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Computer-assisted alcohol and other drug screening of trauma patients: Results of a pilot study

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Screening for alcohol and other drugs (AOD) in trauma centers and emergency departments is recommended for early identification and appropriate referral and treatment of AOD abusers. This paper documents the development and pilot testing of a computerized screening instrument for trauma patients, using Adobe Professional 7.0 and Microsoft PowerPoint. The automated screener incorporates questions from NIAAA Alcohol Use Recommendations, CAGE, AUDIT, DAST-10, Skinner Trauma Scale, Readiness to Change Scale, Attribution of Injury and Perception of Pain and Level of Stress indexes, to screen for AOD abuse and dependence. The screener was delivered anonymously to a sample of 57 WVU adult trauma patients on a Motion touch screen tablet computer over a period of 11 days. The acceptability of computerized screening was high, with the vast majority of patients assessing the experience as positive and being willing to repeat it in future. Patients found the tablet screening easy, and the instrument just the right length. Only 6% preferred pencil and paper and 26% face-to-face versions, while 16% offered suggestions for improvement. In multivariate analysis of the pilot data, screening positive for AOD abuse or dependence (AUDIT score=8+ or DAST score=2+) was predicted by higher perceived stress/pain levels and attribution of responsibility for the injury to own AOD use (attribution) (OR=5.6 and 19.3, respectively), while high readiness to

change was predicted by being uninsured and higher likelihood of attribution (OR = 5.8 and 29.7, respectively). Implications for designing and using computerized screening in EDs and trauma centers are discussed.

Learning Objectives:

- To inform the audience concerning the use of commercial software to develop a computerized screener.
- To present the results of a pilot test of an automated screener among trauma patients including their assessment of the experience and suggestions for improvement.
- To identify predictors of positive alcohol and drug screens and readiness to change alcohol and/or drug consumption based on multivariate, logistic regression techniques