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Hepatitis C Screening Protocol in a Rural Primary Care Setting

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Executive Summary

Introduction of the Problem

Hepatitis C is a virus primarily affecting the liver that can lead to both acute and chronic infection (Boucher, Walsh, & Forest, 2016). In 2012, the Centers for Disease Control and Prevention (CDC) changed the Hepatitis C virus (HCV) screening criteria to encompass more patients who may be at risk (Boucher et al., 2016). Specific criteria for screening include those born between 1945 and 1965, those infected with Human Immunodeficiency Virus (HIV), and those on long-term hemodialysis (Martin, Norcott, Khalid, & O'Connell, 2017). While access to care and screening recommendations have evolved, it has been found that only 36% of providers are actively screening for Hepatitis C (Boucher et al., 2016).

Operational and structural barriers in a rural, midwestern primary care clinic further exacerbated this lack of screening. There was no standard process among providers to initiate a conversation between provider and patient regarding screening for HCV based on clinical practice guidelines. Because of this, asymptomatic patients were not routinely screened for HCV within this clinic setting. Efforts to improve screening rates are essential, as approximately 85% of those with this disease are asymptomatic. If left untreated, the acute phase could lead to chronic infection and consequently cirrhosis, liver failure, and hepatocellular carcinoma (Boucher et al., 2016). The significantly low rate of HCV screening was evidence of the need to develop a routine testing protocol within this rural primary care clinic.

Literature Review

The US Preventive Services Task Force (USPSTF) (2013) recommends specific patients be screened for HCV within the population-based risk category. The first recommendation includes patients born between 1945 and 1965. Patients in this age group were most likely

undereducated regarding exposure risks, which places them at a higher risk for exposure. The USPSTF (2013) also recommends that all children born to HCV infected mothers be tested, as the child had risk for exposure at the time of birth. Additionally, the CDC recommends that all Human Immunodeficiency Virus (HIV) infected patients be screened. Behavior based risks are also highlighted within the USPSTF (2013) guidelines. These recommendations include individuals with past or current injection or intranasal drug use, those who have high risk sexual behaviors, or those with unregulated skin tattoos or other percutaneous exposures. Healthcare-based risks listed by the USPSTF (2013) include patients who received blood or blood products before 1992, patients on long-term hemodialysis, and healthcare workers or anyone who encounters needle-sticks or sharps injuries. The USPSTF (2013) notes that blood testing is considered an appropriate diagnostic tool. Benefits of HCV screening include improved health outcomes and reduction in high-risk behaviors. Potential harms include patient anxiety, labeling, and stigmatization (USPSTF, 2013).

One of the barriers affecting screening is that HCV is generally asymptomatic, so there is often no prompt for patients to make an appointment with their provider (Feldman et al., 2017). Another primary reason for lack of HCV screening is the absence of education regarding the virus, its transmission, and associated mortality. This lack of education was noted to be particularly prevalent amongst high-risk groups (Feldman et al., 2017). Additional barriers include time to take the test, cost of the test, inadequate access to healthcare, and the patient not believing they were at risk (Brewer, Hanna, Eckmann, Schadler, & Divine, 2018).

In 2013, the USPSTF gave the recommendation for HCV screening a “B” grade, to describe its strength. This “B” grade indicated that under the Patient Protection and Affordable Care Act (PPACA), screening is covered by insurance with no cost-sharing, deductible, or co-

pay (U.S. Department of Health and Human Services, 2016; Weiner & Linas, 2018). For those who are uninsured or do not meet the screening requirements, cost is out of pocket. Potential ethical implications include costs added to Medicare, high costs of treatment, and the chance that a patient found positive for HCV will never incur serious sequelae. HCV testing and treatment, and evidence regarding both are limited in rural settings, where operational and structural barriers exacerbate the screening issue (Lancaster et al., 2018). To further complicate this issue, it was noted that even amongst the rural areas that do offer HCV testing, only one-third have access to care and treatment referral tracking systems (Lancaster et al., 2018).

Project Methods

The purpose of our project was to implement an HCV protocol in a rural primary care clinic to ensure that appropriate patients were being screened for HCV per CDC and USPSTF guidelines. We created a flow sheet for front desk staff, nursing staff, and providers to use to determine HCV screening criteria. If the patient met criteria for screening, the nurse would continue with the flowsheet and determine acceptable ICD -10 code for insurance purposes. If the patient did not have insurance, the nurse would determine the out-of-pocket cost. The flowsheet would then be handed to the provider who would discuss the benefits and risks of HCV screening with the patient. If the patient wished to continue with screening, the provider would create a lab order for HCV. It would then be documented in the chart if the patient accepts or declines HCV screening.

We held an educational meeting in June for all staff to educate them on the new screening process. At the meeting, we held a question and answer discussion session to ensure understanding and discuss barriers. If staff were not present at the meeting, we created a separate

time to speak with them about the new process change. When feedback was obtained, we discussed changes with the primary healthcare provider and then implemented the screening tool.

Evaluation

In early stages of implementation, a meeting was held with the primary care provider piloting the protocol, as well as clinic staff members. It was originally planned that front desk staff would disperse a flowsheet to specific patients in order to determine eligible HCV screening criteria. This flowsheet would prompt the clinic nurse to review insurance coverage and subsequently enter an acceptable ICD-10 code in the Electronic Health Record (EHR) problem list (i.e. Need for Hepatitis C Screening Test Z11.59) which would prompt a discussion between the provider and patient regarding screening for the virus. During the staff meeting, clinic staff expressed concerns regarding dispersing the flowsheet as this seemed like an un-obtainable process change. The clinic currently has a process in place termed “pre-visit planning.” During “pre-visit planning”, the clinic nurse reviews the charts of patients a week prior to their appointment. At this time, he or she determines which screenings need to be completed and adds these to the EHR problem list, thereby prompting the provider to have a discussion with the patient and order necessary diagnostic tests. Together, we came to the conclusion that pre-visit planning was the best time to determine eligibility for HCV screening, and moved forth with this plan for implementation. The clinic staff also decided to start the process by only targeting those patients born between the years of 1945 and 1965, which follows evidence-based guidelines.

EHR charts of all patient seen by one provider between July 29th, 2019 and September 21st, 2019 were audited. Data collected included number of patients seen, number of patients seen meeting inclusion criteria for the project, number of patients meeting criteria who had an

HCV screening discussion documented. This data was entered into Microsoft Excel for further review.

Within thirty clinic days, 371 patients were seen for an appointment with one provider piloting the HCV screening protocol. Of the 371 patients, 67 met criteria for inclusion. Inclusion criteria included any individual born between the years 1945 and 1965. Of the 67 patients, a conversation regarding the benefits and risks of HCV screen took place with 27 patients. The patients then had the option to either accept or decline HCV screening.

After reviewing the data, we had a small focus group consisting of two DNP students, nurses, and the primary care provider involved in the implementation. Two reasons given for not discussing HCV screening included failure to have pre-visit planning meeting or having an “acute visit” of an individual in the “baby boomers” age group (i.e. acute sinusitis). They expressed concerns with the lack of pre-visit planning, but they are aware of this flaw within the process. This was an incidental finding during the evaluation phase, and it is a goal within the office setting to improve the process surrounding pre-planning visits. This goes beyond the purpose of this DNP project. Office staff were engaged and supportive of continuing to improve the process. The provider noted that while efforts were made to make project interventions efficient, project implementation added several minutes to patient appointment time. Nurses and providers both agree that once pre-visit planning is implemented effectively, the HCV screening process will be sustainable.

We found three major limitations within our implementation of the HCV screening process. The first limitation is centered around “pre-visit planning”. While the goal at the clinic is for “pre-visit planning” to occur with every patient appointment, it does not always occur. This is due to issues with staffing and prioritizing needs of the clinic (i.e. nurse responsible for pre-

visit planning is needed in more urgent situations). When “pre-visit planning” fails to occur, a major part of the process is missed, as an acceptable ICD-10 code is not placed in the EHR problem list, thereby failing to prompt the provider/patient discussion regarding HCV screening. In these cases, screening is often missed. In addition, patients who were at clinic for an acute visit often missed HCV screening as the appointment was based around their acute illness instead of chronic conditions and preventative screenings. Our last limitation involved our lack of direct involvement with the project implementation. While implementing this project, we were dependent on another provider to carry out the plan.

Impact on Practice

Initiating the HCV protocol created an impact on both current and future practice within the clinic. The immediate impact affected both the staff and patients in the clinic. Staff have now added a new process into their workplace which includes adding another screening tool. On a positive note, it impacted patients, as those born between 1945-1965 are now actively being screened for HCV. The predicted long-term effect will be to continue screening unless new guidelines emerge. Patient’s long-term outcomes will be determined by their HCV screening results. If the patient is positive, the clinic will do further investigation and then refer the patient for further evaluation if needed. But, if the patient is negative, the clinic will continue to monitor for other risk factors to determine if future HCV screening is needed.

Suggested changes to the implementation would be creating a better process to ensure that screening is being completed. Currently with pre-visit planning not occurring, it solely relies on the provider to initiate the screening process. When pre-visit planning resumes, we believe the process can be significantly improved as the nurse can review the chart and determine screening needs as well as the provider.

Conclusion

HCV screening is determined by the patient's population-based risk, behavior-based risk, and healthcare-based risk. Although evidence leans toward HCV screening, we found that many healthcare providers were not currently screening their patients for this disease. We also found that HCV screening provides positive outcomes for the patient, as early diagnosis is key; therefore, we encourage other clinics to implement a similar HCV screening tool into their practice by following CDC and USPSTF guidelines.

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