Web-based Clinical Decision Support to Improve the Quality of Tobacco Use Treatment in Dental Clinics

**ABSTRACT**

Smoking remains the leading cause of morbidity and mortality in the United States. Dental providers have a credible and central role in providing tobacco cessation services. Controlled trials have demonstrated the efficacy and effectiveness of dental office-based cessation interventions. Yet adherence to well established tobacco use treatment guidelines in dental care settings is suboptimal. Clinical decision support systems (CDSS) are promising strategies for increasing provider adherence to guideline recommended care. However, there are no studies examining the use of CDSS to improve adherence to clinical guidelines for treating tobacco use and dependence in dental practice. We developed a web-based CDSS that offers dentists a simple algorithm for assessing smokers’ readiness to quit and prescribing the appropriate cessation medication. The purpose of this Agency for Healthcare Research and Quality funded research is to 1) test the feasibility of integrating the system into routine dental practice, 2) assess the usability and acceptability of the CDSS among dental professionals, and 3) to examine the preliminary effectiveness of the CDSS in improving dental provider adherence to treatment guidelines. To assess Aims 1 and 2 we will use qualitative interviews conducted with five dental providers per study site (n=30) and will analyze data user data collected from the website. For Aim 3 we will conduct pre and post intervention interviews with patients, after they complete their dental visit, to assess improvements in adherence to tobacco use treatment guidelines and patient satisfaction with the CDSS print materials. Findings from two sites indicate that providers believe this is an easy to use system and is saving them time and improving their confidence when addressing tobacco use. We will present additional findings at the meeting. This web based program has the potential to enhance the quality and consistency of tobacco use treatment in this important setting.