ADOPTION OF PRIMARY PALLIATIVE CARE FOR EMERGENCY MEDICINE (PRIM-ER) : A MIXED-METHODS STUDY USING RE-AIM

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Emergency Care

- Window to population health
- Research agenda to end disparities and address the needs of society’s most vulnerable
Background

- Increasing ED visits by older adults with serious illness
- Most prefer to receive care at home and to minimize life-sustaining procedures
- Palliative care improves quality of life and decrease health care use
Overall Primary Palliative Care for Emergency Medicine (PRIM-ER) Study Design¹

• Pragmatic, cluster-randomized stepped wedge design to test the effectiveness of primary palliative care education, training, and technical support in 35 EDs

• Measure the effect using Medicare claims data on:
  – ED disposition to an acute care setting
  – Healthcare utilization 6 months following the index ED visit
  – Survival following the index ED visit
Cluster Randomized, Stepped Wedge Trial @ 35 EDs
PRIM-ER Intervention Components

1. Evidence-based, multidisciplinary primary palliative care education
   a. Education in Palliative and End-of-life Care (EPEC-EM)
   b. End-of-Life Nursing Education Consortium (ELNEC)

2. Simulation-based workshops on communication in serious illness (EM Talk);

3. Clinical decision support (CDS); and

4. Provider audit and feedback.
PILOT COMPLETED:
HOW DID THEY DO IT?
Analysis using RE-AIM Theory

R- Reach
E- Effectiveness
A- Adoption
I- Implementation
M- Maintenance
Filling a gap in RE-AIM

- Few studies use qualitative research to explain “how” and “why” results happened\(^2,^3\)

- Lack of reporting on adoption data\(^2,^4,^5,^6\)

- Need for greater understanding of the contextual factors that influence staff and setting adoption of interventions such as organizational climate\(^4\)
Mixed methods approach

• Quantitative data
  – Intervention completion (targets/outcomes)
  – Provider Attitudes and Knowledge Survey at baseline

• Qualitative data
  – 6 interviews representing stakeholders from each site
  – Deductive and inductive coding to identify themes
  – Atlas.ti for data management
RESULTS
### Site characteristics

<table>
<thead>
<tr>
<th>Location</th>
<th>Inpatient Beds</th>
<th>Admissions</th>
<th>ED Visits</th>
<th>Full-time Emergency Providers</th>
<th>Full-time Emergency Nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site 1</strong> New York-Northern New Jersey Metropolitan Statistical area</td>
<td>531</td>
<td>14,017</td>
<td>84,880</td>
<td>28</td>
<td>89</td>
</tr>
<tr>
<td><strong>Site 2</strong> New York-Northern New Jersey Metropolitan Statistical area</td>
<td>1099</td>
<td>14,531</td>
<td>80,045</td>
<td>59</td>
<td>108</td>
</tr>
</tbody>
</table>
### Quantitative results: Education adoption

<table>
<thead>
<tr>
<th>Intervention Adoption</th>
<th>EM Talk No. Providers Trained (%)</th>
<th>ELNEC No. Nurses Trained(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site 1</strong></td>
<td>22 (79%)</td>
<td>70 (79%)</td>
</tr>
<tr>
<td><strong>Site 2</strong></td>
<td>54 (92%)</td>
<td>91 (84%)</td>
</tr>
</tbody>
</table>
Qualitative results

1. Institutional leadership support
2. Established quality improvement (QI) processes
Institutional leadership support

“If you don’t have leadership support, forget about it.”
(Site 1 Physician Champion)
Institutional leadership support

a) Mandate attendance for educational components
b) Substitute for faculty development
c) Provide protected time for CDS development
Institutional leadership support

Ex: Mandatory attendance for EM Talk

“My chairman was like, “If you are off, you are coming. This isn’t an ‘Oh, maybe, yay’ activity. This is: We have a grant. You’re coming.”” (Site 1 Principal Investigator)
Qualitative results

1. Institutional leadership support

2. Established quality improvement (QI) processes
Established QI processes

a) Cross-disciplinary communication
b) Data auditing/performance feedback
Established QI processes

Ex: Data auditing/performance feedback

“We really track our issues on a white board right outside the ED […] It's very front and center. We give a lot of personalized feedback to our attendings.” (Site 2 Principal Investigator)
D&I IMPLICATIONS
35 EDs, 18 Health Systems

Clinical Sites
- Allegheny Singer Research Institute
- Baystate Medical Center
- William Beaumont Hospital
- Brigham and Women's Hospital
- Christiana Care Health Service, Inc.
- Henry Ford Health System
- Alpert School of Medicine at Mount Sinai
- Mayo Clinic
- NYU School of Medicine
- Massachusetts General Hospital
- Beth Israel Deaconess Medical Center
- New York University School of Medicine
- NYU Langone Health
- Thomas Jefferson University Hospital
- University of California, San Francisco
- University of Florida College of Medicine
- Trustees of the University of Pennsylvania
- University of Texas MD Anderson Cancer Center
- University of Utah
- Yale University
Conclusions

1. Mandate training sessions
2. Schedule PRIM-ER education into dedicated faculty development time
3. Provide protected time for PRIM-ER trainings and CDS development
4. Build on existing QI processes to enhance cross-disciplinary communication and CDS integration
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References


3. Holtrop JS, Rabin BA, Glasgow RE. Qualitative approaches to use of the RE-AIM framework: rationale and methods. BMC Heal Serv Res. 2018;18:177.


THANK YOU!

Questions?
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