

Screening Tools for Unhealthy Alcohol Use

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Clinical Question

What short screening tool is most accurate in detecting unhealthy alcohol use in the primary care setting?

Evidence-Based Answer

A single-question alcohol use screen and the Alcohol Use Disorders Identification Test–Consumption (AUDIT-C) can be used to detect unhealthy alcohol use and alcohol use disorder. Their performance is similar between sexes and across races. (Strength of Recommendation: B, based on two cross-sectional studies.)

Evidence Summary

A 2009 cross-sectional study evaluated the validity of a single-question alcohol screening tool (“How many times in the past year have you had five (men)/four (women) or more drinks in a day?”) compared with the AUDIT-C in detecting unhealthy alcohol use and current alcohol use disorder.¹ A response of one or more times was considered positive. The AUDIT-C uses a zero- to four-point scale to inquire how often alcohol was consumed (never to more than four times per week), how many drinks were consumed per day (none to more than 10), and how often six or more drinks were consumed per day (never to almost daily) over the previous 30 days. A positive screen was four or more points for men and three or more for women. Participants (n = 286) were English speaking, older than 18 years, and selected from the waiting room of a primary care clinic. Unhealthy alcohol use was defined as more than 14 drinks per week for men or more than seven per week for women. Criteria for alcohol use disorder are defined in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed.²

Compared with the AUDIT-C, the single-question screen was more sensitive (82% vs. 74%) and slightly less specific (79% vs. 83%) for detecting unhealthy alcohol use.¹ The AUDIT-C was as sensitive as (88%) and more specific than (72% vs. 67%) the single-question screen for detecting current alcohol use disorder. The positive and negative likelihood ratios (LR+ and LR–, respectively) of the single-question screen for unhealthy alcohol use (LR+ = 3.9; LR– = 0.23) compare favorably with those of the AUDIT-C (LR+ = 4.4; LR– = 0.31). The comparison for alcohol use disorder was similar (LR+ = 3.1 for the single-question screen vs. 2.7 for the AUDIT-C; LR– = 0.17 vs. 0.18). The authors concluded that the single-question screen and the AUDIT-C performed equally well in detecting unhealthy alcohol use and current alcohol use disorders.

A 2008 cross-sectional study evaluated the validity of the AUDIT-C compared with the Alcohol Use Disorder and Associated Disabilities Interview Schedule reference standard for alcohol misuse.³ This study assessed 1,292 patients (black, Hispanic, and white) from an academic family medicine clinic. The sensitivity of the AUDIT-C for detecting alcohol misuse differed by patient sex and ethnic/racial groups when using the threshold of four or more points for men and three or more points for women. Among women, sensitivity was highest in Hispanics (85%) and lowest in whites (70%). Among men, sensitivity was higher in whites (95%) compared with blacks (76%), but not significantly higher than in Hispanics (85%). There were no significant differences in specificities between the three ethnic/racial groups in either sex. The areas under the receiver operating characteristic curve for the AUDIT-C were greater than 0.85 as

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a screen for alcohol misuse in men and women across all three ethnic/racial groups.

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