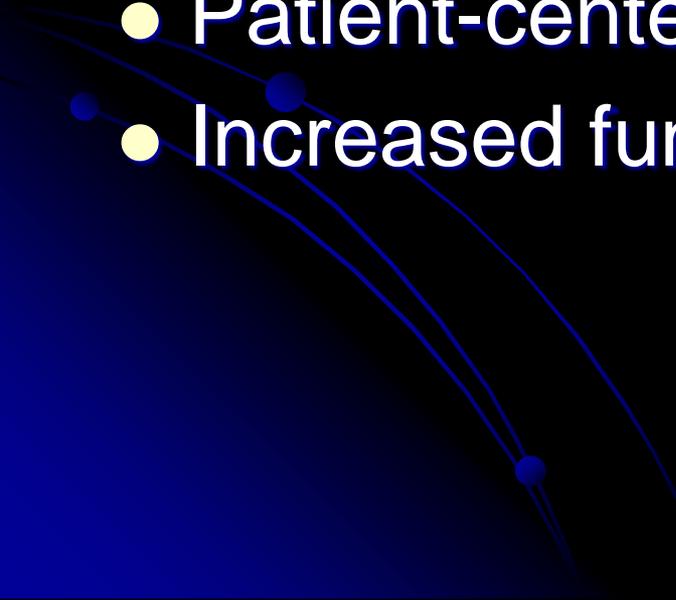
Operational Plan

- Documentation
 - Home Visit
 - Initial visit—create EPCR and update secure drop box
 - Scene response
 - For 911 or non-emergent request, an EPCR will be created
 - Full clinical evaluation will be performed
 - Appropriate signatures obtained

Operational Plan

- Surveys distributed to:
 - Patient's family
 - Hospice nurse
 - Responding EMS personnel
 - Measurement of data
 - Performance improvement
 - Outcome evaluation
- 

The Future

- Community paramedicine is expanding beyond the high utilizer
 - Initiatives to provide treatment outside of emergency departments
 - Patient-centered, innovative approaches
 - Increased funding for research needed
- 

The Future

- Important to develop metrics for both urban and rural EMS systems
- Measure of accessibility and equity
 - Availability
 - Utilization rates
 - Demand for services
- Acceptability
 - Satisfaction scores
 - Complaints

The Future

- Efficiency
 - Affordability
 - Cost effectiveness
 - Reduction in transport and hospitalization is the driving measure for success
- 

The Future

- Program expansion
 - Initial partner lacks engagement
 - Partner with other departments within the Milwaukee County EMS System
 - Partner with other regional hospice care programs
- 

Conclusion

- Community paramedics offer a unique opportunity to reduce hospice discharges
- Promotes collaboration amongst all aspects of public and organized healthcare entities
- Little evidence exists
- Fostering innovation to protect and improve patient health

Conclusion

- Measures must be valid, reliable, and responsive to change
- Program must be patient-centered, adaptable, and consistent
- Evaluation must ensure continued appropriateness and usefulness
- Program modifications must be made to benefit the community and obtain meaningful data