

# UCLA

## UCLA Previously Published Works

### Title

Veteran knowledge, perceptions, and receipt of care following visits to VA emergency departments for ambulatory care sensitive conditions

### Permalink

<https://escholarship.org/uc/item/9133v8fn>

### Journal

Academic Emergency Medicine, 30(4)

### ISSN

1069-6563

### Authors

Cordasco, Kristina M  
Gable, Alicia R  
Tan, Gracielle J  
[et al.](#)

### Publication Date

2023-04-01

### DOI

10.1111/acem.14649

Peer reviewed



## ORIGINAL ARTICLE

# Veteran knowledge, perceptions, and receipt of care following visits to VA emergency departments for ambulatory care sensitive conditions

Kristina M. Cordasco MD, MPH, MSHS<sup>1,2,3</sup>  | Alicia R. Gable MPH<sup>1</sup> | Gracielle J. Tan MD<sup>1</sup> | Anita H. Yuan PhD<sup>1</sup> | Kathleen Yip MD<sup>2,4</sup> | Mana Khafaf MD<sup>2,3</sup> | Ron D. Hays PhD<sup>3,5</sup> | Jessica P. Faiz MD, MSHPM<sup>1,6</sup> | Neetu Chawla PhD<sup>1</sup> | David A. Ganz MD, PhD<sup>1,2,3,5</sup>

<sup>1</sup>Center for the Study of Healthcare Innovation, Implementation & Policy (CSHIIP), VA Greater Los Angeles Healthcare System, Los Angeles, California, USA

<sup>2</sup>Department of Medicine, VA Greater Los Angeles Healthcare System, Los Angeles, California, USA

<sup>3</sup>Department of Medicine, David Geffen School of Medicine at the University of California, Los Angeles, Los Angeles, California, USA

<sup>4</sup>Department of Emergency Medicine, David Geffen School of Medicine at the University of California, Los Angeles, Los Angeles, California, USA

<sup>5</sup>RAND Corporation, Santa Monica, California, USA

<sup>6</sup>National Clinician Scholars Program, University of California, Los Angeles, Los Angeles, California, USA

## Correspondence

Kristina M. Cordasco, Center for the Study of Healthcare Innovation, Implementation & Policy (CSHIIP), VA Greater Los Angeles Healthcare System, Los Angeles, CA 90073, USA.  
Email: [kristina.cordasco@va.gov](mailto:kristina.cordasco@va.gov)

## Funding information

This work was funded by the VA Health Services Research and Development (# PPO 18-258).

## Abstract

**Objective:** Receipt of follow-up care after emergency department (ED) visits for chronic ambulatory care sensitive conditions (ACSCs)—asthma, chronic obstructive pulmonary disease, heart failure, diabetes, and/or hypertension—is crucial. We assessed Veterans' follow-up care knowledge, perceptions, and receipt of care after visits to Veterans Health Administration (VA) EDs for chronic ACSCs.

**Methods:** Using explanatory sequential mixed methods, we interviewed Veterans with follow-up care needs after ACSC-related ED visits, and manually reviewed ED notes, abstracting interviewees' documented follow-up needs and care received.

**Results:** We interviewed and reviewed ED notes of 35 Veterans, 12–27 (mean 19) days after ED visits. Follow-up care was completely received/scheduled in 20, partially received/scheduled in eight, and not received in seven Veterans. Among those who received care, it was received within specified time frames half the time. However, interviewees often did not recall these time frames or reported them to be longer than specified in the ED notes. Veterans who had not yet received or scheduled follow-up care commonly did not recall follow-up care instructions, believed that they did not need this care since they were not currently having symptoms, or thought that such care would be difficult to obtain due to appointment unavailability and/or difficulties communicating with follow-up care providers. Among the 28 Veterans in whom all or some follow-up care had been received/scheduled, for 25 cases VA staff reached out to the Veteran or the appointment was scheduled prior to or during the ED visit.

**Conclusions:** VA should prioritize implementing processes for EDs to efficiently communicate Veterans' needs to follow-up care providers and systems for reaching out to Veterans and/or arranging for care prior to Veterans leaving the ED. VA should also enhance practices using multimodal approaches for educating Veterans about

Supervising Editor: Dr. Michael Ward

The views expressed are solely those of the authors and do not necessarily represent the views of the Department of Veterans Affairs or the U.S. Government.

© 2022 Society for Academic Emergency Medicine. This article has been contributed to by U.S. Government employees and their work is in the public domain in the USA.

recommended ED follow-up care and improve mechanisms for Veterans to communicate with follow-up care providers.

## INTRODUCTION

Poor communication and coordination across care transitions lead to medical errors, adverse clinical outcomes, inefficient care, and less favorable patient experiences. Discharges from an emergency department (ED) to home (“treat-and-release” visits)<sup>1</sup> are vulnerable to communication and coordination deficiencies, leading to patients not getting needed follow-up care.<sup>2</sup> Not receiving appropriate follow-up care after ED visits increases the likelihood of patients having adverse outcomes, including ED revisits and hospitalizations.<sup>3-5</sup> Although coordinating transitions in care has received increased attention, much of the focus to-date has been on “handoffs” between providers during shift changes and care coordination following hospitalizations.<sup>6</sup> However, inadequate follow-up care after ED visits and deficits in communication between ED and follow-up care providers are common and worthy of attention.<sup>7</sup> Although improving post-ED care has been prioritized by several commissions, accreditors, and funders,<sup>2,8-11</sup> there remains a relative paucity of evidence-based practices for reducing care fragmentation across the ED treat-and-release transition; further study and intervention development are needed.<sup>2,12</sup>

VA patients, who are generally older and have more complex medical histories than the general population, may have even greater care coordination needs following ED visits.<sup>1,13</sup> Concordantly, the VA Directive for Emergency Medicine (1101.05) emphasizes the importance of VA ED discharge transitions, stating that “a means of providing appropriate follow-up for patients seen and treated in the ED/Urgent Care Clinics must be available.”<sup>14</sup> However, the extent to which existing resources and mechanisms meet Veterans' post-ED care needs is unknown. To address this knowledge gap, and lay foundation for intervention development and prioritization in VA, we assessed Veteran knowledge, perceptions, and receipt of care following VA ED visits. We focused on Veterans with ED visits for chronic ambulatory care sensitive conditions (ACSCs)—asthma, chronic obstructive pulmonary disease (COPD), heart failure, diabetes, and/or hypertension—as individuals with chronic ACSCs are particularly vulnerable to ED discharge communication and coordination failures, given frequent ED medication changes and post-ED follow-up care needs.<sup>15</sup>

## METHODS

### Study design

We used an explanatory sequential mixed-methods design, integrating interview and electronic health record (EHR) data, using principles of grounded theory.<sup>16</sup> We conducted semistructured telephone interviews with Veterans who had recent visits for one or more

chronic ACSCs to one of eight VA EDs in Veterans Integrated Service Network (VISN) 22. Interviews were informed by a pre-interview EHR review identifying each participant's documented follow-up care need(s). Following the interviews, we performed a second EHR review to assess participants' follow-up care receipt, which provided further context for interpreting interviewee responses. Study procedures were approved by the VA Greater Los Angeles Institutional Review Board.

### Setting

VA VISN 22 serves a racially and ethnically diverse Veteran population,<sup>17</sup> spanning urban and rural settings in Southern California, Arizona, and New Mexico. Within VISN 22 there are eight “health care systems” (HCS), with each HCS consisting of a VA medical center (VAMC), with primary, specialty, emergency and hospital care services, as well as outlying “community-based outpatient clinics” (CBOCs), which have primary care services. VA primary care uses a patient-centered medical home model, in which most Veterans are assigned to a “patient-aligned care team” (PACT) consisting of a primary care provider (PCP), registered nurse care manager, licensed vocational nurse, and administrative support personnel.<sup>18</sup> The majority of specialty care services are located at the VAMC, with selected specialty services also available at some CBOCs. Primary and specialty care, as well as hospital and emergency care, are available to all healthcare-eligible Veterans; some Veterans will have a copayment for care based on their income and whether they have a service-connected disability.

### Screening and recruitment

Using administrative data from VA's Corporate Data Warehouse (CDW), accmatics and Computing Infrastructure (VINCI),<sup>19</sup> each week from February 23 to March 7 and August 23 to October 24, 2020, we randomly selected 20–30 Veterans who had a VISN 22 VA ED visit in the prior week, no VA hospitalization on the same or following day, and an International Classification of Diseases, Tenth Revision (ICD-10) code (in any diagnostic position) indicating a chronic ACSC. Screening and recruitment procedures were interrupted (performed in two time periods) due to disruptions in follow-up care processes and availability during the early COVID-19 pandemic. We estimated that a total of 35 interviewees would provide thematic saturation across Veterans who did and did not receive follow-up care. To ensure balanced representation across the chronic ACSCs, which may have differing follow-up care needs, we used quota sampling aiming to recruit seven Veterans per ACSC. For each randomly selected ED

visit, we reviewed ED notes and excluded visits if (1) there was no care for an ACSC documented; (2) no follow-up care need was specified; (3) the visit was via telehealth; (4) there was documentation (by ED providers or staff) that the Veteran was confused or had a history of cognitive impairment; (5) the Veteran was transferred to another ED, hospital, or institution (e.g., nursing facility or residential substance use rehabilitation); (6) the Veteran left against medical advice; or (7) the Veteran was on hospice. We further excluded visits for Veterans we had previously attempted to recruit for this study.

We sent Veterans whose visits met these criteria a letter and information sheet describing the study, their voluntary participation, and how to opt out of further contact. Then, 11 to 30 days following their ED visits, we called those who had not opted out to invite them to participate. Upon attempted contact, we excluded Veterans whose telephone numbers were not in service, who were potentially confused (i.e., responses during the informed consent process suggested they did not comprehend), who were physically unable to talk on the phone (e.g., secondary to hearing impairment), or who were unable to provide informed consent in English. All participants were mailed a \$10 Veterans Canteen Service voucher.

### Preinterview EHR review

Concurrent with participant screening, all EHR notes associated with ED visits (provider, nurse, social work, etc.), including discharge instructions, were reviewed by a physician researcher (KMC) to ascertain documented reason(s) for the ED visit, verify and supplement the information from the ICD-10 codes, and record follow-up care needs. All follow-up care needs—for ACSCs as well as other conditions—were included.

### Interviews

Semistructured interviews (conducted by KMC, ARG, GJT) were used to elicit Veterans' knowledge and perceptions related to discharge communication and care coordination across the ED to home transition, as well as Veterans' receipt of, and care coordination experiences with post-ED VA and non-VA care. We based our interview guide (see [Supporting Information](#)) on a 2014 Agency for Healthcare Research and Quality environmental scan report that conceptualizes the ED discharge transition as consisting of three interwoven processes: communicating and educating patients, supporting post-ED care, and coordinating care with other providers and services.<sup>20</sup> Information from the preinterview EHR review was used to guide interview prompts so that, after open-ended questions about follow-up care needs, Veterans were asked specifically about needs documented in their ED notes. We also asked Veterans to comment about how well they had understood the ED instructions for follow-up care appointments.

### Postinterview EHR review and demographics

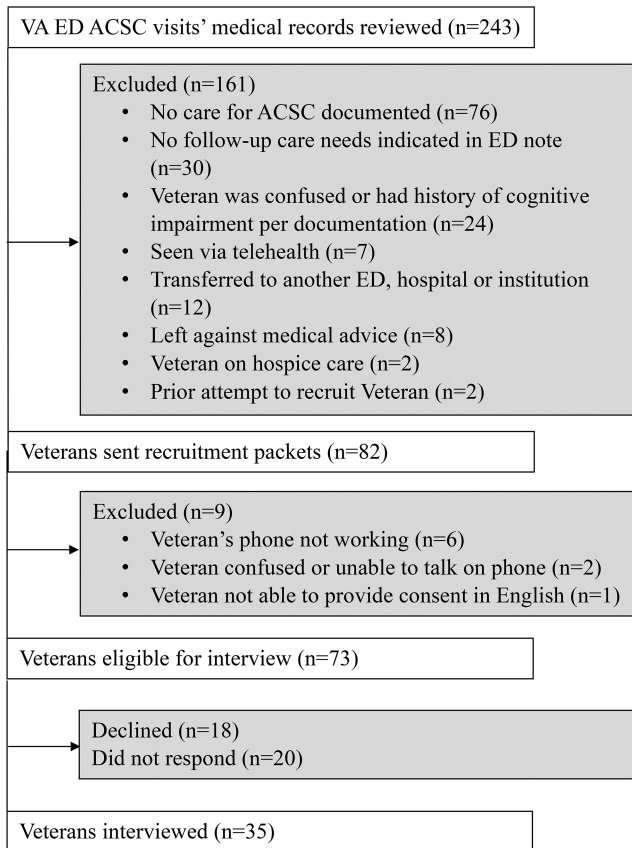
After the interviews were completed, a physician researcher (KMC) reviewed EHR notes for each interviewed Veteran ascertaining if there was evidence in the EHR of receiving follow-up care related to their ED visit and if received, who initiated arranging for that care. Interviewee demographics were obtained from VA's CDW, accessed through VINCI.<sup>19</sup>

### Data analysis

All interviews were audio-recorded and professionally transcribed. We then used rapid qualitative analysis methodology, in which each interview is summarized using a structured template, describing interviewee responses to each topic; summaries are organized into a two-by-two matrix, facilitating identification of themes across interviews and topics.<sup>21-23</sup> Using a template based on our interview guide, three members of the analytic team (KMC, ARG, GJT) separately summarized three transcripts and compared summaries across team members, assessing for completeness and consistency. The remaining 32 transcripts were then summarized by one member of the analytic team (ARG or GJT). A physician researcher (KMC) then reviewed transcripts for potential edits and additions to each summary; edits were discussed with the initial analyst so that a final summary was determined by consensus. Matrices created from these interviews were integrated with data from the pre- and postinterview EHR data; EHR data were combined with Veterans' reports to determine whether follow-up care was received. In a serial multidisciplinary team-based analytic process, conducted via videoconference and electronic mail, all team members reviewed and discussed matrices to identify and describe themes. Team members had a range of clinical and methodologic expertise, including emergency medicine (KY, JPF), internal medicine/primary care (KMC, MK, DAG), medical record review (KMC), and qualitative/mixed methods (KMC, ARG, RDH, NC). We also used Microsoft Excel to examine demographics and compute counts of follow-up care receipt and arrangements.

## RESULTS

Among the randomly selected 243 ED visits with ICD-10 codes indicating an ACSC, 161 were excluded ([Figure 1](#)); the most common reasons for exclusion were no care for an ACSC documented ( $n = 76$ ), no follow-up care needs indicated in the ED note ( $n = 30$ ), and the Veteran was confused or had a history of cognitive impairment ( $n = 24$ ). In total, 73 Veterans were found to be eligible. Of these, 18 Veterans declined to participate, 20 could not be contacted and 35 (48%) were interviewed. Seven interviews were conducted March 19–23, 2020, with the remaining 28 interviews conducted September 9–November 4, 2020. Interviews occurred 12–27 (mean 19)



**FIGURE 1** Numbers of visits/Veterans screened, excluded, invited and interviewed. ACSC -ambulatory care sensitive condition.

days after ED visits. Interviews lasted a mean of 18 (range 7–37) minutes.

Interviewees were predominantly male and 65 years of age or older; 60% were non-Hispanic White (Table 1). Although quota sampling was performed, seven participants had ED visits addressing more than one ACSC, and therefore there were slightly more visits for hypertension, COPD, and diabetes. Cooccurring non-ACSC issues were documented as being addressed in 16 visits, with one visit having two and another having three non-ACSC conditions addressed in addition to ACSC conditions. Visits in all eight VISN 22 EDs were represented in the sample, ranging from one to seven visits per ED.

As shown in Table 2, ED notes for most interviewed Veterans ( $n = 33$ ) specified that the Veteran needed primary care follow-up; notes less commonly specified specialty care follow-up ( $n = 13$ ), tests to be performed ( $n = 4$ ), and/or results to be obtained ( $n = 2$ ). Fifteen Veterans had two follow-up care needs (e.g., primary and specialty care) and one Veteran had three needs (e.g., primary and specialty care with tests). At the time of their interviews, 20 of the 35 participants had received, or had appointments for, all follow-up care that had been specified in their EHRs. Eight additional Veterans had received some, but not all, specified care and seven Veterans had not received (nor had appointments for) any of the specified care. Themes that arose from interviews are shown in Figure 2.

**TABLE 1** Interviewee ( $n = 35$ ) demographic and clinical characteristics

	n (%)
Age (years)	
40–54	5 (14)
55–64	8 (23)
65–74	16 (46)
75+	6 (17)
Gender	
Male	30 (85)
Female	5 (15)
Race/ethnicity	
Non-Hispanic White	21 (60)
Non-Hispanic Black	5 (14)
Hispanic	6 (17)
Other/unknown	3 (9)
ED visit condition <sup>a,b</sup>	
Asthma	7 (20)
COPD	9 (26)
Diabetes	9 (26)
Heart failure	7 (20)
Hypertension	10 (29)
Other <sup>c</sup>	19 (54)

Abbreviations: ACSC, ambulatory care-sensitive condition; COPD, chronic obstructive pulmonary disease.

<sup>a</sup>Per electronic health record review.

<sup>b</sup>Seven Veterans had care for two ACSCs.

<sup>c</sup>Cooccurring with ACSC.

**TABLE 2** ED follow-up care needs and receipt

Care need <sup>a</sup>	n (%)
Primary care	33 (94)
Specialty care	15 (37)
Tests to be performed	4 (11)
Test results to be obtained	2 (6)
Care received/scheduled <sup>b</sup>	
Completely received/scheduled	20 (57)
Partially received/scheduled	8 (23)
Not received/scheduled	7 (20)
Timeliness of care <sup>c</sup>	
Within time frame specified	13 (46)
Not within time frame specified	9 (26)
No time frame specified	6 (21)

<sup>a</sup>Fifteen Veterans had two care needs; one Veteran had three needs.

<sup>b</sup>Received or scheduled by the day of interview.

<sup>c</sup>Among the 28 with care completely or partially received.

### Veterans who received follow-up care

Among the 28 Veterans in whom all or some follow-up care had been received or scheduled, in most ( $n = 25$ ) cases VA staff had reached

**Veterans who received follow-up care**

- Commonly described VA staff reaching out to them
- Most reported receiving post-ED follow-up care instructions

**Veterans who did not receive follow-up care**

- Did not recall receiving specific post-ED follow-up care instructions
- Expressed frustrations with accessing follow-up care
- Were concerned with COVID-19 exposure

**Recall of follow-up care (among all Veterans)**

- Most felt confident in knowledge about follow-up care needs
- Veterans expressing uncertainty attributed this to illness or ED context

**FIGURE 2** Themes that arose from interviews.

out to the Veterans after their ED visits to provide or arrange for follow-up care or their appointments had been scheduled prior to or during their ED visits. For example, one Veteran had received follow-up care from both his PCP and his pulmonologist, both of which were initiated by the providers. He relayed:

[My PCP] heard about [the ED visit] and called me ... She made sure I was taking my medication and reordered some medicine I was running low on ... [My PCP and pulmonologist] seem to know everything ... They have great communication. (71-year-old male Veteran with COPD)

One Veteran, who needed follow-up care with cardiology, endocrinology, and primary care, reported that the specialist appointments were scheduled while he was in the ED and his primary care nurse called him right after he left. He reported being very clear about the details of the care he needed:

I was clear. I knew I had to see the cardiologist and I knew I had to see the diabetes doctor. And when I saw the diabetes doctor, he told me what my sugar levels were when I was in the ER and that the referral came, I guess from the ER. (67-year-old male Veteran with diabetes and heart failure)

Some Veterans who received their specified follow-up care were not aware that they needed this care until VA staff reached out to them. For example, one patient whose ED notes indicated that he needed follow-up with cardiology reported:

I didn't know I was gonna have an appointment until they called me the next day—I think it was the next day—and told me that I had an appointment. (79-year-old male Veteran with heart failure)

All but one interviewee reported that the entirety of their follow-up care was received within VA.

### Veterans who did not receive follow-up care

The Veterans who had neither received, nor scheduled, any of the specified care (from VA or non-VA providers), and those who had

received partial care only, did not recall receiving instructions about needing this care, believed that they did not need it since they were not currently having symptoms, and/or thought that such care would be difficult to obtain due to lack of appointment availability. A Veteran whose ED notes indicated that he was instructed to follow up with primary care had not yet done so, reporting that he had received instruction to follow-up if “things did not improve.” He reported that he had not yet called to arrange for this care because he “was going to wait and see how it played out another couple of weeks.” Another Veteran described how she is always told to follow up with primary care after ED visits, but she does not do so because she perceives it as being a generic, rather than specific, instruction (“because they always do”) and was frustrated by difficulties communicating with, and lack of access to, her primary care team:

They'll say ... “Now follow up with your normal doctor.” I didn't follow up with my doctor because ... to tell you the truth, it's hard to get into to my normal doctor place .... It's very frustrating ... I just didn't feel like going through that. (65-year-old female Veteran with asthma)

Expressions of frustration regarding communicating with and accessing primary care were common among those who had not received primary care follow-up. In addition, a few Veterans expressed that they did not think that their PCPs could meet their care needs. One reported that he preferred to obtain care directly from a specialist for his advanced asthma and another reported that he intended to return to the ED if he needed additional care, since primary care usually refers him to the ED:

For everything serious my primary care doctor sends me to the emergency room anyway. So normally if I have any problems breathing and coughing, I pretty much go to the emergency room myself and get the antibiotics and then head on home. (71-year-old male Veteran with COPD)

Concerns about COVID-19 exposure risks and frustrations about providers' use of virtual care (rather than in-person visits) were named by a few Veterans as additional barriers to receiving follow-up care. One Veteran relayed:

I was to have an appointment, I think it was two weeks later .... I'm not sure who it was with. But I woke up that day and I did not feel good and I did not feel that it was safe for me to go to the VA at that time with the COVID deal that's going on. (72-year-old male Veteran with COPD)

### Veteran recall of follow-up care instructions

Time frames for follow-up care were specified in ED notes for 26 Veterans. Specified time frames ranged from 2 to 10 days.

Interviewees often did not recall these time frames or reported them to be longer than specified. Among the 28 Veterans who received some or all the specified follow-up care, 13 received this care within the timeframe specified, nine received care or had it scheduled for beyond this time frame, and in six no time frame was specified (Table 2).

Most Veterans, including those who did not recall receiving specific follow-up care instructions, indicated that they perceived themselves as being very clear about their ED follow-up care instructions. Some Veterans explained that they felt confident in their knowledge due, at least in part, to having experienced multiple ED visits for their chronic conditions. One such Veteran, who had not gotten follow-up care and did not recall that he had been told to do so, stated that:

Since I've been having the chronic asthma, I basically know what to do after I get out of there. It's always basically the same thing. (74-year-old male Veteran with asthma)

A few Veterans attributed their lack of knowledge about follow-up care to their own limitations or those of the situation or their illness. For example, a Veteran who did not recall what he was told about follow-up care explained:

I don't remember what we talked about. I wasn't feelin' good. That's why I was there and I don't remember. (79-year-old male Veteran with heart failure)

For all but one Veteran, the EHR indicated that the Veteran received written discharge instructions. However, seven Veterans did not recall getting any written instructions and another six indicated that they had not looked at their discharge instructions or had done so very briefly.

Veterans with multiple ED visits and/or other frequent contact with providers generally had difficulty describing events and instructions provided to them at a particular visit, describing instead what they were usually told and/or the events in their care in the general time period of the visit, commingling their recollection of events and instructions from their ED visit with those from other VA clinical encounters.

## DISCUSSION

Among Veterans with chronic ACSCs and an ED visit with documented follow-up care needs, more than half received the care that was specified in their ED notes. However, a notable minority of Veterans did not receive any, or received only a portion, of the follow-up care specified in the ED notes for their visits. Among those who did get follow-up care, they received this care within the time frame specified about half the time.

Many Veterans either did not recall receiving follow-up care instructions and/or recalled them differently than what was specified.

This finding is consistent with previous studies in non-VA settings showing that it is not uncommon for patients to demonstrate limited comprehension of instructions for ED follow-up care, even when assessed immediately after ED visits.<sup>24-26</sup> Further, Engel et al.<sup>25</sup> showed that patients being discharged from EDs generally do not perceive their own comprehension deficits, with less than one-third of studied patients indicating awareness that they did not understand their discharge instructions. Our study similarly found that Veterans who lacked knowledge about need or time frame for follow-up care often did not perceive themselves as having a knowledge deficit. This finding suggests that it is unlikely that Veterans will request follow-up care instructions if they are not clearly and proactively provided.

Importantly, although documentation in the ED notes conveyed that ED providers intended for Veterans to receive follow-up care, it is unknown the extent to which or how this recommendation was relayed to Veterans. Veterans not recalling receiving this recommendation indicates that, at the very least, communication was not adequate. These findings suggest the need to develop and/or implement practices for educating Veterans about optimal ACSC care, including clearly and routinely communicating the need for timely follow-up care after an ED visit. Although educating patients when they are in the ED is challenging,<sup>20,27</sup> evidence-based interventions for improving patients' understanding of ED discharge instructions have been developed.<sup>28,29</sup> For example, instructions must not only convey follow-up care needs, but also reasons; patients knowing the reason for follow-up care is associated with higher receipt of care.<sup>30</sup> Further, using the teach-back method, in which the patient repeats back the instructions they have been given, has been shown to improve patient recall of follow-up care instructions.<sup>31</sup> Other interventions have specifically targeted post-ED chronic ACSC management;<sup>32,33</sup> for example, a systematic review revealed that ED educational interventions for patients with asthma are associated with greater likelihood of receiving ED follow-up care.<sup>33</sup> Our findings, paired with this evidence, suggest that VA ED leaders should further examine and seek to improve upon their practices for discharge education.

Our study findings indicate that providing written discharge instructions is likely insufficient to enhance education for Veterans about their VA ED follow-up care. This finding echoes that of Gettel et al.,<sup>12</sup> who interviewed older non-Veterans about their discharge experiences and found that lengthy ED discharge instructions were not helpful. Improving the quality of written instructions, through individualization,<sup>34</sup> illustrations,<sup>35,36</sup> and simplifications appropriate for patients at all levels of health literacy,<sup>37,38</sup> may make them more useful. However, using a multimodal approach for ED discharge education (e.g., verbal education combined with written instruction), has been shown to be better than using a single modality.<sup>39,40</sup>

Beyond the need for VA EDs to enhance patient education about follow-up care recommendations, our interviews revealed that some Veterans perceive access challenges as a barrier to obtaining follow-up care. Over the past decade, VA has implemented a series of evidence-based approaches for managing access to care.<sup>41</sup> However, despite this progress, the Veterans we interviewed continued to

perceive challenges in communicating with their providers regarding follow-up appointments and obtaining access to care, which discouraged them from seeking post-ED care. Although it is unknown to what degree our interviewees' perceptions reflect current practices, or linger from experiences prior to VA's access improvements, it is crucial that VA ensures that Veterans can reliably and easily obtain the care they need after an ED visit and that Veterans are aware of how to obtain this care.

Although our study revealed communication and access barriers, it is highly notable that a common facilitator to receiving post-ED follow-up care was VA staff reaching out to Veterans to arrange for and/or provide care. This outreach overcame gaps in Veterans' knowledge about the follow-up care they needed and may have also overcome Veterans' perceptions or concerns about being able to access care. This finding is consistent with studies in non-VA settings showing positive outcomes (e.g., patient satisfaction, adherence to follow-up care) being associated with post-ED follow-up phone calls.<sup>20,29</sup> Within VA, Hastings and colleagues<sup>42</sup> tested an intervention using primary care-based nurse telephone support following VA ED visits for high-risk Veterans and showed higher rates of primary care follow-up among those who received this support. Six VA EDs have piloted the "Supporting Community Outpatient, Urgent Care & Telehealth Services (SCOUTS)" program in which technicians provide post-ED visits for high-risk older Veterans, in the Veterans' home or via telehealth.<sup>43</sup> Separately, three VA EDs use the ED-PACT tool, an EHR-based message, triggered by ED physicians for patients with specific or urgent post-ED care needs, prompting PACT nurses to call Veterans to coordinate post-ED care.<sup>44</sup> Similarly, some VA EDs are using VA's ED-RAC innovation, which allows scheduling of follow-up care appointments with specialists prior to Veterans leaving the ED,<sup>45</sup> an evidence-based practice that has also been shown to improve patients' receipt of follow-up care.<sup>29,46</sup> Both the ED-PACT Tool and ED-RAC were in use at one of the eight VA EDs targeted for this study. Our findings suggest that arrangements such as these, which feature VA staff reaching out to the Veteran post-ED and/or arranging for care prior to the Veteran leaving the ED, are key ingredients for Veterans receiving post-ED follow-up care for ACSCs and should be implemented across all VA EDs.

While there is evidence in support of the potential value in implementing more intensive approaches for improving ED follow-up care receipt,<sup>20,47</sup> there are cost and logistic barriers to their widespread use in VA. To facilitate targeting such intensive approaches, risk assessments have been developed to aid in identifying older patients at higher risk for adverse outcomes after ED visits,<sup>48</sup> however, their predictive validities are modest.<sup>48,49</sup> Early work is promising in using predictive analytics to improve identification of high-risk patients.<sup>50</sup> Investments should be made in furthering development of these tools, and their application to VA patients, as well as assessing for the relative effectiveness, and cost-effectiveness, of arrangements for communicating and coordinating post-ED care for different Veteran populations.

Separately, in nearly one-fifth of the ED visits reviewed, notes did not specify that follow-up care was needed. Effective use of

primary care, with specialty consultation when needed, is vital for optimal management of chronic ACSCs—preventing exacerbations, and therefore ED visits and hospitalizations,<sup>51</sup> as well as disease progression and long-term complications.<sup>52</sup> An ACSC ED visit, signaling an acute exacerbation or need, should serve as a prompt that follow-up primary and/or specialty care is indicated to assess for resolution of the acute need and whether additional care is needed to prevent additional exacerbations. Even low-acuity ACSC ED visits (e.g., a request for a chronic ACSC medication refill) may be viewed as an indication that the Veteran had an unmet ambulatory care need. The importance of this follow-up care is further underscored by the frequency with which our interviewees received ED care for multiple conditions, including seven receiving care for more than one ACSC, which is consistent with previous studies showing that VA ED users have complex medical histories and enhanced care coordination needs.<sup>1,15</sup> It is not known how often Veterans received recommendations for follow-up care without this being documented in the EHR; however, a recommendation for follow-up care should be universal for ACSC-related ED visits, although the optimal time frame for this follow-up care may vary based on patients' needs.

Our interviews also revealed challenges with using patient report in isolation to assess discrete health care events among patients with multiple health care system encounters. Veterans who had frequent contact with providers prior to and following their ED visit had significantly more difficulty recalling the details of the ED visit we were asking about. This is notable because patient experiences and perceptions of care are increasingly used to assess health care performance and quality, including emergency care through the ED Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey.<sup>53</sup> This instrument, shown to be reliable and valid when administered 2–35 days following ED visits, contains two questions about follow-up care asking (a) whether ED staff talked to the respondent about follow-up care and (b) whether ED staff provided the respondent with information about how to get needed follow-up care. Our interviews suggest that using patient report to obtain detailed information about follow-up care instructions may be challenging if patients are being asked to recall these details after 2–3 weeks have passed and they have had multiple interactions with the health care system.

## LIMITATIONS

It is important to note the timing of this study in context of the COVID-19 pandemic. In addition to COVID exposure and barriers related to using telehealth noted by our interviewees, during this time Veterans' family members were generally not allowed to accompany them into the ED in the interest of decreasing exposure risks for these family members, other patients, and ED staff; studies have shown that caregiver support and characteristics are influential in health care communications and outcomes for older adults,<sup>54,55</sup> and exclusion of caregivers from the ED may have exacerbated inadequate follow-up care communications. Further, due to the



COVID-19 pandemic, health care providers would have been wearing masks, which is a communication barrier for patients with hearing impairment.<sup>56</sup>

This study was also limited by excluding Veterans with a history of cognitive impairment, including those with mild impairment who may still be managing their own health care. These Veterans are likely to be even more vulnerable to not recalling instructions; post-ED health system outreach may be even more important for these individuals. We also excluded Veterans discharged to nursing facilities, another transition across which poor communication is common.<sup>57</sup> Future efforts should focus on these vulnerable populations as their needs, and strategies for meeting these needs, may be unique.

Another limitation of this study is that it was not designed to assess potential differences in Veteran knowledge, experiences, or care receipt by social and medical risk factors for experiencing ED discharge process failures. Inequities in Veterans' care access and utilization associated with social and medical factors have been well documented.<sup>58</sup> Social risk factors for poor outcomes associated with the ED discharge process include homelessness, lower income, limited health literacy, and minority race and ethnicity (i.e., effects of interpersonal and structural racism), while medical risk factors include substance dependence, psychiatric illness, physical and/or cognitive impairment, and advanced age.<sup>20</sup> Although Veterans with most (but not all) of these characteristics were represented in our interviewees, understanding how these factors interact with Veteran knowledge, experiences, and care receipt for ED follow-up care is important for considering potential tailoring and/or enhanced interventions for these subpopulations with even higher vulnerability.

Finally, in addition to potential recall bias, our findings, like many that use patient report, may be subject to social desirability biases influencing interviewees' responses. Further, about half of our potential participants did not respond or declined to participate in interviews; we do not have information on the extent to which these Veterans' post-ED care experiences may have differed from those of our participants.

## CONCLUSIONS

Ensuring receipt of needed post-ED follow-up care is integral to patient safety, preventing unnecessary ED revisits and delivering patient-centered care. As an integrated health care system, optimization of communication and coordination across providers (e.g., ED and primary care), and between providers and patients, should be a VA priority. Despite being eligible for comprehensive follow-up care, in an integrated health care system using a common EHR and a robust patient-centered medical home model, Veterans are experiencing barriers to receiving needed post-ED care. Interviews revealed the potential importance of VA health care staff reaching out to Veterans following ED visits to overcome these barriers and ensure that all Veterans receive the post-ED care they need.

## AUTHOR CONTRIBUTIONS

Study concept and design—Kristina M. Cordasco, Ron D. Hays, Neetu Chawla, David A. Ganz. Acquisition of the data—Kristina M. Cordasco, Alicia R. Gable, Gracielle J. Tan, Anita H. Yuan. Analysis and interpretation of the data—Kristina M. Cordasco, Alicia R. Gable, Gracielle J. Tan, Kathleen Yip, Mana Khafaf, Ron D. Hays, Jessica P. Faiz, Neetu Chawla, David A. Ganz. Drafting of the manuscript—Kristina M. Cordasco. Critical revision of the manuscript for important intellectual content—Kristina M. Cordasco, Alicia R. Gable, Gracielle J. Tan, Kathleen Yip, Ron D. Hays, Jessica P. Faiz, David A. Ganz. Acquisition of funding—Kristina M. Cordasco, Neetu Chawla, David A. Ganz.

## CONFLICT OF INTEREST

The authors declare no potential conflict of interest.

## ORCID

Kristina M. Cordasco  <https://orcid.org/0000-0002-5866-1763>

## REFERENCES

- Hastings SN, Smith VA, Weinberger M, Schmader KE, Olsen MK, Oddone EZ. Emergency department visits in veterans affairs medical facilities. *Am J Managed Care*. 2011;17(6):e215-e223.
- National Quality Forum. Emergency department transitions of care—a quality measurement framework final report. August 2017. Accessed August 13, 2022. [https://www.qualityforum.org/Emergency\\_Department\\_Quality\\_of\\_Transitions\\_of\\_Care.aspx](https://www.qualityforum.org/Emergency_Department_Quality_of_Transitions_of_Care.aspx)
- Hastings SN, Oddone EZ, Fillenbaum G, Sloan RJ, Schmader KE. Frequency and predictors of adverse health outcomes in older medicare beneficiaries discharged from the emergency department. *Med Care*. 2008;46(8):771-777.
- Gruneir A, Silver MJ, Rochon PA. Emergency department use by older adults: a literature review on trends, appropriateness, and consequences of unmet health care needs. *Med Care Res Rev*. 2011;68:131-154.
- Nunez S, Hexdall A, Aguirre-Jaime A. Unscheduled returns to the emergency department: an outcome of medical errors? *Qual Saf Health Care*. 2006;15(2):102-108.
- Hilligoss B, Vogus TJ. Navigating care transitions: a process model of how doctors overcome organizational barriers and create awareness. *Med Care Res Rev*. 2015;72(1):25-48.
- Hsiao AL, Shiffman RN. Dropping the baton during the handoff from emergency department to primary care: pediatric asthma continuity errors. *Jt Comm J Qual Patient Saf*. 2009;35:467-474.
- Hogan TM, Losman ED, Carpenter CR, et al. Development of geriatric competencies for emergency medicine residents using an expert consensus process. *Acad Emerg Med*. 2010;17(3):316-324.
- American College of Emergency Physicians, American Geriatrics Society, Emergency Nurses Association, Society for Academic Emergency Medicine, Geriatric Emergency Department Guidelines Task Force. Geriatric emergency department guidelines. *Ann Emerg Med*. 2014;63(5):e7-e25.
- Geriatric emergency department accreditation program. American College of Emergency Physicians. Accessed November 13, 2022. <https://www.acep.org/geda/>
- GEAR: Geriatric Emergency care Applied Research. GEAR Network. Accessed November 13, 2022. <https://gearnetwork.org/>
- Gettel CJ, Serina PT, Uzamere I, et al. Emergency department-to-community care transition barriers: a qualitative study of older adults. *J Am Geriatr Soc*. 2022;70(11):3152-3162.

13. Hastings SN, Schmader KE, Sloane RJ, Weinberger M, Goldberg KC, Oddone EZ. Adverse health outcomes after discharge from the emergency department—incidence and risk factors in a veteran population. *J Gen Intern Med*. 2007;22:1527-1531.
14. Veterans Health Administration handbook 1101.05. Department of Veterans Affairs; 2016.
15. Cordasco KM, Yuan A, Aoki K, Ganz DA. Patient needs following emergency care for ambulatory care sensitive conditions. *Am J Manag Care*. 2022;28(5):232-236.
16. Walker D, Myrick F. Grounded theory: an exploration of process and procedure. *Qual Health Res*. 2006;16(4):547-559.
17. National Center for Veterans Analysis and Statistics. U.S. Department of Veterans Affairs. Last updated September 30, 2021. Accessed December 1, 2022. <https://www.va.gov/vetdata/report.asp>
18. Klein S. *The Veterans Health Administration: Implementing Patient-Centered Medical Homes in the Nation's Largest Integrated Delivery System*. The Commonwealth Fund; 2011.
19. VA Informatics and Computing Infrastructure (VINCI). U.S. Department of Veterans Affairs. Update/reviewed March 16, 2022. Accessed August 13, 2022. [https://www.hsrd.research.va.gov/for\\_researchers/vinci](https://www.hsrd.research.va.gov/for_researchers/vinci)
20. Johns Hopkins University, Armstrong Institute for Patient Safety and Quality. *Improving the Emergency Department Discharge Process: Environmental Scan Report*. (Prepared by Johns Hopkins University, Baltimore, MD, under Contract No. HHS 290201000271.). AHRQ Publication No. 14(15)-0067-EF. Agency for Healthcare Research and Quality; 2014.
21. Hamilton A. *Qualitative Methods in Rapid Turn-Around Health Services Research*. Health Services Research & Development Cyberseminar; 2013.
22. Hamilton A. Rapid qualitative analysis: updates/developments. VA HSR&D cyberseminar. September 29, 2020. Accessed September 4, 2022. [https://www.hsrd.research.va.gov/for\\_researchers/cyber\\_seminars/archives/video\\_archive.cfm?SessionID=3846](https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3846)
23. Averill JB. Matrix analysis as a complementary analytic strategy in qualitative inquiry. *Qual Health Res*. 2002;12(6):855-866.
24. Spandorfer JM, Karras DJ, Hughes LA, Caputo C. Comprehension of discharge instructions by patients in an urban emergency department. *Ann Emerg Med*. 1995;25(1):71-74.
25. Engel KG, Heisler M, Smith DM, Robinson CH, Forman JH, Ubel PA. Patient comprehension of emergency department care and instructions: are patients aware of when they do not understand? *Ann Emerg Med*. 2009;53(4):454-461.
26. Friedman SM, de Dios V, Hannerman K. Noncompletion of referrals to outpatient specialty clinics among patients discharged from the emergency department: a prospective cohort study. *Can J Emerg Med*. 2010;12:325-330.
27. Roh H, Park KHP. A scoping review: communication between emergency physicians and patients in the emergency department. *J Emerg Med*. 2016;50(5):734-743.
28. Samules-Kalow ME, Stack AM, Porter SC. Effective discharge communication in the emergency department. *Ann Emerg Med*. 2012;60(2):152-159.
29. Abraham J, Kannappallil T, Caskey RN, Kitsiou S. Emergency department-based care transitions for pediatric patients: a systematic review. *Pediatrics*. 2016;138(2):e20160969.
30. Qureshi R, Asha SE, Zahra M, Howell S. Factors associated with failure to follow up with a general practitioner after discharge from the emergency department. *Emerg Med Australas*. 2012;24:604-609.
31. Griffey RT, Shin N, Jones S, et al. The impact of teach-back on comprehension of discharge instructions and satisfaction among emergency patients with limited health literacy: a randomized controlled study. *J Commun Healthc*. 2015;8(1):10-21.
32. Lewis VR, Benda N, Nassar C, Magee M. Successful patient diabetes education in the emergency department. *Diabetes Educ*. 2015;41(3):343-350.
33. Villa-Roel C, Nikel T, Ospina M, Voaklander B, Campbell S, Rowe BH. Effectiveness of educational interventions to increase primary care follow-up for adults seen in the emergency department for acute asthma: a systematic review and meta-analysis. *Acad Emerg Med*. 2016;23(1):5-13.
34. Hayes KS. Randomized trial of geragogy-based medication instruction in the emergency department. *Nurs Res*. 1998;47:211-218.
35. Austin PE, Matlack IR, Dunn KA, Kesler C, Brown CK. Discharge instructions: do illustrations help our patients understand them? *Ann Emerg Med*. 1995;25(3):317-320.
36. Delp C, Jones J. Communicating information to patients: the use of cartoon illustrations to improve comprehension of instructions. *Acad Emerg Med*. 1996;3(3):264-270.
37. Cordasco KM, Asch SM, Bell DS, et al. A low-literacy medication education tool for safety-net hospital patients. *Am J Prev Med*. 2009;37(suppl 1):S209-S216.
38. Jolly BT, Scott JL, Sanford SM. Simplification of emergency department discharge instructions improves patient comprehension. *Ann Emerg Med*. 1995;26:443-446.
39. Patel B, Kennebeck SS, Caviness AC, Macias CG. Use of a discharge facilitator improves recall of emergency department discharge instructions for acute gastroenteritis. *Pediatr Emerg Care*. 2009;25(9):558-564.
40. Hoek AE, Anker SCP, vanBeeck EF, Burdorf A, Rood PPM, Haagsma JA. Patient discharge instructions in the emergency department and their effects on comprehension and recall of discharge instructions: a systematic review and meta-analysis. *Ann Emerg Med*. 2020;75(3):435-444.
41. Kaboli PJ, Miake-Lye IM, Ruser C, et al. Sequelae of an evidence-based approach to management for access to care in the Veterans Health Administration. *Med Care*. 2019;57(suppl 3):S213-S220.
42. Hastings SN, Stechuchak KM, Coffman CJ, et al. Discharge information and support for patients discharged from the emergency department: results from a randomized controlled trial. *J Gen Intern Med*. 2020;35:79-86.
43. McQuown C, Snell KT, Abbate LM, Jetter EM, et al. Telehealth for geriatric post-emergency department visits to promote age-friendly care. *Health Serv Res*. 2022. doi:10.1111/1475-6773.14058
44. Cordasco KM, Saifu HN, Song H, et al. The ED-PACT tool initiative: communicating Veterans' care needs after emergency department visits. *J Healthc Qual*. 2020;42(3):157-165.
45. Penney LS, Moreau JL, Miake L, et al. Spreading the Veterans Health Administration's emergency department rapid access clinics (ED-RAC) innovation: role of champions and local contexts. *Healthcare*. 2021;9(2):100516.
46. Baren JM, Boudreaux ED, Brenner BE, et al. Randomized controlled trial of emergency department interventions to improve primary care follow-up for patients with acute asthma. *Chest*. 2006;129:257-265.
47. Jacobson GC, Jones CMC, Green RK, et al. Effectiveness of a care transitions intervention for older adults discharged home from the emergency department: a randomized controlled trial. *Acad Emerg Med*. 2022;29(1):51-63.
48. Bissett M, Cusick LNA. Functional assessments utilized in emergency departments: a systematic review. *Age Ageing*. 2013;42(2):163-172.
49. Galven R, Gillett Y, Wallace E, et al. Adverse outcomes in older adults attending emergency departments: a systematic review and meta-analysis of the identification of seniors at risk (ISAR) screening tool. *Age Ageing*. 2017;46(2):179-186.
50. Hong WS, Haimovich AD, Taylor RA. Predicting 72-hour and 9-day return to the emergency department using machine learning. *JAMIA Open*. 2019;2(3):346-352.

51. Sanderson C, Dixon J. Conditions for which onset or hospital admission is potentially preventable by timely and effective ambulatory care. *J Health Serv Res Policy*. 2000;5(4):222-230.
52. Grumbach K, Bodenheimer T. A primary care home for Americans—putting the house in order. *JAMA*. 2002;288(7):889-893.
53. Ye F, Parast L, Hays RD, et al. Development and validation of a patient experience of care survey for emergency departments. *Health Serv Res*. 2022;57(1):102-112.
54. Fields B, Rodakowski J, James AE, Beach S. Caregiver health literacy predicting healthcare communication and system navigation difficulty. *Fam Syst Health*. 2018;36(4):482-492.
55. Roth DL, Sheehan OC, Huang J, et al. Medicare claims indicators of healthcare utilization differences after hospitalization for ischemic stroke: race, gender, and caregiving effects. *Int J Stroke*. 2016;11(8):928-934.
56. Chary A, Liu S, Southerland L, et al. Emergency department policies to improve care experiences for older adults during the COVID-19 pandemic. *J Geriatr Emerg Med*. 2022;3(2):3. doi:[10.17294/2694-4715.1031](https://doi.org/10.17294/2694-4715.1031)
57. Cumming GG, McLane P, Reid RC, et al. Fractured care: a window into emergency transitions in care for LTC residents with complex health needs. *J Aging Health*. 2020;32(3-4):119-133.
58. Washington DL, ed. *National Veteran Health Equity Report 2021. Focus on Veterans Health Administration Patient Experience and Health Care Quality*. VHA Office of Health Equity; 2022.

## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**How to cite this article:** Cordasco KM, Gable AR, Tan GJ, et al. Veteran knowledge, perceptions, and receipt of care following visits to VA emergency departments for ambulatory care sensitive conditions. *Acad Emerg Med*. 2023;30:252-261. doi:[10.1111/acem.14649](https://doi.org/10.1111/acem.14649)