



Effective Health Care

Transitions of Care

Results of Topic Selection Process & Next Steps

The nominator, the Society for Post-acute and Long-term Care Medicine (AMDA), is interested in a new evidence review on transitions of care to inform an update of their 2010 clinical practice guideline.

We identified seven published reviews and nine in-progress reviews covering the scope of the nomination, therefore, a new review would be duplicative of an existing product. No further activity on this nomination will be undertaken by the Effective Health Care (EHC) Program.

Topic Brief

Topic Name: Transition Care

Nomination Date: 4/24/2017

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Authors

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Conflict of Interest: None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

Summary

- This nomination meets the selection criteria of appropriateness and importance, and duplication.
- Seven systematic reviews were identified that would be duplicative of key questions in the review. While the scope of the proposed review is broad and some key questions were not addressed in existing reviews, nine additional in-progress reviews were also identified that may also answer the proposed questions.

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Background

A transition of care occurs any time a patient transfers from one provider or health care setting to another.¹ These transitions are vulnerable points in the care of patients. The 2001 Institute of Medicine (IOM) report, *Crossing the Quality Chasm*, attention was called to the “layers of processes and handoffs” in which patients and caregivers receive inadequate information.² Transitions in care are associated with medical errors,^{3,4} adverse events,⁵ increased healthcare utilization and costs⁶, and mortality⁷. Transition care interventions are designed to ensure the safe and effective coordination and continuity of care as patients transfer between providers and settings.^{6,8,9}

Nominator and Stakeholder Engagement: Topic nomination #0738 was received on April 24, 2017. It was nominated by the AMDA, the Society for Post-Acute and Long-Term Care Medicine. The initial nomination discussed the need for information on transitions between post-acute/long-term care (PA/LTC) to home, emergency department/hospital (ED/hospital) to PA/LTC, and PA/LTC to ED/hospital. In discussion with the nominator, the transition of PA/LTC to home and PA/LTC to ED transitions were also identified as a priority for assessment.

The key questions for this nomination are:

Key Question 1. What are the effects of interventions in transition care from PA/LTC to home and PA/LTC to ED on **health and social outcomes, patient and caregiver experience, and health care utilization**?

Key Question 2. What are the **components and implementation features of interventions** in transition care from PA/LTC to home and PA/LTC to ED? What **resources are needed to implement** transition care interventions?

- What barriers exist to implementing transition interventions?
- Who delivers transition care interventions and what training have personnel received?

Key Question 3. Does the effectiveness of interventions in transition care from PA/LTC to home and PA/LTC to ED **differ by components**?

- What are the components or processes of effective interventions?
- Among effective interventions, are particular components or processes necessary?
- Among multicomponent interventions, do particular components or processes add benefit?

Key Question 4. Does the effectiveness of interventions in transition care from PA/LTC to home and PA/LTC to ED **differ by implementation factors**? Does the effectiveness of interventions differ based on intensity (e.g., duration, frequency, or periodicity) of the interventions?

- Does the effectiveness of interventions differ based on delivery personnel (e.g., nurse, pharmacist)?
- Does the effectiveness of interventions differ based on method of communication (e.g., face-to-face, telephone, Internet)?

Key Question 5. Does the effectiveness of transition care interventions **differ by patient characteristics**, including but not limited to patient demographics and numbers and types of conditions?

KQ 6: Are there **harms** of transition care interventions, and if so, what are they?

To define the inclusion criteria for the key questions we specify the population, interventions, comparators, outcomes, and setting (PICOTS) of interest (Table 1).

Table 1. Key Questions and PICOTS

Key Questions	KQ 1: What are the effects of transition care interventions from PA/LTC to home and PA/LTC to ED on health and social outcomes, patient and caregiver experience, and health care utilization ?	KQ 2: What are the components and implementation features of transition care interventions from PA/LTC to home and PA/LTC to ED? What resources are needed to implement transition care interventions?	KQ 3: Does the effectiveness of transition care interventions from PA/LTC to home and PA/LTC to ED differ by intervention components ?	KQ 4: Does the effectiveness of transition care interventions from PA/LTC to home and PA/LTC to ED differ by implementation factors ?	KQ 5: Does the effectiveness of transition care interventions differ by patient characteristics , including but not limited to patient demographics and numbers and types of conditions?	KQ 5: Are there harms of transition care interventions, and if so, what are they?
Population	<ul style="list-style-type: none"> Patients at a PA/LTC facility transferred home or to ED 	<ul style="list-style-type: none"> Patients at a PA/LTC facility transferred home or ED 	<ul style="list-style-type: none"> Patients at a PA/LTC facility transferred home or to ED 	<ul style="list-style-type: none"> Patients at a PA/LTC facility transferred home or to ED 	<ul style="list-style-type: none"> Patients at a PA/LTC facility transferred home, or to ED 	<ul style="list-style-type: none"> Patients at a PA/LTC facility transferred home, or to ED
Interventions	<ul style="list-style-type: none"> Education to patient and/or caregiver discharge planning appointment scheduling increased planned or scheduled outpatient clinic home visits telemonitoring; telephone support transition coach or case management <p>interventions to increase provider continuity</p>	<ul style="list-style-type: none"> Education to patient and/or caregiver discharge planning appointment scheduling increased planned or scheduled outpatient clinic home visits telemonitoring; telephone support transition coach or case management <p>interventions to increase provider continuity</p>	<ul style="list-style-type: none"> Education to patient and/or caregiver discharge planning appointment scheduling increased planned or scheduled outpatient clinic home visits telemonitoring; telephone support transition coach or case management <p>interventions to increase provider continuity</p>	<ul style="list-style-type: none"> Education to patient and/or caregiver discharge planning appointment scheduling increased planned or scheduled outpatient clinic home visits telemonitoring; telephone support transition coach or case management <p>interventions to increase provider continuity</p>	<ul style="list-style-type: none"> Education to patient and/or caregiver discharge planning appointment scheduling increased planned or scheduled outpatient clinic home visits telemonitoring; telephone support transition coach or case management <p>interventions to increase provider continuity</p>	<ul style="list-style-type: none"> Education to patient and/or caregiver discharge planning appointment scheduling increased planned or scheduled outpatient clinic home visits telemonitoring; telephone support transition coach or case management interventions to increase provider continuity
Comparators	Usual care (i.e., routine care or standard care, as defined by the primary studies)	N/A	Usual care (i.e., routine care or standard care, as defined by the primary studies)	Usual care (i.e., routine care or standard care, as defined by the primary studies)	Usual care (i.e., routine care or standard care, as defined by the primary studies)	Usual care (i.e., routine care or standard care, as defined by the primary studies)

Outcomes	Primary: •readmission rates •mortality Secondary: ER visits, acute care visits, hospital days (of subsequent readmissions), quality of life, functional status, and caregiver or self-care burden	N/A	Primary: •readmission rates •mortality Secondary: ER visits, acute care visits, hospital days (of subsequent readmissions), quality of life, functional status, and caregiver or self-care burden	Primary: •readmission rates •mortality Secondary: ER visits, acute care visits, hospital days (of subsequent readmissions), quality of life, functional status, and caregiver or self-care burden	Primary: •readmission rates •mortality Secondary: ER visits, acute care visits, hospital days (of subsequent readmissions), quality of life, functional status, and caregiver or self-care burden	Primary: •readmission rates •mortality Secondary: ER visits, acute care visits, hospital days (of subsequent readmissions), quality of life, functional status, and caregiver or self-care burden
Timing	N/A	N/A	N/A	N/A	N/A	N/A
Setting	Inpatient, outpatient, home	Inpatient, outpatient, home	Inpatient, outpatient, home	Inpatient, outpatient, home	Inpatient, outpatient, home	Inpatient, outpatient, home

Abbreviations: PA/LTC – post-acute/long-term care; ED – emergency department

Methods

We assessed nomination #0738 *Transition Care*, for priority for a systematic review or other AHRQ EHC report with a hierarchical process using established selection criteria (Appendix A). Assessment of each criteria determined the need for evaluation of the next one.

1. Determine the *appropriateness* of the nominated topic for inclusion in the EHC program.
2. Establish the overall *importance* of a potential topic as representing a health or healthcare issue in the United States.
3. Determine the *desirability of new evidence review* by examining whether a new systematic review or other AHRQ product would be duplicative.
4. Assess the *potential impact* a new systematic review or other AHRQ product.
5. Assess whether the *current state of the evidence* allows for a systematic review or other AHRQ product (feasibility).
6. Determine the *potential value* of a new systematic review or other AHRQ product.

Appropriateness and Importance

We assessed the nomination for appropriateness and importance.

Desirability of New Review/Duplication

We searched for high-quality, completed or in-process evidence reviews published in the last five years on the key questions of the nomination. See Appendix B for sources searched.

Compilation of Findings

We constructed a table with the selection criteria and our assessments (Appendix A).

Results

Appropriateness and Importance

This is an appropriate and important topic. Transitions in care are associated with medical errors,^{3,4} adverse events,⁵ increased healthcare utilization and costs⁶, and mortality⁷. (see Appendix A).

Desirability of New Review/Duplication

A new evidence review examining PA/LTC to home transitions or ED/hospital would be duplicative of pre-existing systematic reviews. A search of the recent literature identified seven systematic reviews examining the transition from PA/LTC to ED/hospital or PA/LTC to home. Further potential for duplication exists with in-progress reviews. One Cochrane in-progress review was identified.¹⁰ An additional eight systematic reviews were identified in PROSPERO.¹¹⁻¹⁸

- KQ 1: Three reviews were identified that provided findings on the outcomes of transition interventions.¹⁹⁻²¹
 - A 2016 systematic review examined the effect of provider-to-provider communication in transitions from primary care provider, outpatient specialist, outpatient pharmacist,

- nursing home provider to emergency department.¹⁹ Communication in studies examining readmission outcomes included direct communication and participation in a medication liaison service intervention.
- A 2015 systematic review examined the effect of ED and rehabilitation transfers to home among stroke patients on emergency department visits and readmissions.²⁰
 - A 2016 systematic review examined the transition from skilled nursing homes to home.²¹ Outcomes included acute care use, mortality, satisfaction with care, physical function, and participation in clinical services.
 - KQ 2: Five systematic reviews and two scoping reviews were identified that described transition care intervention components, as well as information on resources, barriers, and delivery of the interventions.²⁰⁻²⁴
 - A 2015 systematic review and meta-synthesis examined qualitative research to assess transfers from nursing homes to EDs.²⁴ The review provided an overview of barriers to implementation of services and interventions.
 - A 2015 systematic review examined ED and rehabilitation transfers to home among stroke patients in which descriptions of the various components of interventions were provided.²⁰
 - A 2016 systematic review examined the transition from skilled nursing homes to home.²¹ Intervention characteristics and resources needed for implementation were reviewed.
 - Two scoping reviews were identified that outlined components and implementation factors of transition care.^{22,23}
 - KQ 3: No reviews were identified that provided findings on the outcomes of transition interventions by component and/or by multicomponent to single component implementation.
 - KQ 4: We identified one review that provided findings on outcomes of transition interventions by implementation factors.¹⁹
 - A 2016 systematic review examined the effect of provider-to-provider communication in transitions from primary care provider, outpatient specialist, outpatient pharmacist, nursing home provider to emergency department.¹⁹ The study examined frequency of communication, types of providers involved in communication, mode of communication, and directionality of communication.
 - KQ 5: No reviews were identified that provided findings on the outcomes of transition interventions by patient characteristics.
 - KQ 6: No reviews were identified that provided findings on the potential harms of transition interventions.

Additional reviews were identified that may address the key questions, but the publications lacked sufficient information to determine the direction of care transition or included studies with multiple directions of care transitions without reporting findings separately.^{6,25-35}

Additional in-process reviews were identified, including one Cochrane review¹⁰ and eight reviews registered on PROSPERO.¹¹⁻¹⁸ These reviews examine medication reconciliation, emergency department visit reduction programs, pharmacy-supported and community pharmacist interventions, along with care transition interventions generally. Various settings are included in the reviews. Some ongoing reviews aim to look at care transitions across various

settings, and may therefore not provide direct evidence to answer the proposed key questions. Other reviews indicate settings of interest, including residential care facilities and the transfer from outpatient to inpatient settings.

The identified evidence reviews commonly cited a paucity of evidence comparing transition care interventions. Furthermore, due to a lack of available evidence and the implementation of bundles of intervention components, comparisons between interventions were not frequently feasible.

See Table 2, Duplication column.

Table 2. Key questions and Results for Duplication

Key Question	Duplication (04/2013-04/2018)
KQ 1	Total number of identified systematic reviews: 3 <ul style="list-style-type: none"> Other: ¹⁹⁻²¹
KQ 2	Total number of identified systematic reviews: 5 <ul style="list-style-type: none"> Other: ²⁰⁻²⁴
KQ 3	Total number of identified systematic reviews: 0
KQ 4	Total number of identified systematic reviews: 1 <ul style="list-style-type: none"> Other: ¹⁹
KQ 5	Total number of identified systematic reviews: 0
KQ 6	Total number of identified systematic reviews: 0

Abbreviations: KQ=Key Question

Summary of Findings

- Appropriateness and importance: The topic is both appropriate and important.
- Duplication: A new review would be duplicative of an existing product. A search of the recent literature identified seven systematic reviews examining the transition from PA/LTC to ED/hospital or PA/LTC to home. Further potential for duplication exists with in-progress reviews. One Cochrane in-progress review was identified.¹⁰ An additional eight systematic reviews were identified in PROSPERO.¹¹⁻¹⁸

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Appendix A. Selection Criteria Summary

Selection Criteria	Assessment
1. Appropriateness	
1a. Does the nomination represent a health care drug, intervention, device, technology, or health care system/setting available (or soon to be available) in the U.S.?	Yes
1b. Is the nomination a request for a systematic review?	Yes
1c. Is the focus on effectiveness or comparative effectiveness?	Yes
1d. Is the nomination focus supported by a logic model or biologic plausibility? Is it consistent or coherent with what is known about the topic?	Yes
2. Importance	
2a. Represents a significant disease burden; large proportion of the population	Yes, transitions in care are associated with medical errors, ^{3,4} adverse events, ⁵ increased healthcare utilization and costs ⁶ , and mortality ⁷ .
2b. Is of high public interest; affects health care decision making, outcomes, or costs for a large proportion of the US population or for a vulnerable population	Yes
2c. Represents important uncertainty for decision makers	Yes
2d. Incorporates issues around both clinical benefits and potential clinical harms	Yes
2e. Represents high costs due to common use, high unit costs, or high associated costs to consumers, to patients, to health care systems, or to payers	Yes
3. Desirability of a New Evidence Review/Duplication	
3. Would not be redundant (i.e., the proposed topic is not already covered by available or soon-to-be available high-quality systematic review by AHRQ or others)	Seven existing reviews were that address KQs 1, 2, and 4. Existing reviews were not identified for Key Questions 3, 5, and 6, however nine ongoing systematic reviews were identified that may result in duplication.

Abbreviations: AHRQ=Agency for Healthcare Research and Quality; KQ=Key Question

Appendix B. Search for Evidence Reviews (Duplication)

Listed are the sources searched.

Search date: April 2013 to April 2018
AHRQ: Evidence reports and technology assessments, USPSTF recommendations
VA Products: PBM, and HSR&D (ESP) publications, and VA/DoD EBCPG Program
Cochrane Systematic Reviews and Protocols http://www.cochranelibrary.com/
PubMed
PubMed Health http://www.ncbi.nlm.nih.gov/pubmedhealth/
HTA (CRD database): Health Technology Assessments http://www.crd.york.ac.uk/crdweb/
PROSPERO Database (international prospective register of systematic reviews and protocols) http://www.crd.york.ac.uk/prospero/
CADTH (Canadian Agency for Drugs and Technologies in Health) https://www.cadth.ca/
DoPHER (Database of promoting health effectiveness reviews) http://eppi.ioe.ac.uk/webdatabases4/Intro.aspx?ID=9
ECRI institute https://www.ecri.org/Pages/default.aspx
Secondary Sources checked on an as needed basis
Campbell Collaboration http://www.campbellcollaboration.org/
McMaster Health System Evidence https://www.healthsystemsevidence.org/
Robert Wood Johnson http://www.rwjf.org/
Systematic Reviews (Journal) : protocols and reviews http://systematicreviewsjournal.biomedcentral.com/