American College of
Emergency Physicians®

ADVANCING EMERGENCY CARE

Transitions of Care Task Force
Report

Created by members of the ACEP Transitions of Care Task Force

September 2012

Transitions of Care Task Force Report

Created by members of the ACEP Transitions of Care Task Force
September 2012

William P. Jaquis, MD, FACEP, Chair
Jay A Kaplan, MD, FACEP, Board Liaison
Chris Carpenter, MD, MSc, FACEP
Dickson S. Cheung, MD, FACEP
William C. Dalsey, MD, FACEP
Cai Glushak, MD, FACEP
Daniel A. Handel, MD, MPH, FACEP
Chad Kessler, MD, MHPE, FACEP
Rahul Khare, MD, FACEP
Sharon Mace, MD, FACEP
Sarah Terez Malka, MD
Abhi Mehrotra, MD, FACEP
John S. Milne, MD, MBA, FACEP
Robert O'Connor, MD, MPH, FACEP
Randy Pilgrim, MD, FACEP
Matthew M. Rice, MD, JD, FACEP
Derek J. Robinson, MD, MBA, FACEP
Mark S. Rosenberg, DO, MBA, FACEP, FACOEP-D
David C. Seaberg, MD, CPE, FACEP
Steven P. Sbardella, MD, FACEP
Arjun K. Venkatesh, MD, MBA
Robert L Wears, MD MS, FACEP
Lori Weichenthal, MD, FACEP
Andrew R. Zinkel, MD, FACEP
Marilyn Bromley, RN

Contents

EXECUTIVE SUMMARY

Patients seek care from a large number and wide variety of providers, settings, and locations. The amount of information patients bring into and take away from their "doctors' appointments," scheduled or not, is increasingly robust and complex and rarely "packaged" for easy transfer from one encounter to the next. For patients, their families, and their care providers, sifting through complex and disparate diagnostic, and therapeutic information to agree on a unified plan of care is problematic. At the least, we waste time trying to decide what is important and actionable. At the worst, we fail to execute transitions of care successfully, and then we increase costs, diminish quality, and increase the likelihood for adverse outcomes.

Who says transition of care is a problem we should solve? The Joint Commission has publicly recognized that an inability to effectively transfer information and accountability is a primary factor in sentinel events. The World Health Organization has made it a high priority for its patient safety initiatives. The Centers for Medicare & Medicaid Services has established a Community-based Care Transitions Program. The Accreditation Council for Graduate Medical Education has established effective communication during these transitions as a requirement of residency training.

Effective transitions-of-care programs are not uniformly in place in our emergency departments, nor are we generally taught how to establish them. There are pockets of success, but there are more instances of failed communication. Emergency departments are complex environments, and pathways for efficient information transfer and patient handoffs must reflect our circumstances. Obtaining past medical and surgical history and medication profiles for patients who present to emergency departments for episodic care, for example, will require additional effort from physicians, skilled nursing facilities, and the patients themselves. Within the department, where the environment and flow are not naturally conducive to good transitions, structure and consistency are critical to maintaining safety in the numerous handoffs that occur during a patient's stay. And as patients transition from the emergency department to the hospital or to the primary care outpatient setting, coordination of information and access pose unique problems.

Despite these barriers, the emergency department has an important, in fact pivotal, role in transitions of care and can enhance its value to the system by implementing more successful transition programs. As the emphasis and oversight of quality and cost increase, successful coordination of patients' journeys through the health care system will help advance the triple aim of better population health, better patient experiences, and reduced cost to the system.

To achieve this goal, the Transitions of Care Task Force makes the following recommendations:
1. Improve residency training and continuing professional development for emergency physicians on the importance of handoffs in effective transitions of care.
2. Enhance and promote training and education for all emergency department personnel regarding the importance of transitions of care and how to implement effective policies and procedures.
3. Assess provider performance, especially that of residents, with appropriate feedback, and provide training in communication skills as necessary.
4. Work with emergency department information system vendors to produce transition support tools.
5. Identify strategies that make handoffs successful, and use them to establish goals for emergency departments.
6. Identify the components of a minimum data set for all transitions.
7. Work with the Society of Hospital Medicine to hardwire the handoffs between the emergency department and the hospitalists.
8. Evaluate tools currently used to guide emergency department handoffs, identifying the assessment tool or guidelines used.
9. Develop a web-based toolkit that includes resources, assessment and support tools, and best practices.
10. Promote widespread adoption of immunization programs for all, and screening programs for drug and alcohol abuse and domestic violence.
11. Develop education resources on palliative care in the emergency department to enhance knowledge and increase the number of emergency department-based palliative care programs.
12. Seek funding for effective emergency department-based transition programs.
    Consider developing measures that quantify effective transitions.
13. Solicit research to determine the effectiveness of transitions of care programs on patient outcomes, especially related to emergency department revisits for the same condition and hospital readmissions.

Abbreviations used in this report

ACGME	Accreditation Council for Graduate Medical Education
ACO	Accountable care organization
AHRQ	Agency for Healthcare Research and Quality
AIDS	Acquired immune deficiency syndrome
BMI	Body mass index
CMS	Centers for Medicare & Medicaid Services
CORD	Council of Residency Directors
ECG	Electrocardiogram
EMR	Electronic medical record
EMS	Emergency medical services
EOL	End of life
HIV	Human immunodeficiency virus
ICU	Intensive care unit
NEMSIS	National EMS Information System
NTOCC	National Transitions of Care Coalition
PCP	Primary care physician
SAEM	Society for Academic Emergency Medicine
SNF	Skilled nursing facility
Tdap	Tetanus, diphtheria toxoid, and acellular pertussis
TJC	The Joint Commission
TOC	Transitions of care
WHO	World Health Organization

PREHOSPITAL TO EMERGENCY DEPARTMENT TRANSITIONS

Emergency physicians have little (if any) direct control over the information that accompanies patients who arrive from different points of care. In many cases, the information is whatever was deemed relevant by an EMS agency, staff at a SNF, another provider, or a family member.

Still, the emergency department can have a positive impact on the effectiveness of the care it delivers by educating providers and the public as to the key information that will facilitate a patient's course and continuity of care. Emergency physicians can and should advocate for community-wide transition processes with all regular stakeholders who are likely to direct patients to the emergency department, including family members and other caretakers. Patients are better served when providers have up-to-date information on their health status and when they can comply with an intended plan of care, avoid incompatible medications, and prevent redundant procedures and unnecessary readmissions. This becomes even more important as primary practitioners and ACOs become more commonly accountable for cost-effective management.

Is there a dataset of core medical information that should accompany any patient to any entry point in the health care system? Efforts to answer this question were spawned by the increasing mobility of patients and an increasingly diverse medical community in which patients are likely to encounter multiple providers, often with little advance notice. Our specialty is well advised to define a core minimum dataset that it would expect to receive from key providers responsible for a patient's overall care and that might even remain in the patient's possession (eg, a smart card, USB key, or chip). A sample dataset for emergency department use is shown in Table 1, and could apply to a patient's primary care provider, SNF, or base hospital. Some of this information might also be available to EMS providers and home health or other personal caregivers. Finally, emergency departments should develop standard information collection templates to ensure that they capture key data (Table 2) about patients before they arrive. These

templates should be designed for use during conversations with EMS crews, staff at other facilities, other providers, and even family members and other caregivers.

Table 1. Core Patient Data

Demographics		
	Name	
	Date of birth	
	Place of birth	
	Current address	
Contacts		
	Next of kin	
	Person with Healthcare Power of Attorney	
PCP		
	Name	
	Telephone - 24 hour	
	Address	
Other regular providers (Oncologist, Cardiologist, Home Health Agency)		
Primary hospital relationship		
	Name	
	Location	
Medical		
	Allergies	
	Medical diagnoses/conditions	
		Current problems
		Past Surgeries
	Baseline mental status	
	Key disabilities/deficits	
	Medications and treatments	
		Condition for which indicated
		Home O2, pacemaker, CPAP, etc)
	Recent hospitalizations - location and diagnosis	
	Most recent EKG - image or report	
	Vaccination status	
	Most recent diagnostics - blood tests/imaging, etc	
Social		
	Key dependencies	
	Clinically relevant substance use	
Advanced directives		

Table 2. Expected Patient Data Elements

Age	
Acute complaint/problem	

Active medical problems	
Recent relevant diagnostics	
Relevant related issues - social; disabilities, etc	

Advance Directives
The importance of transferring advance directives to EMS and emergency department personnel cannot be overemphasized. The documents should be with the patient at all times and readily available within the patient's medical record.

Primary Care Practitioners
Primary practitioners should have all the key information regarding a patient's health care and should be expected to maintain the full core dataset defined in Table 1. Ideally, this "package" of information would accompany the patient or be sent ahead when the patient is dispatched to the emergency department. It should be obtainable 24 hours a day from the primary practice or, in the most integrated systems, by secure access to the primary practice's electronic record system. The exchange of data electronically should be a point of discussion within health care systems and ACOs as they enhance their EMRs. In addition, to embrace the concept of accountable care, all physicians who are taking call for a practice should be able to access a comprehensive patient record at any time of day.

Skilled Nursing Facilities
For long-term residents, SNFs generally provide primary care under the direction of a supervising physician; they should be expected to maintain comprehensive records. For short-term residents, most of whom have been recently hospitalized, the SNF should have a recent summary of care (Table 3). As a group, SNFs are not as advanced as other health care entities in moving to EMRs, so updating, printing, and transmitting comprehensive summaries can pose a challenge.

Table 3. Skilled Nursing Facility - Specific data elements

SNF contact information	
	Sending nurse/Unit/Contact information
PCP with contact information	
Next of kin/guardian with contact information	
Main hospital relationship	
Acute complaint/problem and summary of recent medical care	
Most recent hospitalization	
	Location
	Date
	Diagnosis
	Major procedures
Function	
	Baseline mental status
	Language ability

	Activities of daily living/impairments
	Prostheses/special equipment
	Special needs
Advance directives	

In addition to core medical data, the "package" of information for the emergency department should include results of all recent tests and radiology studies, vaccination status, baseline mental status, a clear reason for transfer to the hospital, medication records, and contact information for caregivers. Discussion of advance directives is standard practice in many SNFs and a requirement in some jurisdictions. Transfer documents should always indicate whether an advance directive is in effect (or not), and copies of legal documents should accompany the patient on any transfer.

Many SNFs have a templated transfer form. Some communities have even adopted standardized forms. Unless the patient's condition is too unstable, every effort should be made to arrange transfer to the hospital that is most familiar with the patient or that has most recently provided treatment for the patient's most serious problems (eg, postoperative care).

And as is the case with all transitions, a care provider (eg, physician, PA, NP) who has knowledge of the patient's medical history should be involved.

Home Health Care
Agencies or individuals who provide home health care should maintain comprehensive problem and medication lists. Agencies should have complete records of recent care and are appropriate repositories for core medical data. An individual provider who requests transfer to an emergency department should provide a concise summary of the current problem and whatever core information is in his or her possession. Agencies should be reachable on a 24 hours a day and have access to core data to share with emergency personnel as needed.

EMS
EMS providers have a critical role in gathering and transferring essential information to emergency departments, and their training must emphasize careful acquisition and documentation of data despite often-hurried circumstances. As many patients transported by ambulance are acutely and often critically ill, emergency department personnel must receive complete information about the patient's status and care delivered en route. In particular, they need information that was available only to the EMS crew, including a patient's living and social conditions (including indications of abuse or neglect), accident circumstances, key contacts, witnesses to events, and medication and problem lists. If one is available, a copy of a patient's complete medication list should accompany the patient or if not, the medications themselves, The NEMSIS initiative defines a standardized dataset that, among other things, covers key demographic and medical background information of importance to emergency practitioners.

EMS records have become increasingly digitized and multimodal (ie, rhythm, oximetry, 12-lead ECG, capnography) and are rich sources of information. Ironically, many systems are challenged to deliver all the information acquired in real time to the receiving emergency department as compared with providing a simple written record. Consistent with ACEP policy, all information from prehospital EMS transports should be imparted to the emergency department for real-time review and use, whether in print or electronically. This can be accomplished by equipping emergency departments with docking stations/printers compatible with EMS computers or by fully enabled electronic transfer to the department's EMR system.

When circumstances suggest that advance directives are in effect, EMS personnel should ask if a document is available and whether a copy can be transported with the patient. EMS agencies should recognize their role in continuity of care and cost-effective use of health care resources, and crews should attempt to deliver patients to facilities that provide their comprehensive health care or that are most appropriate for the complaint (eg, hospital where recent surgery was performed) unless the patient's condition is too unstable to tolerate travel to that destination.

Patients and Caregivers
We should educate patients on the importance of understanding their own health status and of keeping their core medical information ready to share. There are several online resources for gathering and summarizing personal health records. Even a simple record of health problems and medications such as the NTOCC "My Medicine List" (http://www.ntocc.org/Portals/0/PDF/Resources/My_Medicine_List.pdf) helps; this and a list of key contacts and advance directives should remain in the possession of the individual or caretaker.

TRANSITIONS WITHIN THE EMERGENCY DEPARTMENT

Transitions of care may be defined as transfers of information, responsibility, and authority as patients move among health care practitioners, settings, and home as their care needs change. We also refer to them as handoffs, changeovers, signouts, and signovers, but our goal is the same: to allow subsequent providers to act safely in the patients' best interests.

Implicit in this definition are three distinct, simultaneous dimensions, as follows:
- **Information transfer.** This includes relevant medical history, details of acute illness, physical examination findings, vital signs, laboratory test results, treatments received and pending, and diagnostic examinations completed or in progress.
- **Responsibility transfer.** At the time of changeover, the incoming provider accepts responsibility for the patient's ongoing care needs. This includes legal responsibility and accountability.
- **Authority transfer.** The new provider also accepts primary authority over continued care, effectively becoming the patient's care provider until the next care transition.

Why Do Transitions of Care Matter?

The number of transitions has increased due to the recent changes in the ACGME resident work-hour mandates, leading to an increased interest in evaluating the effects of these changes on patient care and safety.[1] The Joint Commission Center for Transforming Healthcare estimates that poorly communicated handoffs lead to 80% of serious preventable medical errors and are the leading cause of sentinel events reported to TJC.[2,3] National health care organizations have released mandates calling for the standardization of transitions of care and for increased education in effective handoff communication skills.[1,4]
Poor transitions of care can lead to critical errors if providers receive incomplete, inaccurate, or poorly communicated patient information and if responsibility and authority are not clearly established. We can infer from nonmedical literature that standardization should improve the overall quality and safety of care transitions, but analyses of medical handoffs have not supported any single method of standardization as being effective.[5-7]

Patient Safety
Successful care transitions are a vital component of safe, high-quality patient care. Effective handoffs ensure that subsequent providers receive all the information they need in a manner that allows them to act

safely and effectively in patients' best interests. When effective changeovers do not occur, patient outcomes suffer. TJC compiled data from 10 hospitals and found that poor handoffs led to "delay in treatment, inappropriate treatment, adverse events, omission of care, increased [length of stay], avoidable readmissions, increased costs, and inefficiency."[8]

In 2004, TJC identified communication errors as the key contributory factor in more than 70% of all sentinel events, 75% of which resulted in patient fatality.[9] TJC lists "improving effective communication throughout the hospital" as a lead patient safety goal in the United States.[3] The WHO also recognizes "communication during patient care handovers" as one of its "high 5 patient safety initiatives."[10]

National Mandates and Recommendations
The Emergency Medicine Milestones project, published by SAEM, lists "ensures transitions of care are accurately and efficiently communicated" as a competency expected of all graduating emergency medicine residents.[4]

The ACGME published a report in 2010 stating that "sponsoring institutions and programs must ensure and monitor effective, structured handover processes. . ." and that "[p]rograms must ensure that residents are competent in communicating with team members in the handover process.[1]"

TJC's 2006 National Patient Safety Goals recommended that hospitals implement "a standardized approach to hand-off communications, including an opportunity to ask and respond to questions."[3]

What Are Barriers to Effective Transitions of Care?

Too Much or Too Little Information
Cheung et al describe the problem of "conciseness versus completeness" as a primary barrier to successful handoffs.[11] Providing too much detail for each patient takes an unacceptable amount of time at a busy emergency department shift change and can obscure the most important action items. However, observational studies of physician handoffs have found that vital information such as physical examination findings was excluded 40% to 60% of the time.[11-15] Missing information such as home medications can lead to dangerous errors and to inefficiencies, for example, repeating a previously performed physical examination or reinterviewing a patient.[4] Inappropriately detailed or incomplete handoffs likely contribute to the correlation between medically complex patients and nonideal handoffs, noted in several studies.[15,16]

Discrepancy in expectations of the provider and the recipient is also a key factor in communication breakdown.[3] Emergency department providers interact with providers in multiple disciplines, either for consultations or for admissions. Consultants and admitting physicians have different needs and expectations and might want a different level of detail depending on their specialty and on patient complexity.[6] Apker et al observed 15 handoffs from emergency physicians to accepting hospitalists and concluded that true collaboration did not occur and that emergency physicians and internists had differing and perhaps contradictory goals for the observed encounters.[17]

Although standardization of communicated information seems like a logical solution, reviews have not proved that any standardization tool improves the transfer of information.[7,18] The heterogeneity of handoffs that occur in the emergency department precludes a standard data set that would fit all encounters.[13]

Cognitive Bias
Campbell et al describe how emergency department providers might be at increased risk of diagnostic errors that affect patient safety. They define multiple cognitive biases that can hinder a provider's ability

to come to the correct diagnostic conclusion and explore how the emergency department environment creates a "perfect storm" of chaotic elements that contribute to or exacerbate these biases.

So when a handoff occurs, the patient is vulnerable to the cognitive biases of not just one but multiple providers. And because receiving physicians typically receive patients whose diagnostic workups, treatments, and dispositions are already in progress, they are especially prone to making errors "due to inheriting someone else's thinking." (Table 4)[19]

Table 4. Error due to inheriting someone else's thinking.[19]

Triage cueing	A predisposition toward a particular decision as a result of a judgment made by caregivers early in the patient care process.
Diagnosis momentum	The tendency for a particular diagnosis to become established in spite of other evidence.
Framing effect	A decision being influenced by the way in which the scenario is presented or "framed."
Ascertainment effect	When thinking is preshaped by expectations.

Beach et al examined emergency care transitions in the context of an emergency department case study. In the case, cognitive bias had a significant role in the failure to correctly diagnose and treat the patient's condition. The authors concluded that emergency department staff need further training in the hazards of transitions and need to maintain a heightened awareness of the potential biases influencing their decision-making.[20]

Failure to Transfer Authority
A handoff is a transfer of responsibility and authority for a patient's care. However, if not explicitly agreed on by the involved providers, the exact timing of this transfer is not always clear.

Inhospital Transitions

Every emergency department encounter goes through multiple transition points. The goal of most of these handoffs is to concisely and efficiently convey the information necessary for the provider to ascertain and manage the patient's acute medical needs and decide on appropriate disposition. The first handoff can be from an EMS crew to an emergency physician, or from a referring physician (by telephone) to an emergency physician. Within the department, handoffs occur between emergency physicians at shift changes and during breaks and between emergency physicians and consultants.

The next transition occurs when the patient leaves the emergency department. A handoff might occur between the emergency physician and an admitting team, or an accepting physician at a receiving institution, or with a primary care physician or home health care provider at discharge. When the patient's acute medical needs have been fully addressed, the emergency physician might decide that the patient has other needs that are better addressed by a social worker, case manager, home health nurse, or other member of the medical team. This type of handoff can be more detailed and nuanced than those that occur within the department as the accepting providers prepare to care for the patient's longer-term medical needs in addition to the acute illness.

For hospitalized patients, handoffs occur during transfer between medical services and between levels of care (eg, ICU to ward), as well as between consulting and primary team members. Handoffs also occur at each routine shift change, an event that has increased due to the new ACGME resident work-hour mandates. The time and effort required for effective handoffs of hospitalized patients vary depending on

the condition's complexity and acuity, the patient's acute care needs, and the providers' familiarity with the patient.

Although inhospital transitions of care are often considered together, these examples demonstrate that many types of handoffs occur as patients make their way through their hospital stays. The providers involved in these handoffs have unique goals and needs depending on their roles and on acuity and complexity of the condition and the acute and long-term care needs of the patient.

Barriers to Effective Inhospital Transitions

Current practices are suboptimal. Faulty handoffs were the single most common factor leading to malpractice claims for one insurance provider in 2005 and are implicated in up to 24% of emergency department malpractice claims.[3,21] This same report labeled 27% of observed changeovers as "defective," featuring omissions in critical content or suboptimal communication processes.[3] An in-progress survey of CORD members, emergency department chairs, and residents found that only 3.4% of CORD members and 10.2% of surveyed residents described their handoff systems as "extremely safe/effective."

An observational study of emergency department handoffs at a teaching hospital found that the observed encounters were not compliant with the TJC requirement of leaving dedicated time for collaboration and questioning. Authors also noted that many encounters did not include any form of "readback" (repetition of communicated information) or verification from the accepting provider that he or she understood and accepted responsibility for the patient.[17] A similar study in the *American Journal of Emergency Medicine* noted that less than 10% of observed handoffs included a readback and that nearly half omitted vital clinical data. The authors further noted that attending handoffs were not significantly better than resident handoffs, suggesting that these skills do not naturally improve with time and experience.[22]

A recent study in *Pediatrics* suggested that practitioners are not able to adequately evaluate the quality of their own handoffs. The authors found that key pieces of information were missing from 60% of handoffs despite the fact that participating residents believed they communicated well. As noted in the emergency medicine literature, experience did not improve handoff practices.[12]

The emergency department is a high-risk environment for handoffs. In 2010, an article in *The Joint Commission Journal on Quality and Patient Safety* identified several strategies to address the most problematic elements of handoffs. These include "minimizing interruptions, conducting handoffs in a quiet area to reduce background noise, and determining what information is important to include in the handoff."[23] Unfortunately, the nature of the emergency department environment makes some of these strategies nearly impossible to implement, leaving emergency department handoffs particularly vulnerable to errors and omissions.

Interruptions and noise are impossible to avoid in a typical emergency department. TJC surveyed general surgery and internal medicine residents and found that 37% of them reported being interrupted "always" or "most of the time" during handoffs despite the fact that these encounters typically occurred in private, quiet locations.[24] Interruptions are likely to be far more prevalent during emergency department handoffs.

Emergency physicians hand off patients with conditions of varying complexity to providers in multiple specialties and occasionally to nonphysician care providers such as social workers. As a result, establishing a standard set of information to include in each specific handoff is difficult.

Emergency department patients are at higher risk for changeover-related errors because of the circumstances of their visits. These include: "[u]ncertain diagnosis, unstable patient, unclear-disposition, consult-driven evaluation, pending imaging study, deviations from particular diagnosis/treatment plan,

psychiatric illness, prolonged ED stay."[11] Additional research is needed to recommend strategies to ameliorate these risks.

Handoff is not being effectively taught in residency and medical schools. Even though effective handoffs are widely recognized as integral to high-quality patient care and are considered a mandatory competency of emergency residents,[4] studies across multiple disciplines show that handoff skills do not improve with experience and that there is no significant difference in quality between resident and attending handoffs. So if these techniques are not acquired through experience, they must be taught.[12,22] Few residency programs offer formal training in changeover and communication skills. Several studies have proposed and tested standardized algorithms, mnemonics, and curricula for enhancing changeover quality among residents. However, no validated educational interventions have proven benefit to handoff efficiency and patient outcomes.[7]

Handoffs are not "one size fits all." Much of the current evidence related to handoffs comes from nonmedical literature. Standardization and reducing variability are commonly considered to be the gold standard for improving handoffs. Various mnemonics, forms, and templates have been proposed to unify handoff protocols between institutions. Unfortunately, to date, no single intervention has been validated as effective in improving handoff communication and patient safety outcomes.[7,18]

Arora and Johnson published several articles in response to TJC's mandates to apply standardization in handoff protocols for residency programs. They assert that standardization is a core goal to improve overall quality, but they also found that the handoff protocol must be tailored to the end users in order to be successful. Handoffs are both discipline and organization specific and will not work unless they address their users' specific needs and barriers. This precludes the implementation of a one-size-fits-all template for all changeovers.[13,25]

A systematic review published in *Academic Medicine* analyzed interventions to improve handoff quality in relation to patient outcomes. The authors found that only the use of a written form had been assessed in multiple studies. Further, no individual handoff template was analyzed in more than one article. When analyzed together, the efficacy of these templates was mixed. The authors concluded that there is not enough data to endorse any single intervention as effective in improving clinical handoffs.[7]

Riesenberg et al confirmed this finding in a systematic review of 24 unique handoff mnemonics. Although many of these tools subjectively improved users' perceptions of the handoff quality and efficacy, the authors concluded that available literature was "not of sufficient quality or quantity to synthesize into evidence-based recommendations."[18]

Mnemonics and templates might have a role in enhancing changeover quality and might be appropriate in certain settings, but more research is needed to fully determine their efficacy and utility.

Focused Areas of Opportunity
Most articles on handoffs focus on disease management. Adverse outcomes are death or disease as a result of "repetition of management, delays or missed investigations and therapy, and delayed disposition."[26] Most proposed interventions focus on mnemonics and forms with an emphasis on ensuring that medical data are completely and succinctly communicated to the incoming provider.

Here are examples:
- You receive handoff at shift change, but the original treating physician remains in the department for another hour. She hears a nurse ask you a question about a patient and jumps in with the answer and then makes several changes to the orders.

- You admit patient to the ICU, and the receiving team accepts the admission and writes orders. There are no ICU beds available, so the patient remains in the emergency department. When the patient's clinical status worsens and the ICU resident is not readily available, you are called to the bedside to assess the patient.

Apker et al, in an assessment of emergency physician-to-hospitalist handoffs, noted that all observed handoffs lacked an explicit statement accepting patient transfer.[17] As extended boarding becomes more prevalent, multiple admitted patients remain in the emergency department for hours after admission.[27,28] And within the emergency department, if there is overlap at shift change, it might be unclear who is providing primary care for the patients after handoff has occurred but before the departing physician has physically left the department.

A consultations may technically be considered a handoff because there is a transfer of information, responsibility, and authority.[29] However, these communications are especially prone to confusion as only partial responsibility for the patient's care is assumed by the consulting physician. When the care of a patient requires the opinions of multiple consulting teams, or when the care plan and disposition are dictated entirely by a consultant's input, it can be unclear who retains primary authority for the patient's well-being while he or she is in the emergency department.

Communication failure is at the core of most suboptimal handoffs. The recently released ACGME milestones for emergency medicine rank communication skills and team management as core competencies on the same level as medical knowledge and procedural skills. "Ensures transitions of care are accurately and efficiently communicated" is listed as a key element of team management.[4]

Arora and Johnson argue that handoff skills should be taught in internship so that proper handoff processes will be ingrained and sustained.[13] A study published in *The Medical Journal of Australia* found that even though clinician use communication skills daily, they must practice and refine them "so that they can communicate in clear, concise, and appropriate ways in fast-paced environments that are often noisy and stressful."[30] A curriculum for teaching communication skills is needed: as mentioned previously, multiple studies have demonstrated that effective communication skills related to handoffs do not improve with level of experience or years in practice.[12,22,31]

In addition to poor communication skills, Arora and Johnson also observed failure-prone communication as a contributor to suboptimal handoffs.[13] The telephone is an example of a failure-prone communication method routinely used in many emergency department handoffs; EMS radio communications are another example. Although emergency physicians have little control over the method of communication, they still should hone their communication skills and opt for face-to-face communication whenever possible.

As noted previously, the data regarding the effectiveness of mnemonics and standardized forms are mixed. Many studies have shown that reducing variability improves the consistency of communicated clinical data and increases users' subjective ratings of handoff encounters. However, Riesenberg et al performed a systematic review of various mnemonics and concluded that there was not enough evidence to recommend for their use.[18] A systematic review by Foster et al explored handoff interventions in relation to patient outcomes. Seven of 12 studies assessing standardized handoff templates reported a positive outcome; six found no significant impact on handoff quality, and one actually noted a negative effect. They concluded that there is not sufficient evidence to recommend for or against the use of such templates.[7]

Here are some recommendations:
- We should do whatever we reasonably can to reduce interruptions and distractions during handoffs.[6,11,15,22,23,31]

- Our handoffs should incorporate two-way communication, and we should make time for questions and collaboration.[3,11,17,22,23,32]
- When we're the accepting providers, we should "readback" the information about the patient to confirm accurate understanding.[22]
- We should promote and support formal education on communication skills for residents and medical students.[1,4,13,20,23,26,31-33]
- We should practice and evaluate handoffs in our own departments.[30]
- Finally, we should consider using mnemonics or standardized forms that are tailored to our department's unique needs.[7,11,13,15,18,25,33]

Barriers Related to Special Populations and the Medical Home
The medical home model recognizes that many factors contribute to the health or lack of health of our patients. Ideal medical care addresses these additional needs as well as acute medical concerns. Emergency departments can incorporate the concept of medical home by offering access to social workers, case managers, financial counselors, and other support personnel, and by taking a patient's financial and social status, home support structures, and health literacy into consideration when making medical decisions for that patient.

Vulnerable populations. Patients who are unable to readily verbalize their own medical histories and needs must rely on providers to effectively communicate this information for them. These patients are especially vulnerable to an ineffectively communicated handoff and thus to suboptimal care. Risk factors include "complex comorbidities, advanced age, and low health literacy."[15] Other vulnerable populations include those with "uncertain diagnoses, patient language barriers, and those of lower socio-economic status."[11]

Emphasis on acute disease management. As noted previously, current changeover models focus primarily on information transfer and medical management and might overlook the complex web of medical, social, financial, and emotional needs that characterize our patients.[7] This is of special concern for emergency physicians, who often care for patients with general health-related needs in addition to their acute complaints. This is potentially exacerbated by the limited time and resources available to emergency physicians to fully address these concerns. There is a dearth of literature exploring changeovers of "high-risk" patients and integration of the medical home model into effective patient handoffs.[11]

EMERGENCY DEPARTMENT OUT-OF-HOSPITAL TRANSITIONS

For many years, emergency physicians were limited to the dichotomous decision to either admit a patient to the hospital or to discharge that patient without knowledge of follow-up or future access to care. But the options have evolved.[34] Now emergency physicians use a variety of pathways for post-emergency department care that create numerous and distinct transition of care needs and require systems innovations and solutions to ensure care coordination.

Katz et al[35] defined emergency department-based care coordination interventions to include the following: "1. Ensured incorporation of information from previous health care visits into the current ED visit; 2. Provided ED-based educational services on continuing care; needs after discharge; 3. Developed a post-ED treatment plan and next steps for obtaining appropriate aftercare; 4. Transferred information about the current ED visit to continuing care providers."

Based on this consensus definition and recent care coordination frameworks created by the AHRQ, we propose the following objective for effective out-of-emergency department care transitions:

"Communicating presenting symptoms, diagnoses, medication changes, consultation recommendations, referrals, and follow-up referrals to the patient's medical home and outpatient providers both during the emergency department visit as well as via communication systems designed to ensure loop closure and subsequent care activities."

Although no existing schema exists for out-of-emergency department care transitions, classifying these care pathways is essential to understanding the barriers to effective care coordination and best practices for quality improvement. Increasing patient complexity has created more uncertainty for emergency physicians at the time of patient disposition.[36] The spectrum of transitions out of the emergency department necessitate tools for effective communication and data exchange to a variety of care setting and providers including home, outpatient specialists, rehabilitation and skilled nursing facilities, mental health and substance abuse programs, and of course, the patient's primary care provider or medical home.

Here are the data elements critical to effective out-of-emergency department transitions, current barriers to effective emergency department-based care coordination, and emerging best practices and solutions to these barriers.

Critical Elements
The rationale behind developing a detailed transition record is to allow for optimal continuation and coordination of a patient's care following discharge from the emergency department. This record should be a standardized set of data elements that is provided to the patient or subsequent caregivers in electronic or print format and available at the time of discharge. Those elements include the following:
- the principal working diagnosis and/or chief presenting complaint,
- a list of all major procedures and tests performed along with any results pending. Those procedures might include fracture management, wound repair, minor surgical procedures, lumbar puncture, central line placement, and so on;
- instructions for followup care, which might include followup visits with a community provider, referrals to a health care facility, post-discharge therapy, and so on, and
- a list of new medications and any changes to the patient's previous "home" medications.

A detailed transition record that can be easily integrated into the patient's existing comprehensive care plan will assist in the care of the discharged patient, whether self-managed or managed by a network of providers in the patient's primary care team. Development of a standardized transition record will enable the emergency department to have a critical role in successfully executing the Care Coordination Activities detailed in the AHRQ Care Coordination Measures Atlas.[37]

Barriers to Effective Transitions
Obstacles to effective and reliable transitions of care from the emergency department to outpatient settings originate from patients, caregivers, providers, and systems of care. Recognizing the barriers between efficient communication and outpatient collaboration requires an understanding of the knowledge translation pipeline (Figure 1).[38]

Sequentially, these barriers include the following:

- Insufficient awareness or acceptance of emergency department and outpatient providers, patients, caregivers, and society regarding the fragile complexity of emergency department-to-outpatient medical care transitions.
- Unrecognized cognitive barriers of patients or caregivers, including dementia and delirium.[39,40]
- Poor discharge comprehension, communication skills in general.[41]
- Lack of communication adjustments for populations with lower health literacy.[42-47]
- Ineffective verbal communication resulting from emergency department crowding,[48,49] including:
  - Physician → Nurse
  - Physician → Patient and caregiver
  - Nurse → Patient
  - Physician → Outpatient health care teams
- Lack of financial incentives to take time on discharge to communicate effectively.
- Failure to distinguish subsets at higher risk for short-term decline.[50-53]
- Lack of EMR interoperability between emergency department and outpatient systems.[54]
- Insufficient social safety net, including poor access to both a primary medical home and specialty providers.
- Patients' lack of transportation from home to medical office settings.

Potential Interventions to Improve Out-of-ED Transitions
Project Goals

1. Establish low or no cost, evidence-based, recommendations to improve the safety and efficacy of in-hospital transitions of care.
2. Create educational goals/materials for medical schools and residency programs.
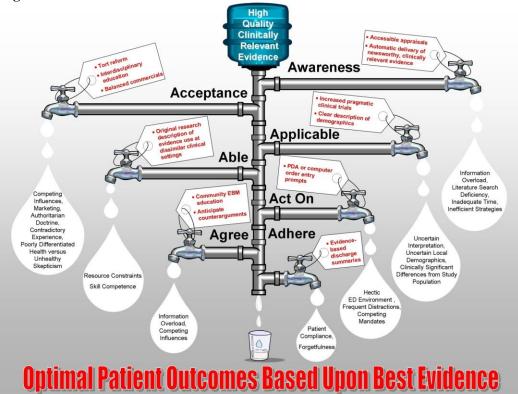3. Identify gaps in current literature and key areas for future research.

Figure 1

VALUE-ADDED PREVENTIVE CARE

Although emergency departments commonly provide some preventive care, the services offered vary and are not offered uniformly. Can value-added services such as preventive care, screening, and access to counseling be provided in more emergency departments to improve transitions of care? Each community would need to identify which services would provide the most value to them. And transition of care from the emergency department to outpatient services would have to be developed because it is often missing. Additional personnel would be required, although not necessarily physicians, but nurse educators or social workers. In addition, there must be adequate resources in the community to continue evaluation and treatment.

Immunizations

Most emergency departments provide tetanus prophylaxis for patients presenting with concerning wounds whose tetanus immunization status is out of date or unknown. With the increased outbreak of pertussis, most emergency departments are administering Tdap for their tetanus prophylaxis to increase the number of adults who are protected against pertussis. Only about one third of emergency departments routinely screen at-risk patients and provide immunizations for influenza and *Pneumococcus*. There are no data available on providing vaccinations from the emergency department for varicella, meningococcal infection, or other diseases that might be prevented by immunizations. Studies that have looked at the efficiency of providing pediatric immunizations in the emergency department have largely concluded that it is not advisable.

Services could be improved by ensuring that all adult patients are screened for their vaccination needs and provided with necessary immunizations during their emergency department visits (as appropriate for acuity and disposition). In addition, vaccination clinics could be held in the emergency department on targeted days, in a manner similar to what is now being done in some urgent care centers and pharmacies. The benefit of such a program would be an increased number of adult patients who are up-to-date on necessary vaccinations, which might decrease the number of emergency department visits and admissions for treatment of preventable diseases.

Violence Screening and Prevention

Many emergency departments screen all women or "at-risk" women for intimate partner violence and provide referrals and social services as needed. Some emergency departments, especially trauma centers, screen victims of violence for risk of retaliatory violence and potential reinjury. Screening all patients for the potential of injury due to violence could decrease the number of injuries due to violence treated in the emergency department and requiring admission.

Alcohol and Drug Screening, Intervention and Referral

Many studies show a benefit for brief alcohol/drug screening and intervention in the emergency department for at-risk populations; however, less than one third of surveyed emergency departments provide this service. Screening could help to decrease emergency department visits due to alcohol and drugs.

Primary Care Referral

About half of emergency departments surveyed try to provide reliable primary care linkage to their patients who do not have established primary care physicians. However, many patients who leave the emergency department are directed to follow up with a primary care provider whom they will not be able to see because of teir inability to pay or limited availability of appointments. Ensuring that all patients who are discharged have a medical home might decrease the number of emergency department visits and hospitalizations for preventable diseases. In many communities, this would require more primary care

providers willing to care for underinsured or uninsured patients. In addition, if all emergency departments were able to provide financial and insurance counseling to patients and ensure that they leave the emergency department with appropriate resources and referrals, it might decrease the number of visits to the emergency department for nonurgent conditions and improve the health of the community.

Hypertension, Diabetes, and Elevated Cholesterol Screening

All emergency departments routinely check vital signs, including blood pressure, and most will provide referral/education for patients with elevated blood pressure. Many screen at-risk patients for diabetes (unexplained infection, altered mental status, etc.) and some routinely screen all non-diabetic patients for diabetes and provide education and referrals. Very few emergency departments routinely screen for elevated cholesterol and provide appropriate referrals. Emergency departments could provide an increased value added service to their patients and community by providing routine screening for hypertension and diabetes. Screening for elevated cholesterol for all patients would be more time consuming and labor intensive.

Tobacco Cessation

Most ED providers screen for tobacco use, however, only a minority routinely provide cessation counseling and referral. Routinely screening all patients for tobacco use and providing cessation counseling and referral to all tobacco users could significantly decrease emergency department visits and hospital visits due to illnesses related to tobacco use.

HIV Screening and Referral

Less than 25 % of EDs provide HIV screening and referral to at-risk populations. The low level of screening for this disease in the emergency department is probably partly due to legal restrictions on testing for HIV that existed early in the history of AIDS and also due to lack of appropriate follow up. Screening could allow for the early identification of infected patients that would benefit from management and treatment.

Obesity Intervention

Emergency care providers may counsel at-risk patients regarding the dangers of obesity but few emergency departments have specific interventions designed to identify and provide appropriate referrals to these patients. Emergency departments could provide a community service but identifying at-risk patients (BMI > 30) and providing focused education and referral.

Screening for Depression

Many emergency physicians screen for depression in high-risk patients, however, few emergency departments routinely screen for depression although some studies suggest a high rate of depression (1 in 5) in emergency department patients. Consensus guidelines and a quick screening tool could be developed to identify at-risk patients in the emergency department.

Elder Screening

The number of elder patients is increasing and this population is at-risk for falls, abuse and dementia. Few emergency departments provide routine screening for fall risks or dementia and most screens for elder abuse are done on a case by case basis. Universal screening for fall risk, elder abuse (similar to screening for intimate partner abuse) and dementia screening for all emergency department patients over age 65 could significantly decrease emergency department visits and admissions and improve the health of the elders in the community.

Child Safety Screening

Many emergency departments provide education on use of child safety seats (required in some states) and some emergency physicians provide other safety information (helmets, prevention of unintentional poisonings, etc.) for high risk patients. Most emergency physicians have a high index of suspicion for non-intentional injuries in the pediatric population. Universal screening for child safety seat and helmet usage, creating a child safe home and education for parents on stress management to limit child abuse could significantly decrease the number of traumatic and toxicologic injuries to children in a community.

Barriers to Preventive Care

In a busy emergency department, providers already are challenged to execute handoffs without one or multiple interruptions. This problem would be exacerbated by the inclusion of more data elements, such as each patient's preventive care needs. Additionally, the primary action items might get lost if too many data points are added as part of handoff.

Although systematic reviews demonstrate reduced morbidity and mortality rates with implementation of screening interventions, the emergency physician's priority is the management of acute medical illness. Preventive care has a place within the emergency department, but there are no data assessing how to incorporate preventive care into current handoff models.

- Handoff models should consider the unique preventative care services offered within the emergency department.
- More research is needed to explore the best way to perform handoffs for patients with preventative care needs.

Resources for this section include:

- Delgado MK, Acosta CD, Ginde AA, et al. National Survey of Preventive Health Services in US Emergency Departments. *Ann Emerg Med.* 2011;57:104-108.
- Cunningham R, Knox L, Fein J, et al. Before and After the Trauma Bay: The Prevention of Violent Injury Among Youth. *Ann Emerg Med.* 2009;53:490-500.
- Rothman RE, Ketiogetswe KS, Dolan T, et al. Preventive Care in the Emergency Department: Should Emergency Departments Conduct Routine HIV Screening? A Systematic Review. *Acad Emerg Med.* 2003; 10: 278-85.
- D'Onofrio G, Degutis LC. Preventive Care in the Emergency Department: Screening and Brief Intervention for Alcohol Problems in the Emergency Department: A Systemic Review. *Acad Emerg Med.* 2002;9:627-38.

PALLIATIVE CARE IN THE EMERGENCY DEPARTMENT

Transition of Care and Communication

A palliative patient's preferences and goals of care are critical to medical management regardless of setting. During a Transition of Care (TOC), clear communication is vital to preserve the goals of care and prevent medical interventions contrary to the wishes of the patient and their family. As emergency physicians embrace the subspecialty of Palliative Medicine and as more palliative care is provided in the emergency department, the need for a TOC consensus in terms of standards and policies[2] will become imperative. There will be three areas of communication:

1. Pre Emergency: Whether the patient comes from home, hospice, or another facility, there needs to be a clear understanding of the patient's goals of care and advanced directives. This may include surrogate decision makers, physician orders for life sustaining treatment (POLST) or other advanced directive forms. The emergency department team will need to incorporate this information into their plan of care.

2. In the acute care facility the treatment goal needs to be communicated clearly within the emergency department team and when the patient is transitioned to an inpatient or observation bed. Clear communication of the plan of care must accompany the patient from the emergency department throughout their in-house stay.
3. The discharged palliative emergency department patient also requires a TOC. The palliative patient may be transitioned to hospice or respite care as well as other traditional discharge venues.

Making a Case for ED Palliative Care
"Even the ordinary methods of treating disease and prolonging life have changed the context in which men die. Fewer and fewer people die in the familiar surroundings of home or in the company of family and friends. At the time of life when there is perhaps the greatest need for human warmth and comfort, the dying patient is kept company by cardiac pacemakers and defibrillators, respirators, aspirators, oxygenators, catheters and his intravenous drip. Ties to the community of men are replaced by attachments to an assemblage of machines.[55]"

Patients with advanced and end-stage disease in need of symptom management and pain relief often present to the emergency department.[56-59] Research focusing on patients who were at the end-of-life found that these patients often did not receive the care they anticipated;[60] once in the acute care setting the patient's objectives and goals may be in direct contrast to the emergency department strategies of life-prolonging treatment.[61] The need for palliative care and end-of-life care in the emergency department becomes apparent when considering that these medically complex patients present to emergency department s every day. Providers of emergency care have a unique opportunity to support palliative care interventions early in a patient's disease trajectory, promoting quality of life as well as reducing cost associated with treatments.[56,62-64] The emergency department offers a solution to the large gap in outpatient services for these patients by providing access to multidisciplinary teams for assessment, planning and needed interventions 24 hours a day/seven days a week.[61] Recent literature suggests that palliative intervention in the emergency department provides numerous benefits to include timely provision of care[64,65] improved outcomes;[65,66] direct referrals to hospice,[64] reduced hospital length of stay;[64-66] improved patient and family satisfaction;65[13] less utilization of intensive care compared with similar patients receiving usual care;[63,67] and cost savings.[63-67]

The subspecialty of Hospice and Palliative Medicine concentrates on life threatening illnesses whether they are curable or not with palliative medicine representing the "physician component" of this interdisciplinary practice.[68] The Center for Medicare and Medicaid Services (CMS) defines palliative care as, "Patient and family-centered care that optimizes quality of life by anticipating, preventing, and treating suffering."[69] Whereas the WHO defines palliative care as, "Care which improves the quality of life of patients and families who face life-threatening illness, by providing pain and symptom relief, spiritual and psychosocial support from diagnosis to the end-of-life and bereavement."[70]

The focus is broad and includes several aspects of emergency practice already in place including symptom management, pain management, and discussion of critical decisions with families and loved ones. The typical emergency department environment many times is not conducive to the needs of the palliative care patient and their families. How does the emergency physician identify a palliative care patient, establish lines of effective communication, understand the patient's specific goals of care, and ultimately initiate a plan of care that involves a TOC? The best treatment option may be temporizing measures until family arrives or until a more complete history may be obtained. Temporizing measures focus on symptom management ie: Pain management, anxiety control, or simply fluid resuscitation. Even if the emergency physician does not know the patient's goals, seeking the correct treatment path is the physician's responsibility. The right treatment decision may require significant communication with those involved. Temporizing measures provide comfort for the patient while providing time for the emergency physician to gather as much information as possible in determining the plan of care.

Emergency physicians need to be familiar with the in-house palliative care team at their institution. The palliative care team can be contacted to work with emergency department patients with life limiting illness that prefer not to have a discussion or where there is insufficient time in the emergency department. A family meeting can be arranged for the morning or another mutually specified time. However, it is the ED physician's responsibility to transition care to the next provider whether it be another physician, hospice, visiting nurses, nursing home etc. To help in this transition, the emergency physician must have a hand off. This may require person-to-person communication, filling out forms, and writing notes.

The emergency physician cannot leave anything to chance. Nearly 100% of patients want to die at home or familiar surroundings and yet 70% of patients in the United States (US) die in healthcare facilities. Almost all of the 70% present to the emergency department and are admitted to acute care. Transitioning care and communicating the patient goals of care to the in-house palliative service, hospice service, or primary care physician (PCP) can help the patient live (or die) on their own terms. In order to accomplish this, the emergency department has to be in the forefront of this program for several reasons:

- The patient came to the emergency department with EOL or palliative issues and hence the obligation to manage them with the current expertise of palliative medicine;
- The treatment and initiatives that start in the emergency department follow the patient through the entire healthcare continuum;
- The emergency physician initiates the patient's plan of care.
- The emergency department is the gateway to hospital admissions, hospice care or discharge to another care facility all of which necessitate a TOC.
- Palliative Medicine is a subspecialty of emergency medicine and as we embrace other subspecialties we must embrace Palliative Medicine.

Potential barriers
Aside from the structural barriers inherent in the emergency department such as overcrowding, chaotic environments, and long wait times,[64,71] there are additional barriers to consider. Physician attitudes and perceptions influence the delivery of palliative care and range from personal perspectives of their emergency department roles and their knowledge of palliative care and available hospital resources to broader medico-legal issues and concerns regarding the response of in-house palliative care teams and hours of availability.[56,71] Time itself can be a potential barrier in terms of discovering which patients may be appropriate for palliative care interventions/referral, the presence or absence of advanced directives and support of patient/family in decision making. Financial barriers include reimbursement issues for palliative care services in the emergency department; billing codes do not address time spent with family discussing end-of-life issues.[71,72]

Finally, terminology may represent potential barriers to palliative care initiatives in the emergency department. Palliative care is not the same as end-of-life care.[73,74] The two terms, palliative and end-of-life, are used interchangeably in everyday language perpetuating the confusion. Further research is needed to define these terms in the emergency setting. Palliative care can be provided along with treatment that is meant to be curative or life-prolonging and can be very valuable to help relieve pain and suffering in patients dealing with illness that is chronic, life-threatening or potentially curable.

Different types of programs
To provide optimal palliative care, individual emergency department s need to identify and utilize existing resources both internal and external to the hospital. These may include individuals within the hospital system as well as partnering with community agencies, including hospice and palliative care providers, proficient in the care of chronically ill.[56] There are many emergency department palliative care delivery systems as providers draw on their experience to design programs to meet the needs of diverse

stakeholders resulting in three recurring models of palliative medicine/care in this area: emergency department palliative care partnerships; emergency department palliative care champions; and emergency department hospice partnerships.[61]

An example of an ED-palliative care partnership is the Life Sustaining Management and Alternatives (LSMA[c]) program in Paterson New Jersey at St. Joseph's Regional Medical Center (SJRMC). The primary goal of the LSMA is to identify those patients who might benefit from palliative care interventions upon entry into the healthcare system, providing real-time palliative consults in the emergency department. The LSMA program identifies and supports patients' and families' wishes, which are then carried out throughout the plan of care.

A pilot program at Scripps Mercy Hospital in San Diego, California is an example of a palliative care champion in the emergency department.[61] The program was initiated to increase emergency department - based palliative care consults; championed by an emergency physician also trained in palliative medicine.

Emergency department Focused Care[75] at Shands-Jacksonville is a collaboration of Community Hospice and emergency department personnel working to identify patients who may benefit from hospice care. For all emergency physicians, The National Hospice and Palliative Care Organization searchable database at www.nhpco.org and the Hospice Foundation of America www.hospicefoundation.org are examples of available resources for Hospice collaboration.

Palliative Care and the Chronically Ill Older Adult in the Emergency Department
Older adults with chronic illnesses represent a complex, vulnerable population. Recent literature suggests identifying chronically ill, older adults who may benefit from palliative intervention.[56,76] The typical response of emergency physicians to offer life-prolonging interventions may not be in alignment with goals of this particular aging cohort, and may not provide a satisfactory response to the presenting complaint.[56] Research and clinical protocols[77,78] noted above may be instrumental in providing palliative medicine in response to the presenting complaints of many chronically ill elderly patients presenting to the emergency department.

OBSERVATION MEDICINE IN THE TRANSITIONS OF CARE

The ED observation unit should develop a "care team."

   The "care team" is led by the emergency physician along with nurses, pharmacists, social workers, dieticians, case managers and others. The care team collaborates/verifies information, coordinates care and communicates with others, in order to provide a smooth transition from the ED and OU to the inpatient service or to the patient's medical home/outpatient health care providers.

A standardized ED OU "transition" plan should be developed that has defined components in every transition plan.

   A transition plan is mandatory, whether or not the patient becomes an inpatient or is discharged from the ED OU. The essential parts of the care plan need to be identified. Key elements might include diagnosis, medicines (based on completed medicine reconciliation), current active problems, outpatient services, medical provider/medical home, warning signs if their condition worsens, and who to contact if a problem/concern arises. The ED OU already has standardized protocols and care pathways so this would be a logical extension and easy to adopt without significant expense.

The ED OU should develop specific criteria to be included in every handoff that will be communicated to the next provider.

Key components of handoff communication need to be defined and instituted into everyday practice with ongoing monitoring as part of the performance improvement program.

The ED OU should institute an educational program regarding what is and should be done for a successful transition.

The initiation of standardized training for ED OU personnel (MDs, RNs, midlevel providers, etc.) should be done with continuing education and monitoring to make improvements as necessary.

References
1. Philibert IaSA Jr. The ACGME 2011 Duty Hour Standards: Enhancing Quality of Care, Supervision, and Resident Professional Development, in Accreditation Council for Graduate Medical Education, 2011: Chicago, IL. p. 57-61.
2. Solet DJ, Norvell JM, Rutan GH, et al. Lost in translation: challenges and opportunities in physician-to-physician communication during patient handoffs. *Acad Med*. 2005;80(12):1094-9.
3. Improving Transitions of Care: Hand-off Communications. http://www.centerfortransforminghealthcare.org/assets/4/6/CTH_Hand-off_commun_set_final_2010.pdf%202010%20%5bcited%202012%20August%2030%5d
4. Promes SB. Emergency Medicine Milestones Released, 2011, ACGME, SAEM, ABEM.
5. Patterson ES. Communication strategies from high-reliability organizations: translation is hard work. *Ann Surg*. 2007;245(2):170-2.
6. Patterson ES, Roth EM, Woods DD,et al. Handoff strategies in settings with high consequences for failure: lessons for health care operations. *Int J Qual Health Care*. 2004;16(2):125-32.
7. Foster S, Manser T. The effects of patient handoff characteristics on subsequent care: a systematic review and areas for future research. *Acad Med*. 2012;87(8):1105-24.
8. Nether K. Hand-off Communications. Joint Commission Center for Transforming Healthcare 2009; Project to implement solutions to reduce defective hand-offs].
9. Joint Commission sentinel event statistics as of: June 30, 2009. 2009 [cited 2012 August 30, 2012].
10. Action on Patient Safety- High 5s. http://www.who.int/patientsafety/implementation/solutions/high5s/en/index.html%202012%20%5bcited%202012%20August%2030%5d
11. Cheung DS, Kelly JJ, Beach C,et al. Improving handoffs in the emergency department. *Ann Emerg Med*. 2010;55(2):171-80.
12. Chang VY, Arora VM, Lev-Ari S, et al. Interns overestimate the effectiveness of their hand-off communication. *Pediatrics.* 2010;125(3):491-6.
13. Arora V, Johnson J. Spreading and Sustaining Use of Standardized Handoff Protocols for Residency Tranining, ed. L. Schilling 2009, Oak Brook, IL: Joint Commission Resources.
14. Manser T, Foster S, Gisin S, et al. Assessing the quality of patient handoffs at care transitions. *Qual Saf Health Care*. 2010;19(6):e44.
15. Arora VM, Farnan JM. Care transitions for hospitalized patients. *Med Clin North Am.* 2008;92(2):315-24, viii.
16. Bruce K. Suserud BO, The handover process and triage of ambulance-borne patients: the experiences of emergency nurses. *Nurs Crit Care.* 2005;10(4):201-9.
17. Apker J, Mallak LA, Applegate EB 3rd, et al. Exploring emergency physician-hospitalist handoff interactions: development of the Handoff Communication Assessment. *Ann Emerg Med*. 2010;55(2):161-70.
18. Riesenberg LA, Leitzsch J, Little BW. Systematic review of handoff mnemonics literature. *Am J Med Qual*. 2009;24(3):196-204.

19. Campbell SG, Croskerry P, Bond WF. Profiles in patient safety: A "perfect storm" in the emergency department. *Acad Emerg Med*. 2007;14(8):743-9.
20. Beach C, Croskerry P, Shapiro M. Profiles in patient safety: emergency care transitions. *Acad Emerg Med*. 2003;10(4):364-7.
21. Andrews C. Don't Fumble the Handoff. MAG Mutual Healthcare Risk Manager. 2005. 11(28):1-2.
22. Maughan BC, Lei L, Cydulka RK. ED handoffs: observed practices and communication errors. *Am J Emerg Med*. 2011. 29(5):502-11.
23. Patterson ES Wears RL. Patient handoffs: standardized and reliable measurement tools remain elusive. *Jt Comm J Qual Patient Saf*. 2010;36(2):52-61.
24. Kitch BT, Cooper JB, Zapol WM, et al. Handoffs causing patient harm: a survey of medical and surgical house staff. *Jt Comm J Qual Patient Saf*. 2008;34(10):563-70.
25. Arora V, Johnson J. A model for building a standardized hand-off protocol. *Jt Comm J Qual Patient Saf*. 2006;32(11):646-55.
26. Ye K, McD Taylor D, Knott JC, et al. Handover in the emergency department: deficiencies and adverse effects. *Emerg Med Australas*. 2007;19(5):433-41.
27. Liu SW, Chang Y, Camargo CA Jr, et al. A Mixed-Methods Study of the Quality of Care Provided to Patients Boarding in the Emergency Department: Comparing Emergency Department and Inpatient Responsibility Models. *Med Care Res Rev*. 2012.
28. Liu SW, Chang Y, Weissman JS, et al. An empirical assessment of boarding and quality of care: delays in care among chest pain, pneumonia, and cellulitis patients. *Acad Emerg Med*. 2011;18(12):1339-48.
29. Kessler C, Kutka BM, Badillo C. Consultation in the emergency department: a qualitative analysis and review. *J Emerg Med*. 2012;42(6):704-11.
30. Clark E, Squire S, Heyme A, et al. The PACT Project: improving communication at handover. *Med J Aust*. 2009;190(11 Suppl):S125-7.
31. Farnan JM, Paro JA, Rodriguez RM, et al. Hand-off education and evaluation: piloting the observed simulated hand-off experience (OSHE). *J Gen Intern Med*. 2010;25(2):129-34.
32. Halkerwal M, Dobb G, Ahmed T. Safe Handover: Safe Patients- Guidance on Clinical handover for Clinicians and Managers, A.M. Association, Editor 2006.
33. Johnson JK, Arora VM, Improving clinical handovers: creating local solutions for a global problem. *Qual Saf Health Care*. 2009;18(4):244-5.
34. Schuur JD, Baugh CW, Hess EP, et al. Critical pathways for post–emergency outpatient diagnosis and treatment: Tools to improve the value of emergency care. *Acad Emerg Med*. 2011;18:e52–e63.
35. Katz EB, Carrier ER, Umscheld CA, et al. Comparative effectiveness of care coordination interventions in the emergency department: a systematic review. *Ann Emerg Med*. 2012;60(1):12-23.e1. Epub 2012 Apr 27.
36. Moore C, McGinn T, Halm E. Tying up loose ends discharging patients with unresolved medical issues. *Arch Intern Med*. 2007;167:1305-1311.
37. AHRQ Care Coordination Measures Atlas. Rockville, MD. 2010. http://www.ahrq.gov/qual/careatlas/
38. Diner BM, Carpenter CR, O'Connell T, et al. Graduate medical education and knowledge translation: Role models, information pipelines, and practice change thresholds. *Acad Emerg Med.* 2007;14:1008-1014.
39. Carpenter CR, DesPain B, Keeling T, et al. The six item screener and AD8 for the detection of cognitive impairment in geriatric emergency department patients. *Ann Emerg Med.* 2011;57:653-661.
40. Han JH, Bryce SN, Ely EW, et al. The effect of cognitive impairment on the accuracy of the presenting complaint and discharge instruction comprehension in older emergency department patients. *Ann Emerg Med.* 2011;57:662-671.
41. Engel KG, Heisler M, Smith DM, et al. Patient comprehension of emergency department care and instructions: are patients aware of when they do not understand? *Ann Emerg Med.* 2009;53:454-461.
42. Jolly BT, Scott JL, Feied CF, et al. Functional literacy among emergency department patients: a preliminary study. *Ann Emerg Med*. 1993;22:573-578.

43. Spandorfer JM, Karras DJ, Hughes LA, et al. Comprehension of discharge instructions by patients in an urban emergency department. *Ann Emerg Med*. 1995;25:71-74.

44. Logan PD, Schwab RB, Salomone JA, et al. Patient understanding of emergency department discharge instructions. *South Med J*. 1996;89:770-774.

45. Duffy M, Snyder K. Can ED patients read your patient education materials? *J Emerg Nurs*. 1999;25:294-297.

46. Crane JA. Patient comprehension of doctor-patient communication on discharge from the emergency department. *J Emerg Med*. 1997;15:1-7.

47. Tran TP, Robinson LM, Keebler JR, et al. Health literacy among parents of pediatric patients. *Western J Emerg Med.* 2008;9:130-134.

48. Moskop JC, Sklar DP, Geiderman JM, et al. Emergency department crowding, Part I – concept, causes, and moral consequences. *Ann Emerg Med*. 2009;53:605-611.

49. Collis J. Adverse effects of overcrowding on patient experience and care. *Emerg Nurs.* 2010;18:34-39.

50. McCusker J, Healey E, Bellavance F, et al. Predictors of repeat emergency department visits by elders. *Acad Emerg Med*. 1997;4:581-588.

51. McCusker J, Verdon J, Tousignant P, et al. Rapid emergency department intervention for older people reduces risk of functional decline: results of a multicenter randomized trial. *J Am Geriatr Soc*. 2001;49:1272-1281.

52. DiBari, M, Salvi F, Roberts AT, et al. Prognostic stratification of elderly patients in the emergency department: a comparison between the "Identification of Seniors at Risk" and the "Silver Code." J *Gerontol A Biol Sci Med Sci*. 2012;67:544-550.

53. Buurman BM, van den Berg W, Korevaar JC, et al. Risk for poor outcomes in older patients discharged from an emergency department: feasibility of four screening instruments. *Eur J Emerg Med*. 2011;18:215-220.

54. Nelson JM, Carrington JM. Transitioning the older adult in the ambulatory care setting. *AORN J.* 2011;94:348-358.

55. Kass LR. Toward a more natural science: biology of human affairs. The Free Press. New York: New York; 1985, p. 32.

56. Quest T, Asplin B, Cairns C, et al. Research priorities for palliative and end-of-life care in the emergency setting. *Acad Emerg Med*. 2011;18:e70-e76.

57. Grudzen C, Richardson L, Morrison M, et al. Palliative care needs of seriously ill, older adults presenting to the emergency department. *Acad Emerg Med.* 2010;17:1253-1257.

58. Smith A, Fisher J, Schnoberg M, et al. Am I doing the right thing? Provider perspectives on improving palliative care in the emergency department. *Ann Emerg Med.* 2009;54:86-94.

59. Ausband S, March J, Brown L. National prevalence of palliative care protocols in emergency medical services. *Prehosp Emerg Care.* 2002;6:36-40.

60. The SUPPORT Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients: The study to understand prognoses and preferences for outcomes and risks of treatments (SUPPORT). *JAMA.* 1995; 274(20):1591-98.

61. Grudzen CR, Stone S, Morrison S. The palliative care model for emergency department patients with advanced illness. *J Palliat Med.* 2011;14:945-950.

62. Lamba S. Early goal-directed palliative therapy in the emergency department: A step to move palliative care upstream. *J Palliat Med.* 2009;12:767.

63. Penrod J, Deb P, Dellenbaugh C,et al. Hospital-based palliative care consultation: Effects on hospital cost. *J Palliat Med.* 2010;13:973-977.

64. Stone S. Emergency department research in palliative care: Challenges in recruitment. *J Palliat Med.* 2009;12:867-868.

65. Meier D, Beresford L. Fast response is key to partnering with the emergency department. *J Palliat Med.* 2007;10:641-645.

66. Beemath A, Zalenski R. Palliative emergency medicine: Resuscitating comfort care? *Ann Emerg Med.* 2009;54:103-104.
67. Penrod J, Deb P, Luhrs C, et al. Cost and utilization outcomes of patients receiving hospital-based palliative care consultation. *J Palliat Med.* 2006;9:855-860.
68. Quest T, Marco C, Derse A. Hospice and palliative medicine: New subspecialty, new opportunities. *Ann Emerg Med.* 2009;54:94-101.
69. U.S. Department of Health and Human Services. Medicare and Medicaid Programs: Hospice conditions of participation; final rule 2008;73(109):32088-32220. Retrieved August 20, 2011 from http://edocket.access.gpo.gov/2008/pdf/08-1305.pdf.
70. World Health Organization. Definition of Palliative Care. Retrieved August 15, 2011 from http://www.who.int/cancer/palliative/definition/en/.
71. Grudzen C, Richardson L, Hopper S, et al. Does palliative care have a future in the emergency department? Discussions with attending emergency physicians. *J Pain Symptom Manage.* 2012;43:1-9.
72. Kenen J. Palliative care in the emergency department. *Ann Emerg Med.* 2010;56:17A-19A.
73. Chan G, Malone R. End-of-life and palliative care in the emergency department: A call for research, education, policy and improved practice in this frontier area. *J Emerg Nurs.* 2006;32:101-103.
74. Reid C. Palliative care is not the same as end of life care. *BMJ.* 2011;342:1.
75. Community Hospice Emergency Department Focused Care at Shands Jacksonville. Retrieved March 22, 2012 from http://ipal-live.capc.stackop.com/downloads/integrating-hospice-and-palliative-care-service-in-the-ed-saem.pdf.
76. O'Mahony S, Blank A, Simpson J, et al. Preliminary report of a palliative care and case management project in an emergency department for chronically ill elderly patients. *J Urban Health.* 2008;85:443-451.
77. "Improving Palliative Care in Emergency Medicine" retrieved March 11, 2012 from http://www.capc.org/ipal/ipal-em.
78. Education in Palliative and End-of-Life Care for Emergency Medicine retrieved May 2, 2012 from http://www.epec.net/epec.em.php.