

I-TRANSFER



Improving Transitions and Outcomes for Sepsis Survivors

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Study Team

- Principal Investigator: Kathy Bowles, PhD, RN
- Co-Investigators-implementation team
 - Nancy Hodgson RN, PhD-- implementation science
 - Mark Mikkelsen, MD, MSE-- critical care physician/sepsis
 - Melissa O'Connor, RN, PhD --home health care
 - Karen Hirschman MSW, PhD—qualitative analysis
 - Misho Stawnychy, MPI --patient caregiver supplement
- Co-Investigators-analytic team
 - Miriam Ryvicker, PhD—Medicare Claims analyses
 - Partha Deb, PhD—analytics
 - Yolanda Barron—Statistician, home health care datasets
- Trainees and support staff
 - Sang Bin You, Elaine Sang, Katherine Pitcher
 - Stanley Moore-data analyst Medicare files



Sepsis and Readmission Risks

- Survivors face post-sepsis syndrome, reinfection, and chronic condition exacerbation
- 1/3 of sepsis survivors are transitioned to home health care
- 32% of 30-day readmissions from home health care occur within the first week post-discharge



I-TRANSFER Protocol

- Protocol includes HHC start of care nursing visit within 2 days, another nursing visit, and outpatient provider visit within 1 week of hospital discharge
- Resulted in 7% lower readmission rate (41% relative reduction)
- However, only 28% of survivors nationwide received this care pattern

I-TRANSFER



COMPONENTS OF I-TRANSFER (Improving Transitions and Outcomes of Sepsis Survivors)

ACUTE CARE

- Identify the sepsis survivor in acute care
- Refer sepsis survivor to home health care
- Notify HHC that it is a sepsis survivor
- Make the outpatient follow-up appointment
- Educate the patient and caregiver

HOME CARE

- Complete start of care visit within 48 hrs. of hospital discharge
- Document sepsis on the OASIS diagnosis list
- Nursing visit at least once more that first week
- Encourage and assist patient to attend outpatient visit

Study Design and Setting



Qualitative, descriptive design using CFIR framework



Conducted across 5 healthcare systems and 5 HHC agencies in 4 states



Used thematic analysis and strategy mapping to ERIC taxonomy

Participants

91 informants in 61
interviews
(36 individual, 25
group)

57 from acute care,
34 from HHC or
outpatient

Roles: administrators,
coordinators, physicians, nurses,
quality managers, coders,
clinicians, sepsis coordinators

Key Findings



32 themes identified



Barriers: care coordination, staffing, EHR, information transfer, access to care



Facilitators: EHR, staffing, care coordination, policies, quality monitoring

Barrier: Care Coordination



SEPSIS NOT CLEARLY
DOCUMENTED IN
MEDICAL RECORD



SEPSIS DIAGNOSIS OFTEN
MISSING, RESOLVED, OR IN
MEDICAL HISTORY



MULTI-MORBIDITY
COMPLICATES CARE
FOCUS

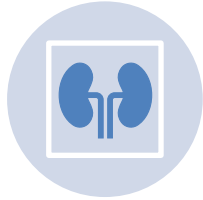


VARIATION IN SEPSIS
DEFINITIONS (SIRS, SOFA,
SEP-1, SEPSIS-3)

Facilitator or strategy to address barrier

- Clearly define sepsis for the health system (use Sep 3) and create reports
- Apply the ICD-10 Z.51.A Encounter for Sepsis Aftercare code to the record
- Care coordination improved when discharging providers signed HHC orders and HHC liaisons were present

Barrier Theme: EHR and Documentation



FAILURE TO USE 'SEPSIS'
IN DOCUMENTATION
(DISCHARGE SUMMARY
AND REFERRALS)



INCONSISTENT USE OF
PROBLEM LIST IN EHR

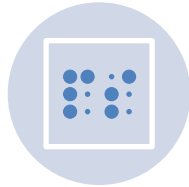


PROBLEM LIST
INCONSISTENCIES AFFECT
PROTOCOL TRIGGERING

Facilitator or strategy to address barrier

- Create EHR banners or flags to identify sepsis survivors
- EHR tools supported sepsis identification and education: prediction models, decision trees, and third-party software.
- Clinical Documentation Improvement (CDI) teams monitored EHRs and prompted sepsis documentation and education.

Barrier Theme: Information Transfer



Non-integrated EHRs
hinder
communication



Too much or too little
information shared



Difficulty locating
sepsis diagnosis in
records



Lack of standardized
communication
methods

Facilitator or strategy to address barrier

- Integrated EHR systems and referral software facilitated information transfer across care settings.
- Use the new ICD-10 code, Z51.A Encounter for Sepsis Aftercare on discharge documents and in post-acute care
- Standardize the discharge and referral documents
- Create a flag in the discharge process or referral software

Barrier Theme: Access to Care



No staff assigned to schedule follow-up



Geographic and social determinants affect access



Appointments made without patient input



Limited appointment availability and conflicting discharge info

Barrier Theme: Access to Care

- Facilitators included sepsis coordinators, unit clerks, and increased weekend HHC staffing.
- Augmented services (e.g., paramedic visits, Hospital at Home) supported outpatient follow-up.
- Access to care was enhanced by outpatient coordinators, bundled payment incentives, Medicare coverage, and telemedicine.

Barrier Theme:

Patient Behavior and Preferences



Patients decline or delay HHC



Missed outpatient appointments



Transportation issues and co-pay avoidance

Facilitator and strategy to address barrier

- Involve patients and caregivers when making appointments
- Assess for transportation issues
- Educate patients to improve adherence and understanding of post-discharge care



Conclusions and Implications

- Actionable insights for leaders, clinicians, and policymakers
 - Importance of sepsis identification and coding
 - Need for tools to support scheduling, quality measurement, and EHR integration
 - Patient education is critical for informed follow-up decisions
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