

SUPPORTING STATEMENT

Part A

Pilot Test of an Emergency Department (ED) Discharge Tool

Version: January 6, 2014

Agency of Healthcare Research and Quality (AHRQ)

Table of contents

A. Justification.....	3
1. Circumstances that make the collection of information necessary.....	3
2. Purpose and use of information.....	6
3. Use of Improved Information Technology.....	7
4. Efforts to Identify Duplication.....	7
5. Involvement of Small Entities.....	8
6. Consequences if Information Collected Less Frequently.....	8
7. Special Circumstances.....	8
8. Consultation outside the Agency.....	8
9. Payments/Gifts to Respondents.....	9
10. Assurance of Confidentiality.....	9
11. Questions of a Sensitive Nature.....	10
12. Estimates of Annualized Burden Hours and Costs.....	10
13. Estimates of Annualized Respondent Capital and Maintenance Costs.....	12
14. Estimates of Annualized Cost to the Government.....	12
15. Changes in Hour Burden.....	12
16. Time Schedule, Publication and Analysis Plans.....	12
17. Exemption for Display of Expiration Date.....	17
List of Attachments	17

A. Justification

1. Circumstances that make the collection of information necessary

The mission of the Agency for Healthcare Research and Quality (AHRQ) set out in its authorizing legislation, The Healthcare Research and Quality Act of 1999 (see <http://www.ahrq.gov/hrqa99.pdf>), is to enhance the quality, appropriateness, and effectiveness of health services, and access to such services, through the establishment of a broad base of scientific research and through the promotion of improvements in clinical and health systems practices, including the prevention of diseases and other health conditions. AHRQ shall promote health care quality improvement by conducting and supporting:

1. research that develops and presents scientific evidence regarding all aspects of health care; and
2. the synthesis and dissemination of available scientific evidence for use by patients, consumers, practitioners, providers, purchasers, policy makers, and educators; and
3. initiatives to advance private and public efforts to improve health care quality.

Also, AHRQ shall conduct and support research and evaluations, and support demonstration projects, with respect to: (A) the delivery of health care in inner-city areas, and in rural areas (including frontier areas); and (B) health care for priority populations, which shall include (1) low-income groups, (2) minority groups, (3) women, (4) children, (5) the elderly, and (6) individuals with special health care needs, including individuals with disabilities and individuals who need chronic care or end-of-life health care.

The research study “Pilot Test of an Emergency Discharge Tool” fully supports AHRQ’s mission. The ultimate aim of this study is to pilot test a discharge tool which has the potential to reduce unnecessary visits to the Emergency Department (ED), reduce healthcare expenditure in the ED, as well as streamline and enhance the quality of care delivered to ED patients.

The ED is an important and frequently used setting of care for a large part of the U.S. population. In 2006, there were nearly 120 million ED visits in the U.S., of which only 15.5 million (14.7%) resulted in admission to the hospital or transfer to another hospital. Thus the majority ED visits result in discharge to home. Patients discharged from the ED face significant risk for adverse outcomes, with between 3-5 patients per 100,000 visits experiencing an unexpected death following discharge from the ED. Additionally, a sizable minority of patients return to the ED frequently. Published studies estimate that 4.5% to 8% of patients revisit the ED 4 or more times

per year, accounting for 21% to 28% of all ED visits¹²³⁴⁵. Data from John Hopkins Hospital, AHRQ's contractor for this pilot test, supports these findings with 7% of their patients accounting for 26% of visits to the Johns Hopkins Hospital ED in 2011.

Patients who revisit the ED contribute to overcrowding, unnecessary delays in care, dissatisfaction, and avoidable patient harm. ED revisits are also an important contributor to rising health care costs, as ED care is estimated to cost two to five times as much as the same treatment delivered by a primary care physician. Thus it is estimated that eliminating revisits and inappropriate use of EDs could reduce health care spending as much as \$32 billion each year. Overall, an effective and efficient ED discharge process would improve the quality of patient care in the ED as well as reduce healthcare costs.

To respond to the challenges faced by our nation's EDs and the patients they serve, AHRQ will develop and pilot test a tool to improve the ED discharge process. More specifically, this project has the following goals:

- 1) Develop and Pilot Test a Prototype ED Discharge Tool in a limited number of settings to assess:
 - a) the feasibility for use with patients;
 - b) the methodological and resource requirements associated with tool use;
 - c) the feasibility of measuring outcomes;
 - d) the costs of implementation and;
 - e) preliminary outcomes or impacts of tool use.
- 2) Revise the Tool based on the results from the Pilot Test.

To achieve these goals the following data collections will be implemented:

- 1) **Pilot Test of the Emergency Department Discharge Tool (EDT)** -- The EDT will be pilot tested in the three John Hopkins EDs in Baltimore. The purpose of the EDT is to assist hospitals in identifying patients who excessively use the ED and can be categorized as "frequent ED users," as well as to target interventions to these patients to reduce the risk of further avoidable revisits. A research assistant will screen the medical record of all adult patients for the presence of frequent ED use, the key risk factor for ED discharge failure. Frequent ED use is defined as: 1) 1 or more previous ED visit within the last 72-hours, or 2) 3 or more previous ED visits within the last 3 months, or 3) 4 or more ED visits within the

Blank FS, Li H, Henneman PL, et al. A descriptive study of heavy emergency department users at an academic emergency department reveals heavy ED users have better access to care than average users. *J Emerg Nurs*. Apr .2005;31(2):139-144

Cook LJ, Knight S, Junkins EP, Jr., Mann NC, Dean JM, Olson LM. Repeat patients to the emergency department in a statewide database. *Acad Emerg Med*. Mar 2004;11(3):256-263

Fuda KK, Immekus R. Frequent users of Massachusetts emergency departments: a statewide analysis. *Annals of emergency medicine*. Jul 2006;48(1):9-16

Riggs JE, Davis SM, Hobbs GR, Paulson DJ, Chinnis AS, Heilman PL. Association between early returns and frequent ED visits at a rural academic medical center. *Am J Emerg Med*. Jan 2003;21(1):30-31

Hunt KA, Weber EJ, Showstack JA, Colby DC, Callahan ML. Characteristics of frequent users of emergency departments. *Annals of emergency medicine*. Jul 2006;48(1):1-8

last 12 months. This definition can be modified to align with the resources of the individual ED.

This tool uses data collected from the record of patients that are flagged as frequent ED users. By asking patients a series of questions about their medical history, the tool also helps to identify individuals with risk factors that have been shown in the literature to predict sub-optimal ED discharges and resulting revisits. These risk factors include being uninsured, lack of a primary care physician, having psychiatric diseases, abusing substances, difficulty caring for oneself, or having trouble comprehending ED discharge instructions (see Attachment A).

A User's Guide (EDT User's Guide) is also provided to assist EDs in developing resources to provide interventions recommended by the EDT (see Attachment B). No data collection activities will occur from this manual.

- 2) **One Month Patient Follow-up Telephone Interview** – After the ED visit, a project research assistant (RA) will have a follow-up telephone interview with all enrolled patients. During the interview, the RA will inquire about the success of the interventions that were given for the patient (see Attachment C).
- 3) **Three Month Patient Follow-up Telephone Interview** – Patients who are uninsured will receive an additional phone call 3 months after the ED visit to assess whether or not they were able to acquire insurance (see Attachment D).
- 4) **Implementer Focus Groups** -- AHRQ will conduct four sets of focus groups to collect qualitative data about the usability and usefulness of the EDT from four stakeholder groups: three groups of EDT implementers and one group of research assistants. Questions for each of the focus groups will vary based on their differing objectives:
 - a) **EDT Implementers Focus Group (non-RA)** (See Attachment E) – For *non-RA* implementers of the EDT (RNs, case managers, social workers,), the objectives will include exploring: 1) how well it does or does not meet implementer goals of discharge; 2) experiences with rollout and implementation, including resources required for implementation; 3) impressions of the value, strengths and weaknesses of the EDT; and 4) unintended consequences or impacts on other ED operations. The focus groups will consist of 8 implementers. Three focus groups will be conducted, one for each pilot site.
 - b) **Research Assistant Focus Group** (See Attachment F) – The three research assistants who will be implementing the EDT will participate in one focus group in which they discuss: 1) experiences with implementation (including comparisons in their experiences across the three test sites; 2) possible areas for improvement 3) unintended consequences or impacts on other ED operations.
- 5) **Key Informant Interviews** -- AHRQ will conduct semi-structured interviews with no more than twenty-four individuals that can be classified as either ED Directors, patients, or

community care providers. These individuals will provide feedback on issues surfaced during the focus groups. This will provide an opportunity to delve more deeply into specific topics of interest. The interview guides are included as Attachment G for patients, Attachment H for community care providers, and Attachment I for ED Directors.

- a) **Patient Interviews** (see Attachment G) – For the *patients*, the objective will be to explore: 1) the barriers they face in obtaining health care; 2) their experiences in the ED in visits prior to, and after, implementation of the EDT 3) their satisfaction with the care they received in the ED and their remaining unmet needs. Fifteen patients will be interviewed individually.
 - b) **Community Care Providers Interviews** (See Attachment H) – For the *post-ED care providers*, the objectives are to explore challenges in communication and coordination for patients referred to them by the ED and the degree to which the EDT can address those challenges. Post-ED care provider focus group members will be drawn from Johns Hopkins Community Physicians, East-Baltimore Medical Center (a primary referral site for patients without primary care), and Healthcare for the Homeless, a not-for-profit organization in Baltimore, Maryland that provides health services, education and advocacy to people affected by homelessness. Six community care providers will be interviewed for this section.
 - c) **ED Directors Interviews** (See Attachment I) – Interviews from ED Directors will occur to get their opinions of the EDT from their perspectives as the ultimate orchestrators of processes in the emergency room and decision-makers regarding operations (resources use, staffing). Three ED directors will be interviewed separately for this portion.
- 6) **Administrative and Observational Data** – Quantitative outcome measures will come from an extraction of medical record data and direct observations performed by project RAs. Data will be extracted from hospital billing records and Electronic Medical Records (EMRs) and will include frequency of revisits, cost of 72-hour returns, cost of ED visits per 3 months, and the cost of implementing the EDT. To calculate costs of program implementation, RAs will observe the time required by social work, case management, and nursing staff to implement the interventions prescribed in the tool. They will also keep a log of the materials given to the patients as part of the intervention. To evaluate the percentage of patients evaluated for assistance or placement, RAs will observe case managers/social workers during their interaction with the patients. To evaluate the percentage of follow-up phone calls, the RAs will keep a log of attempts and actual contacts. Since these data collections involve RA observations, or extractions from existing medical records, they pose no burden to the hospital or public and therefore are not included in the burden estimates in Exhibits 1 and 2.

No pre-intervention measures will be collected because this is a feasibility study to evaluate the methodology and feasibility of collection of this data.-

This study is being conducted by AHRQ through its contractor, John Hopkins Hospital, pursuant to AHRQ's statutory authority to conduct and support research on healthcare and on systems for the delivery of such care, including activities with respect to the quality, effectiveness,

efficiency, appropriateness and value of healthcare services and with respect to quality measurement and improvement. 42 U.S.C. 299a(a)(1) and (2).

2. Purpose and Use of Information

As this is a pilot study, the purpose is not to demonstrate efficacy or effectiveness of the EDT. Specifically, knowledge gained from this pilot test will help identify needed modifications to the EDT and to determine whether broader testing at a larger, more diverse set of sites is merited. The data that will be collected is mostly qualitative. Although we will be collecting quantitative data on impacts and outcomes, the primary purpose is to determine feasibility of data collection and develop procedures to collect this data. Since this is only a pilot study in 3 sites, we do not intend to claim that outcomes or impacts will be generalizable, but rather illustrative of the kinds of impacts that might accompany tool use.

The results of this pilot study, including the EDT will be released on the AHRQ website as a product of this contract.

3. Use of Improved Information Technology

Information technology will be used in several ways in this study to facilitate data collection:

First, the majority of the data will be collected directly from the Johns Hopkins Hospital System (JHHS) electronic medical record system. JHHS uses a unified system that provides an electronic medical record (EMR) that includes Provider Order Entry (POE). The Johns Hopkins Emergency Department uses HealthMatics ED (HMED), which is a clinical information system created by Allscripts. The long-term goal of the EDT is that it will be easily integrated into the ED's EMR/IT system. This will facilitate the screening process and associated interventions.

Second, during pilot testing phases of this work, the EDT will be converted to an electronic tablet-based form that is not integrated with the EMR. Use of tablets provides an interim advantage over paper-based tools that we believe will facilitate the screening process and associated interventions, and improve data accuracy. Tablet-based forms will allow us to make rapid modifications to the EDT that would not be feasible with an EMR integrated tool.

4. Efforts to Identify Duplication

Johns Hopkins University (JHU) has conducted an environmental scan for information concerning this topic. Additionally, JHU has gathered information from technical experts and patient stakeholders from the research and clinical operations domains and patient advocacy sector. Results from these two modes of information gathering have helped to describe existing processes, strengths, weaknesses, omissions, barriers, and facilitators concerning this subject matter. Results also confirmed that there is a scarcity of research and data about this topic. A few prior studies have demonstrated specific characteristics that are independently associated with frequent ED use, such as poor physical or mental health, five or more annual outpatient

visits, and family income below the poverty threshold. Predictive tools, such as the Triage Risk Screening Tool (TRST), have been developed to identify elderly ED patients at risk for revisits, hospitalization, or nursing home placement, following ED discharge. The predictive accuracy of some of these tools has been challenged, and further development and validation are needed, particularly for applicability across different patient populations and treatment settings.

5. *Involvement of Small Entities*

This project focuses on Hospital Emergency Departments. While hospitals and their associated EDs vary in size, none are likely to be small. The smallest hospital involved in the study is Howard County General Hospital (HCGH), which consists of 238 beds and has an ED that treats an average of 63,000 patients per year. The data collections have been kept to the minimum needed for the project to be successful while imposing the least burden possible on the participating facilities.

6. *Consequences if Information Collected Less Frequently*

The study period will last for 19 weeks, which breaks down to approximately 6 weeks at each of three participating sites. A shorter data collection period (either by decreasing the study duration or number of sites) places us at risk of not collecting adequate information for the pilot testing of the EDT. Should we shorten the data collection period, we might not identify potential strengths, weaknesses, or feasibility issue with the EDT.

7. *Special Circumstances*

This request is consistent with the general information collection guidelines of 5 CFR 1320.5(d) (2). No special circumstances apply.

8. *Federal Register Notice and Outside Consultations*

8.a. *Federal Register Notice*

As required by 5 CFR 1320.8(d), notices were published in the Federal Register on August 27, 2013 for 60 days and again on January 29, 2014 for 30 days (see Attachment J). One comment was received (see Attachment K for the comment and AHRQ's response).

8.b. *Outside Consultations*

The following experts and stakeholder were consulted on definitions of successful discharge practices, data collection, an appropriate risk factors, interventions, and inclusion criteria for the tool:

- Michael C. Albert, MD – Physician and Office Medical Director, Johns Hopkins Community Physicians, East Baltimore Medical Center

- Marc Applestein, MD, MSB – Chairman of Department of Surgery, Howard County General Hospital; Urologist, Central Maryland Urology
- Dickson S. Cheung, MD, MBA, MPH, ED – Attending Physician, Carepoint P.C., Denver, CO; Quality Consultant, Carepoint, P.C. Hospital Corporation of America (HCA)
- Nilesh Kalyanaraman, MD – Chief Medical Officer, Healthcare for the Homeless
- Danielle M McCarthy, MD, MS – Instructor, Department of Emergency Medicine, Northwestern University Feinberg School of Medicine
- Chelsea Needel, LGSW – Social Worker, Adams Cowley Shock Trauma Center, University of Maryland
- Robert L. Wears, MD, PhD, MS – Professor, Department of Emergency Medicine, University of Maryland Health Science Center
- Marianne E. Weiss, RN, DNSc – Associate Professor & Wheaton Franciscan, St. Joseph/Sister Rosalie Klein Professor of Women’s Health

9. Payments/Gifts to Respondents

In order to incentivize patients and show appreciation to staff and partners in participation, we will be providing small nominal gifts/payments.

The 900 patient respondents who consent to participating in the pretest of the EDT will be provided a \$5 CVS gift card as compensation for their time in participating. In addition, 15 patient respondents who participate in the interviews will be given a \$20 CVS gift card. Lastly, 33 other participants will be provided a small gift of approximately \$20 in value. The annualized expenditure for payments to respondents is approximately \$5,460.

The following payments/gifts will be provided to respondents:

<u>Respondent Type</u>	<u>Payment/Gift</u>
EDT pilot-test	
Patient	\$5 CVS gift card x 900 = \$4,500
Key Informant Interviews	
Patient	\$20 CVS gift card x 15 = \$300
Community Care Provider	~\$20 gift (coffee mug, pen) x 6 = \$120
ED Director	~\$20 gift (coffee mug, pen) x 3 = \$60
Implementer Focus Groups	
Research Assistant	None
EDT Implementer	~\$20 gift (coffee mug, pen) x 24 = \$480

10. Assurance of Confidentiality

Individuals and organizations will be assured of the confidentiality of their replies under Section 944(c) of the Public Health Service Act. 42 U.S.C. 299c-3(c). That law requires that information collected for research conducted or supported by AHRQ that identifies individuals or establishments be used only for the purpose for which it was supplied.

11. Questions of a Sensitive Nature

No questions of a sensitive nature will be asked.

12. Estimates of Annualized Burden Hours and Costs

Exhibit 1 shows the estimated annualized burden for the respondents' time to participate in this pilot test. A research assistant will use the EMR to screen patients for past frequent ED use. This step does not represent a participant burden. Based upon historical data at our three participating sites, we expect approximately 200 patients per week to qualify as "frequent users" at these sites. Based upon available resources and recruitment, we expect to enroll and use the EDT with approximately 50 of these patients per week at each site to identify their specific risk factors and tailor interventions to their needs. Thus we will have a total of 900 patient participants (50 patients/per week * 6 weeks * 3 sites = 900 patients total). It will take about 20 minutes per patient to collect the data associated with the EDT. The one-month patient follow-up will be conducted with all 900 patients and will take 10 minutes to complete. The 3-month patient follow-up will be conducted with those patients identified as being uninsured and is estimated to take 5 minutes to complete.

Four focus groups will take place among RAs and non-RA EDT implementers. The first focus group will consist of three RAs who implemented the discharge tool. The other three separate focus group will exclude RAs and include eight other ED personnel that implemented the discharge tool. The total annualized burden for these focus groups is estimated to be 54 hours.

As a follow-up to the focus groups, in-depth interviews will also be conducted with members from different stakeholder groups. Between 12 and 16 patients will be interviewed as well as three ED directors and six community healthcare providers. The interviews will be conducted in person and require one hour to complete. The total annualized burden for these interviews is estimated to be 30 hours. The associated cost of the gift cards is included in the category title "Data Collection Activities" in Exhibit 3.

Exhibit 2 shows the annualized cost burden associated with the respondents' time to participate in the pilot test. The total annualized cost burden is estimated to be \$12,825

Exhibit 1. Estimated annualized burden hours

Form Name	Number of respondents	Number of responses per respondent	Hours per response	Total burden hours
Pilot Test of the Emergency Department Discharge Tool (EDT)				
EDT	900	1	20/60	300
One Month Patient Follow-up	900	1	10/60	150
Three Month Patient Follow-up	180	1	5/60	15
Implementer Focus Groups				
RA Focus Group	3	1	2	6
EDT Implementer (non-RA) #1 Focus Group	8	1	2	16
EDT Implementer (non-RA) #2 Focus Group	8	1	2	16
EDT Implementer (non-RA) #3 Focus Group	8	1	2	16
Key Informant Interviews				
Community Healthcare Provider Interview	6	1	2	12
Patient Interview	15	1	1	15
ED Director Interview	3	1	1	3
Total	2,031	NA	NA	549

Exhibit 2. Estimated annualized cost burden

Form Name	Number of respondents	Total burden hours	Average hourly wage rate*	Total cost burden
Pilot Test of the Emergency Department Discharge Tool (EDT)				
EDT	900	300	\$22.01 ^a	\$6,603
One Month Patient Follow-up	900	150	\$22.01 ^a	\$3,302
Three Month Patient Follow-up	180	15	\$22.01 ^a	\$330
Implementer Focus Groups				
RA Focus Group	3	6	\$17.86 ^d	\$107
EDT Implementer (non-RA) #1 Focus Group	8	16	\$27.42 ^b	\$439
EDT Implementer (non-RA) #2 Focus Group	8	16	\$27.42 ^b	\$439
EDT Implementer (non-RA) #3 Focus Group	8	16	\$27.42 ^b	\$439
Key Informant Interviews				
Community Healthcare Provider Focus Group	6	12	\$45.36 ^c	\$544
Patient Interview	15	15	\$22.01 ^a	\$330
ED Director Interview	3	3	\$97.30 ^e	\$292
Total	2,031	549	NA	\$12,825

* National Compensation Survey: Occupational wages in the United States May 2012, “U.S. Department of Labor, Bureau of Labor Statistics.”

a – based on the mean wages for All Occupations (00-0000)

- b - salary based upon average of: 2 nurses (29-1141), 2 case managers (29-1141), 2 social workers (21-1022) , and 2 research assistants (19-4061)
- c - salary based upon average of: 2 physicians (29-1060), 2 nurses (29-1141), 2 case managers (29-1141), 2 social workers (21-1022).
- d – based on mean hourly wage of: Social Science Research Assistants (19-4061)
- e – based on mean annual wage of: Physicians and Surgeons (29-1060)

13. Estimates of Annualized Respondent Capital and Maintenance Costs

Capital and maintenance costs include the purchase of equipment, computers or computer software or services, or storage facilities for records, as a result of complying with this data collection. There are no direct costs to respondents other than their time to participate in the pilot test.

14. Estimates of Annualized Cost to the Government

Exhibit 3 shows the estimated total and annualized cost to the government to conduct this pilot test. The total cost is estimated to be \$670,038 over the 18 month data collection period. The cost of the gift cards is included in the category title “Data Collection Activities.”

Exhibit 3. Estimated Total and Annualized Cost

Cost Component	Total Cost	Annualized Cost
Project Development	\$74,177	\$49,451
Data Collection Activities	\$256,417	\$170,945
Data Processing and Analysis	\$20,960	\$13,973
Publications of Results	\$8,336	\$5,557
Project Management	\$53,715	\$35,810
Overhead	\$256,434	\$170,956
Total	\$670,038	\$446,692

15. Changes in Hour Burden

This is a new collection of information.

16. Time Schedule, Publication and Analysis Plans

The anticipated schedule and publication plan for this project is shown in Exhibit 4. Once the project team receives OMB clearance, they will begin screening and enrolling qualifying ED patients from the three participating hospitals.

Exhibit 4: Anticipated data collection schedule and publication plan

Activity	Month															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
										1	1	1	1	1	1	1
										0	1	2	3	4	5	6

Test ED discharge prototype tool	•	•	•	•	•	•	•	•	•									
Analyze results from prototype testing										•	•							
Submit preliminary report of results											•							
Revise and modify tool													•	•	•			
Draft final report of results and recommendations														•	•			
Publish and disseminate findings																		•

Focus Group and Interview Analysis

Analysis of focus group and interview data will be based on a modification of grounded theory, with an emphasis on discovering patterns from the “ground up.”(Glaser & Strauss, 1967) We will audiotape, transcribe and conduct content analysis of the transcripts of these discussions to identify emergent themes for further examination.

At least two different team members will examine the notes independently to exhaustively identify relevant concepts within and across the sessions. Audio recordings of the focus groups will be available for review. The team members will discuss their independent lists and gain consensus on a unified set of the relevant constructs. Prototypical text will be selected to illustrate the most salient theoretical constructs. Theme content and coding will be checked by presenting preliminary analyses to the team and back to the stakeholder group (see citations section at the end of document).

Quantitative analysis will also be performed (means, medians, and percentages). Exhibit 5 details the measures that will be captured.

Exhibit 5: Description of Calculated Metrics

Type of Metric	Metric Title	Metric Description	Data Source	Collection Methodology
Outcome Metrics	72h/3m	Number of 72h ED returns per 3 months	EMR	RA abstraction
	72h/y	Number of 72h ED returns per year	EMR	RA abstraction
	# ED visits/3m	Median number of ED visits among frequent	EMR	RA abstraction

		ED users per 3 months		
	# ED visits/y	Median number of ED visits among frequent ED users per year	EMR	RA abstraction
Financial Metrics	Cost of 72h/3m	Cost of the 72h return ED visits per 3 months (billed and collected)	Billing Department Data	Abstraction of Billing Dept Data
	Cost of 72h/y	Cost of 72h return ED visits per year (billed and collected)	Billing Department Data	Abstraction of Billing Dept Data
	Cost ED visits/3m	Cost of ED visits per 3 months for all frequent ED users (billed and collected)	Billing Department Data	Abstraction of Billing Dept Data
	Cost ED visits/y	Cost of ED visits per year for all frequent ED users (billed and collected)	Billing Department Data	Abstraction of Billing Dept Data
	Project Cost/3m	Cost of implementing ED Discharge Tool per 3 months (PROJECT COSTS)*	RA observation	RA to collect
	Project Cost/y	Cost of implementing ED Discharge Tool per year	RA observation	RA to collect
		% insured	Percent of uninsured frequent ED users that have acquired any form of insurance within 3 months after	Patient response

		ED intervention		
	% F/U with PCP	Percent of frequent ED users with no PCP that have a primary care follow-up visit within 4 weeks after ED intervention	Patient response	RA telephone interview
	% F/U with Detox.	Percent of frequent users with substance abuse that have a detox. center follow up visit within 4 weeks after ED intervention	Patient response	RA telephone interview
	% F/U with Psych.	Percent of frequent ED users with psychiatric illness that have a psychiatric follow-up visit within 4 weeks from ED intervention	Patient response	RA Telephone interview
	% evaluated for assistance/placement	Percent of frequent ED users with physical/cognitive impairment that have an evaluation (of need and eligibility) for home assistance or placement within 4 weeks from ED intervention; <i>and</i>	Observation of social worker/case worker	RA observation
	% evaluated for assistance/placement who qualify	Percent of frequent ED users with	Observation of social worker/case	RA observation

		physical/cognitive impairment that have an evaluation (of need and eligibility) for home assistance or placement within 4 weeks from ED intervention who qualify.	worker	
	% assisted/placed	Percent of eligible frequent ED users with physical/cognitive impairment that have home assistance or placement within 4 weeks from evaluation	Patient response	RA telephone interview
	% F/U phone calls	Percent follow-up phone calls connected within 48 hours (following 2 business days) in frequent users/high risk patients (> 2 risk factors)	Follow-up phone call log	RA Review of phone call log
<p>*Project costs include the following: Time of research assistant, time of case manager, time of social worker, cost of materials (medication vouchers, taxi rides, canes/walkers/wheelchairs), time making follow-up phone calls performed by research nurses and clinicians. EMR – Electronic Medical Records</p>				

Publication Plan

The results of the analyses will be published in various forms. We will seek to disseminate results via peer-reviewed journals such as *Annals of Emergency Medicine*, *Academic Emergency Medicine*, or the *Joint Commission Journal on Quality and Patient Safety*. Results will also be

presented at professional and academic conferences such as the American College of Emergency Physicians, Academic Emergency Physicians, and Emergency Nurses Association meetings.

17. Exemption for Display of Expiration Date

AHRQ does not seek this exemption.

List of Attachments:

- Attachment A – ED Discharge High Risk Screening Checklist Tool
- Attachment B – ED Discharge Tool (EDT) User’s Guide
- Attachment C – One-Month Patient Follow-up Questionnaire
- Attachment D – Three-Month Patient Follow-up Questionnaire
- Attachment E – EDT Implementers Focus Group Guide
- Attachment F – Research assistant Focus Group Guide
- Attachment G – Patient Interview guide
- Attachment H – EDT Implementer Interview Guide
- Attachment I – ED Director Interview Guide
- Attachment J – Federal Register Notice
- Attachment K – Public Comment & Response