Differences Between Emergency Nurse Perception and Patient Reported Experience With an ED HIV and Hepatitis C Virus Screening Program

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Introduction: Nontargeted human immunodeficiency virus (HIV) screening and targeted hepatitis C virus (HCV) screening for selected high-risk patients (those born between 1945 and 1965 and those who report injection drug use) was integrated into our ED triage process and carried out by nurses. Determining whether emergency nurses accurately perceive what patients experience is important to know because staff misperceptions may pose a barrier to program adherence and sustainability.

Methods: We performed a cross-sectional survey study of emergency nurses and patients to assess the accuracy of emergency nurses' perception of patient experience with the HIV/HCV screening program. Respondents evaluated their level of agreement using a 5-item Likert scale for 9 statements across 4 domains related to the patient experience with the screening process (satisfaction, sense of autonomy, sense of privacy, and comfort level).

Results: Surveys were completed by 65 of the 153 eligible emergency nurses (42%). Of the 1040 patients approached, 610 (59%) were eligible, and 491 of the 610 eligible patients (80%) completed surveys. Across all domains, statistically significant differences were found between emergency nurse perception and patient report, $P < .001$. Emergency nurses perceived patients to be less satisfied with the screening program, more uncomfortable with being asked screening questions, more concerned about privacy issues, and less likely to feel that the decision to decline screening was autonomous than were patients.

Discussion: Emergency nurses not only frequently misperceive how patients experience ED-based HIV/HCV screening, but these misperceptions are skewed toward the negative, representing a type of staff bias. Further research is recommended to determine if such misperceptions adversely affect implementation of screening.

Keywords: Hepatitis C virus screening; HIV screening; Emergency department; Patient satisfaction

The Centers for Disease Control and Prevention (CDC) recommend integrating routine, nontargeted human immunodeficiency virus (HIV) screening and targeted hepatitis C virus (HCV) screening for selected high-risk patients into clinical practice, even in settings such as emergency departments.[1,2] Since April 2014, in accordance with these recommendations, we have integrated triage HIV and HCV screening into standard ED processes. Our program was

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integrated into preexisting processes, utilizing emergency nurses, triage infrastructure, and standard hospital laboratory practices.

Our program's success is heavily reliant on emergency nurse participation and compliance. Although HIV and HCV screening program compliance may be facilitated through streamlined and easy-to-follow policies that are integrated into preexisting processes, compliance may be hindered by the concerns, apprehensions, and biases of emergency providers.[3–5] In fact, shortly after our program's implementation, many emergency nurses expressed concern that patients felt uncomfortable and that many were even "offended" when they were offered HIV and HCV screening during triage. To date, however, we have not received any formal patient complaints about the screening program.

Evaluating and addressing barriers to implementation are critical components of screening program quality improvement processes.[6–8] Some authors have suggested that staff misperceptions related to the screening process may have a negative effect on implementation.[7] Determining whether emergency nurses accurately perceive what patients experience is important to know, because misperception between staff presumptions and actual patient experience may pose an important (and underappreciated) barrier to program buy-in and sustainability.[7]

Methods

STUDY DESIGN

We performed a cross-sectional survey study of ED patient and emergency nurse experience with HIV and HCV screening. This study was approved by the hospital's Institutional Review Board. Patients provided written informed consent and staff consent was inferred by survey participation.

STUDY SETTING AND POPULATION

This study took place in an urban California teaching hospital with an accredited 4-year emergency medicine residency program. The annual ED volume is approximately 90,000 patients per year; 45% of patients are black, 30% are Hispanic, 20% are white, 44% are female, and 85% have public insurance. The combined HIV and HCV screening program had been in place for 3.5 months prior to initiation of this study.

HIV AND HCV SCREENING PROTOCOL

Emergency nurses offered HIV and HCV screening to eligible patients during triage. Text prompts were integrated into the triage template of the electronic medical record (Wellsoft Corporation, Somerset, NJ) to facilitate the process. The protocol designated nontargeted HIV screening for patients older than 13 years and targeted HCV screening for the subset of patients born between 1945 and 1965, as well as patients who answered affirmatively to having ever used "a needle to inject drugs." Patients were ineligible to be offered screening if they reported prior knowledge of HIV or HCV infection or if the emergency triage nurse determined that they were medically unable to participate because of a high-acuity medical condition or impaired mental status. Opt-out verbal consent was used, and the emergency triage nurse could electronically order screening tests without requiring physician authorization. Blood was obtained using standard ED procedures, and tests were processed in the hospital laboratory using the Abbott Architect analyzer (4th generation HIV antigen/antibody and HCV antibody; Abbott Diagnostics, Lake Forest, IL).

SELECTION OF PARTICIPANTS

Adult patients ages 18 years and older were eligible for survey administration if they completed triage screening, spoke Spanish or English, were medically stable, and were able to provide informed consent. Staff members were eligible if they were registered emergency nurses who worked clinically and provided direct patient care for at least 4 weeks while the screening program was in place.

SURVEY CONTENT AND ADMINISTRATION

Five trained volunteer research assistants (RAs) who were unaware of the study purpose administered the patient surveys from July to August 2014 during assigned 4-hour time blocks. RAs reviewed the ED electronic medical record and identified adult patients flagged for discharge or admission. They approached these patients in a systematic manner, beginning first with the lowest acuity patients flagged for discharge and finishing with admitted patients. In an effort to prevent selection bias, RAs were blinded to any test results and the reason for the patient's visit, and they were not given access to the medical record. Further study eligibility was evaluated at the bedside, and participating patients provided written consent prior to survey administration.

Emergency nurses were recruited for participation via E-mail using a departmental E-mail list. Consenting participants accessed the survey via an online link (SurveyMonkey, Inc). For nurses who did not complete the survey after the initial request, subsequent E-mail reminders were sent at weekly intervals for up to 3 consecutive weeks to maximize participation. The survey was closed for participation 1 week after the fourth E-mail reminder had been sent.