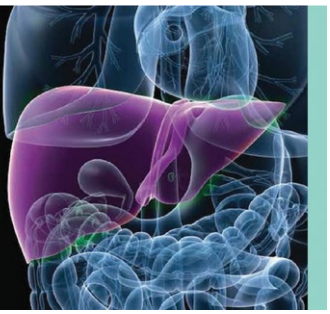

Spotlight on Impactful Research: Universal Screening for Alcohol Misuse in Acute Admissions Is Feasible and Identifies Patients at High Risk for Liver Disease

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Alcohol use represents a substantial part of the overall health care burden in both the United States and worldwide.[1] A consequence of heavy alcohol use over time, alcohol-associated liver disease (ALD) makes up a large portion of the overall burden of cirrhosis in the United States and presents a particularly pronounced burden in northern Europe and the United Kingdom.[2] In 2014, the *Lancet* commissioned a large review of liver disease in the United Kingdom that found significant gaps in the screening and detection of ALD. In response to these findings, Westwood et al.[3] conducted a study to evaluate the feasibility of a universal inpatient screening program for identifying alcohol misuse and those with an increased risk for ALD.

Westwood et al.'s retrospective, observational study[3] was conducted at a single acute care hospital in Portsmouth, England, an area of the United Kingdom with the nation's worst outcomes for alcohol-related medical harm and the highest rates of death from ALD. The study occurred across 3 years and resulted in the screening of slightly more than 50,000 patients, of whom 91% completed alcohol misuse screening. The authors used an online alcohol assessment tool, the Paddington alcohol test.[4] Nursing staff performing admission intake collected information on the type of alcohol consumed, frequency and maximum daily amount, whether the admission was considered alcohol related, and any signs of alcohol withdrawal. The electronic assessment produced a score separating patients into low, increasing, and high risk for alcohol-related complications. Patients in the low-risk category had no further intervention. Patients in the increasing-risk category were referred to a community alcohol intervention team for brief intervention and support. Patients in the highest-risk categories were automatically referred to an alcohol specialist nurse service (ASNS) staffed by five full-time equivalent nurses, 8 hours per day, 7 days per week, 365 days per year.

Abbreviations: ALD, alcohol-associated liver disease; ASNS, alcohol specialist nurse service.

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Potential conflict of interest: Nothing to report.
Received April 10, 2018; accepted May 17, 2018

View this article online at wileyonlinelibrary.com.

Results indicated that the approach used was highly feasible, with less than 10% going unscreened. Those who were not screened tended to be sicker, with a higher mortality rate and poorer mental status, and were discharged the same day or self-discharged from the hospital. Patients who had higher scores on the alcohol risk assessment also typically had more hospital and emergency admissions than their lower-risk counterparts. Importantly, the proportion of admissions attributable to alcohol-related complications was substantially higher, at 22% for those in the high-risk category compared with less than 3% for those in the lower-risk category. Approximately 73% of all high-risk alcohol assessment patients completed an outpatient referral assessment. A comparison of postintervention changes in alcohol consumption for the high-risk group showed decreases in both those seen and not seen by the ASNS. However, the difference in alcohol consumption between the groups of only 3 units of alcohol was felt to be a small effect and not statistically significant because of sample size.

This study is impactful for a number of reasons. First, it demonstrates that universal screening for alcohol misuse in a busy acute medical care hospital is not only feasible but accurately identifies patients with varying levels of risk for alcohol-related complications. Alcohol use assessment stratification was particularly useful because the authors also stratified their intervention based on screen results, moving away from a one-size-fits-all alcohol treatment model toward a tailored referral and intervention based on severity. Not only does this demonstrate the feasibility of screening, where 90% were able to be screened, it also demonstrates the effectiveness of such a screening program in connecting patients with outpatient alcohol treatment. Second, an astonishingly high number of patients (73%) in the highest-risk group completed the outpatient assessment. This amount is much higher than reported rates of substance abuse treatment access for alcohol use in the United States, which hover between 7% and 8%.[5] The mechanism behind such a high referral uptake rate is not clear. Third, the authors also provided a brief look at the effectiveness of such intervention, reporting that overall alcohol consumption decreased in those who were seen by the outpatient alcohol recovery team, although results were not significant between groups because of sample size. The study was limited by scant description of the intervention content, which is necessary to determine why, despite such apparent good referral uptake, there was a blunted treatment effect. In addition, some patients with scores on the screen in the increasing-risk group were also seen by ASNS, although this triage was not fully explained.

Finally, if we look for alcohol use, we must be prepared to help patients manage problematic use when we find it. For universal screening programs to be effective, implementation requires a robust inpatient *and* outpatient infrastructure in place to manage patients once they are identified. The authors provide a useful construct for how this might be accomplished built around three components: (1) accurate and efficient screening protocols built into the electronic health system and integrated into the workflow; (2) stratification of alcohol use into low, medium, and high risk with targeted referrals based on risk stratification; and (3) dedicated outpatient alcohol intervention teams who tailor interventions to patient risk level. Further studies are necessary to determine what types of alcohol reduction and cessation interventions in the outpatient setting might be most effective for various patients and how to implement universal screening and alcohol treatment triage in various health care delivery systems.

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