Hepatitis B Screening in a Primary Care Clinic
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Background
- Problem Statement: Hepatitis B is a serious viral infection affecting thousands of individuals in the US that can lead to liver damage, cancer, and death. The CDC has criteria for who should be screened for HBV, although it is difficult for providers to discern which patients do meet these within the time constraints of clinic visits.
- Project AIM: Perform retrospective chart review of JHAP patients within a two-week period to evaluate the number of patients who have been screened for HBV (with HbsAg, HbsAb, HbcAb) and propose interventions that could help improve screening rates.

Baseline Metrics

Patient Characteristics
- 58% Female
- Average Age 51

Race
- Black or AA 20%
- Caucasian 40%
- Other 20%
- Asian 20%

USPSTF/CDC Criteria for Hep B screening (n = 79/215)

Drug Use
- MSM 20%
- HIV 10%
- Immunosuppressed 10%
- Diabetes 40%
- Dialysis 10%

Proposed interventions to improve screening:
1) Reminding primary care providers about HBV screening with flyers posted in clinic
2) Including ‘Best Practice Advisory’ for Care Gap in Epic for HBV screening
3) Advocate for universal screening, similar to HCV screening

Interventions

Stakeholder Analysis: Universal HBV Screening

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<thead>
<tr>
<th>Stakeholders</th>
<th>Significantly Against</th>
<th>Moderately Against</th>
<th>Neutral</th>
<th>Moderately Supportive</th>
<th>Significantly Supportive</th>
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</thead>
<tbody>
<tr>
<td>Patients</td>
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<tr>
<td>Primary Providers</td>
<td>X</td>
<td>O</td>
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<td>Hepatologists</td>
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<td>Specialty Pharmacies</td>
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<td>ISDA</td>
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<td>USPSTF</td>
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<td>Insurance Providers</td>
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<td>Medicine Associations</td>
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<td>Health Plan Beneficiaries</td>
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Baseline Screening:
- 83/215 (38%) had any type of screening
- 37/215 (17%) patients had triple screening (HbsAg, HbsAb, HbcAb)
- 12/215 (5%) had a positive core antibody
- Race was not an independent risk factor for positive screening of any type

Root Cause Analysis

<table>
<thead>
<tr>
<th>People/Team Factors</th>
<th>Patient factors</th>
<th>Environment factors</th>
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<tbody>
<tr>
<td>Limited availability of specialists [Epic]</td>
<td>Cultural barriers</td>
<td>&quot;Ten minute visit&quot; in clinic</td>
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<td>Not wanting to share sensitive info</td>
<td>Cost to patient for not proactive test</td>
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<td>Difficulty screening all risk factors</td>
<td>Lack of awareness/knowledge</td>
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<td>Time limits in clinic</td>
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Method/Task Factors
- Training/Education
- Materials/Technology

Underutilization of routine Hep B screening

"Ten minute visit"

Future Directions
- Subgroup analysis of HBV risk factors and demographic factors to further delineate disparities in HBV screening
- Implementing intervention such as BPA or Care Gap and comparing pre- and post-rates in HBV screening

Challenges and Lessons Learned
- Balancing the viewpoints of different stakeholders – i.e. wanting to include an Epic BPA or Care Gap, but also wanting to avoid provider “click fatigue”
- Difficulty finding which patients meet criteria while conducting chart review. PCPs face similar difficulties given multiple demands during “15 minute visit.”

Linkage to Healthcare Disparities
- Hepatitis B, like other bloodborne viruses, is associated with lack of awareness and stigma among the general population. It is estimated by the CDC that 68% of individuals with chronic hepatitis B are unaware of their disease [1]. Additionally, given the mechanisms of transmission, individuals that may be at risk for and benefit from screening often fear discrimination [2]. Both factors may pose barriers to effective screening, leading to increased transmission of disease and inadequate hepatologist surveillance.