

*Diseases*, 10th Revision, classifications pertinent to alcohol use.<sup>#</sup> In addition, in busy settings such as the emergency department or preoperative assessment clinic, quick methods for the detection of at-risk behavior are realistically more likely to achieve high levels of implementation. Indeed, such methods may be useful for the selection of patients for more detailed evaluation for psychiatric illness and/or intervention.

The study can neither provide data of patients who refused to participate nor provide further data of the enrolled patients with incomplete questionnaires. This has to be taken into consideration when prevalence rates of AUDs are evaluated, because it might be possible that among the nonparticipating population and among those who started but did not complete the computer-based questionnaire, the prevalence rate of AUDs is unusually high or low. However, the study protocol of this study did not allow for obtaining data from patients who did not give written informed consent. Possible reasons for patients not being willing to participate in the survey could include embarrassment of breaking social rules, as well as the fact that patients often undergo a series of examinations (with sometimes long waiting times) on the same day of the preoperative assessment. Although physicians' characteristics, such as their demographics or level of education, might have influenced the detection rate, the study cannot provide any conclusions on these influences. However, the primary aim of this study was to compare the detection of AUDs by anesthesiologists with that by computerized self-assessment of the AUDIT.

Finally, we would like to remark that the order of the two assessments (the computerized version of the AUDIT occurring before the preoperative assessment by the anesthesiologist) might have influenced the patient's disposition to proactively report in the conversation with the physician. However, it is the physician's task to ensure that such information is obtained regardless.

## Conclusion

In conclusion, during preoperative assessment, we observed a positive finding of an AUD in 1 in every 14 patients. This increased to 1 in every 6 patients when the AUDIT score was used in the same group of patients. We found that a major contributor to this discrepancy was the fact that physicians tend to underestimate the prevalence of AUDs in women and younger patients. We noted that although a finding of an AUD is made preoperatively, evidence-based perioperative preventative measures are not undertaken. We established the efficacy of a computer-based version of the AUDIT tool for screening for AUDs and suggest that it may also prove to be useful in a variety of other medical settings with high patient throughput. The enormous amount of well-con-

ducted research into AUDs and their social, physical, and psychological consequences will not yield the benefit it should, if we do not implement strategies for the detection of AUDs into daily clinical routine. Our observations in a preoperative assessment clinic illustrate for us the fact that strategy implementation and barrier analysis are urgently required if high levels of compliance with evidence-based algorithms are to be achieved.

The authors thank Klaus Dieter Wernecke, Ph.D. (Professor Emeritus, Department of Medical Biostatistics, Charité-University Medicine, Berlin, Germany), for his detailed statistical advice; and the patients for participating in this study.

## Appendix: AUDIT

Each question has a score ranging from 0 to 4.

1. How often do you have a drink containing alcohol? (0) Never, (1) Monthly or less, (2) 2 to 4 times a month, (3) 2 to 3 times a week (4) Daily or almost daily
2. How many drinks containing alcohol do you have on a typical day when you are drinking? (0) 1 or 2, (1) 3 or 4, (2) 5 or 6, (3) 7, 8, or 9, (4) 10 or more
3. How often do you have 6 or more drinks on one occasion? (0) Never, (1) Less than monthly, (2) Monthly, (3) Weekly, (4) Daily or almost daily
4. How often during the last year have you found that you were not able to stop drinking once you had started? (0) Never, (1) Less than monthly, (2) Monthly, (3) Weekly, (4) Daily or almost daily
5. How often during the last year have you failed to do what was normally expected from you because of drinking? (0) Never, (1) Less than monthly, (2) Monthly, (3) Weekly, (4) Daily or almost daily
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session? (0) Never, (1) Less than monthly, (2) Monthly, (3) Weekly, (4) Daily or almost daily
7. How often during the last year have you had a feeling of guilt or remorse after drinking? (0) Never, (1) Less than monthly, (2) Monthly, (3) Weekly, (4) Daily or almost daily
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking? (0) Never, (1) Less than monthly, (2) Monthly, (3) Weekly, (4) Daily or almost daily
9. Have you or someone else been injured as a result of your drinking? (0) No, (2) Yes, but not in the last year, (4) Yes, during the last year
10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down? (0) No, (2) Yes, but not in the last year, (4) Yes, during the last year

Total \_\_\_\_\_

The AUDIT includes assessments of frequency and intensity of drinking (first 3 questions), dependence symptoms (questions 4–7), and harmful alcohol use (questions 8–10).<sup>25</sup>

## References

1. World Health Organization and Regional Office of Europe: Framework for Alcohol Policy in the WHO European Region. Copenhagen, Denmark, WHO Press, 2006, pp 1–27
2. Savola O, Niemela O, Hillbom M: Alcohol intake and the pattern of trauma in young adults and working aged people admitted after trauma. *Alcohol Alcohol* 2005; 40:269–73
3. Leon DA, Saburova L, Tomkins S, Andreev E, Kiryanov N, McKee M, Shkolnikov VM: Hazardous alcohol drinking and premature mortality in Russia: A population based case-control study. *Lancet* 2007; 369:2001–9