Utilizing Epic for Improvements in Hepatitis Care and Surveillance

Viral Hepatitis Virtual Learning Collaborative
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San Francisco Health Network (SFHN) is part of San Francisco Department of Public Health (SFDPH)

Allows us access to Epic, SFHN’s electronic medical records database

Also provides us with in-house Epic IT team
Advances in Epic

Implemented
- HCV Patient Registry – Active Cases
- HCV Patient Registry – Active & Resolved
- HCV Screening Care Gap – Universal & Risk-Based

In Progress
- HBV Vaccination Care Gap
- Clinic-based Quarterly Report
- SFHN HCV Dashboard

Future Plans
- HCV My Panel Metric Dashboard
- HBV Universal Screening Care Gap
HCV Patient Registries

Active HCV Infections

Inclusion Rule = 1 and (2 or 3 or 4) and (5 or 6)

Where:

1. Patient is alive
2. Active HCV diagnosis in Problem List or
3. ≥ 2 HCV diagnoses in encounter diagnosis or
4. Reactive HCV Ab test and
5. Last HCV RNA test is Positive or
6. No HCV RNA test on record

Purpose – Provider support
Providers can pull a list of their patients themselves
List shared with each clinic quarterly
HCV Patient Registries

Active & Resolved HCV Infections

Inclusion Rule = 1 and (2 or 3 or 4 or 5)
Where:
1. Patient is alive
2. Active HCV diagnosis in Problem List or
3. ≥ 2 HCV diagnoses in encounter diagnosis or
4. Reactive HCV Ab test or
5. Positive HCV RNA test in past 5 years

Purpose – Surveillance & QI
Data to be used for analysis of treatment completions/cure rates
Reports to providers showing HCV elimination efforts over time
Care Gaps

**HBV Vaccination Care Gap**
- Notifies provider if patient aged 19-59 has no record of HBV vaccination

**HBV Screening Care Gap**
- Will notify provider if patient has no HBsAg test on file (may show if missing all 3 HBV tests)
- Will notify provider if pregnant patient has not completed HBV-panel tests during their pregnancy
- To be implemented upon update to CDC guidelines

**HCV Screening Care Gap**
- Notifies provider if patient has no HCV Ab test on file
- Notifies provider if pregnant patient has not received HCV Ab test during their pregnancy
- Ability to toggle on Risk-Based screening – notification for annual HCV Ab testing
- To be implemented upon update to CDC guidelines
Development Process

Who Was Involved

Medical Advisor – Dr. David English & Dr. Joanna Eveland, HCV Champion Providers
Epic IT Support – François Habchi, Epic Technical Lead
Epic QI Leadership – Henry Rafferty, Primary Care Reporting Lead
Epi/Surveillance Advisor – Elise Mara, Epidemiologist
Project Coordinator – Rachel Grinstein, Community Liaison
Questions & Challenges

What advancements should you request?

Knowing what’s possible

Knowing how improvements are made (system-wide vs. individual database improvements)

IT and QI staffing capacity

Prioritizing what you want
Questions & Challenges

What is it for? Care coordination? Surveillance?

Who to include: Resolved infections? Deceased patients? Inactive patients?

How much information is too much?

HAV/HBV vaccination, APRI score, genotype

System limitations

Lookback periods

Level of complexity allowed / system efficiency

Inconsistencies in how information is recorded: treatment dates, SVR, IDU
Questions & Challenges

Are multiple registries needed or can one registry serve multiple purposes?

Is it better to include parameters that return irrelevant patients, or to leave them out and exclude relevant patients?

Communication barriers / different vocabularies

External lab data – must be mapped out individually for each lab

Determining appropriate definitions for demographic fields

Only able to include most recent test results
How should outdated lab results be classified? (<615 IU/mL)

Should indeterminate lab results qualify?

“Presumptive reactive” or “Equivocal” HCV Ab test result

Indeterminate and inconclusive lab results override older lab tests with positive result

Multiple records with incorrect diagnosis code entered (ICD 10 code for HCV used instead of HBV)
Questions & Challenges

When is it ready to be shared widely?
How will we publicize it?

Covid-19
  - Staffing capacity
  - Staff turnover, loss of connections to clinics

Unable to share registry template with external systems
My Panel Metrics reports development are deprioritized
Implementation

Provider Network

Clinic-specific registry assists in patient navigation and patient follow-up.

Reports will support QI, performance evaluation and development of new strategies.

Compiled demographic information will aid in the creation and implementation of micro-elimination efforts.
Implementations

**Surveillance**

Streamlines data validation and data matching for other projects

Demographic and treatment data will be imported into surveillance registry

Provides additional measures for tracking HCV burden in SF

Ability to develop a care cascade for SFHN patients
Implementations

End Hep C SF Dashboard

Number of people who start HCV treatment through SFHP
Future Goals

Additions to patient-accessible My Chart system

• Health Maintenance Alert for HBV & HCV testing on My Chart account
• Text and email reminders for HBV vaccination, HBV & HCV screening
• Emails to patients in need of HCV treatment
My Panel Metric HCV dashboard for providers that includes:

- % of patients with no HCV Ab test
- % of patients with reactive HCV Ab test and no HCV RNA test
- % of patients with positive result on most recent HCV RNA test
- % of HCV+ patients that receive a prescription for a DAA
Future Goals

My Panel Metric HBV dashboard for providers that includes:

• % of patients in need of HBV vaccine
• % of patients who received 1st dose of HBV vaccine
• % of patients who completed full course of HBV vaccine
• % of pregnant patients in need of HBV screening
Thank you!

End Hep C SF website - https://endhepcsf.org/

End Hep C SF public dashboard - https://app.resultsscorecard.com/Scorecard/Details/75131

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