Results of a Rapid Hepatitis C Virus Screening and Diagnostic Testing Program in an Urban Emergency Department

Douglas White, MD, Erik Anderson, MD, Sarah Pfeil, BS, Tarak Trivedi, MD, Harrison Alter, MD, MS
Department of Emergency Medicine, Highland Hospital – Alameda Health System (AHS)

BACKGROUND
- In addition to HIV screening, the Centers for Disease Control (CDC) recommend hepatitis C virus (HCV) screening for patients at increased risk (i.e., injection drug use) and for those born between 1945-1965 (birth cohort).

OBJECTIVE
- To describe the feasibility and yield of an ED HCV testing program that integrated birth cohort screening and screening of patients who use injection drugs (IDU), as well as physician diagnostic testing.

METHODS
- Descriptive analysis of a clinical protocol.
- Outcomes of first 6 months of HCV screening/diagnostic testing are reported.
- Study received institutional board approval, with a waiver of written informed consent.
- Adhered to STROBE guidelines for cohort studies.

PRIMARY OUTCOME
- HCV prevalence among tested patients.
- Factors associated with testing positive were evaluated with logistic regression.

RESULTS
- Overall HCV testing rate: 9.7%
- Overall rate HCV antibody positivity: 10.3%
- Of the 267 HCV antibody positive patients: 137 (51%) results were disclosed
- 181 (68%) had confirmatory RNA testing performed, of whom 127 (70%) were positive.
- Successful HCV clinic follow-up:
  - 58 of the 127 patients who were confirmed RNA positive (46%).

LIMITATIONS
- Urban, academic setting may influence yield of screening and limit generalizability.
- Unable to evaluate effect of HCV screening on other ED processes (length of stay, clinical outcomes, staff/patient experience).
- Data does not allow accurate determination of number of HCV positive patients with prior knowledge of infection.

CONCLUSIONS
- Although HCV antibody prevalence was greatest amongst the birth cohort, IDU, and homeless, rates were high within all subpopulations.
- Challenges with HCV screening included result disclosure, confirmatory testing, and linkage to care.
- Results warrant continued efforts to develop and evaluate policies for ED-based HCV screening.

Supported by HIV FOCUS Program, Gilead Sciences.