Documenting alcohol use in primary care in Alberta

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Alcohol consumption is a threat to public health in Canada, contributing to morbidity, injury, and mortality.[1] Although primary care physicians are encouraged to screen for alcohol use, studies have found that they often neglect to do so because they lack confidence or the skills necessary to successfully address patients' alcohol use problems.[2] As well, guidelines on documenting alcohol use do not provide specific recommendations or standards on the information about alcohol use that should be included in patients' health records, and how and where to enter it. Electronic medical records (EMRs) contain an array of valuable information; however, the data quality can be highly variable, particularly within risk factor records. It is important to understand the strengths and limitations of EMR data used for research and surveillance purposes, especially given the paucity and variability of literature on alcohol-related documentation in primary care.

We aimed to determine the proportion of patients with alcohol use documented in EMRs and the number of ways physicians documented alcohol use in order to describe the patterns of documentation. Using the standardized CPCSSN procedures and algorithms to extract, clean, and structure data from 2 different EMR systems, we created a province-specific, anonymized database. We abstracted data from the Wolf Medical and the Med Access EMR systems of 71 participating sentinel physicians in Alberta from March 1, 2003, to March 31, 2012. We examined the EMR data to determine the proportion of adults in the yearly contact group (ie, patients who had been recorded as visiting a primary care clinic at least once in the previous 12 months) for whom alcohol use had been documented in the EMR risk factor fields. The total number of unique ways in which physicians entered alcohol use was ascertained, and a content analysis performed to code and analyze the various terms physicians used. Through content analysis, we identified and described emerging patterns of documentation.

A total of 62 727 patients' EMR records were examined. Of these, only 12 548 (20%) had alcohol use documented; 75% of this documentation occurred in the risk factor fields. Physicians used 1178 unique text strings to characterize use. Alcohol documentation was categorized into 6 themes: alcohol screening tools, nondrinker status, ex-drinker status, alcohol use disorder status, quantification of alcohol use, and qualitative description of alcohol use.

- Use of a screening tool was documented in 337 of 12 548 entries (3%), with 3 unique entries. The most common tool was the Alcohol Use Disorders Identification Test—Consumption (AUDIT-C), noted in 99% of these entries.

- Nondrinker status was documented in 9% (1150 of 12 548) of the total entries, with 182 unique entries. The most common such entries were *never* (50% of entries; 572 of 1150) and *none* (16%; 189 of 1150).

- Ex-drinker status was documented in 4% (483 of 12 548) of the total entries, with 45 unique entries. The most common such entries were *previous*, at 42% (202 of 483), and *ex-drinker*, at 36% (173 of 483).

- Alcohol use disorder status was a theme encountered in 0.7% (90 of 12 548) of the entries, with 54 unique entries. Common entries for this theme included *alcohol abuse* (22%; 20 of 90) and *alcoholism* (9%; 8 of 90).

- Alcohol use was also documented quantitatively in 56% (6978 of 12 548) of the entries, with 469 unique entries. The most common ways alcohol use was quantified were *light: <6 drinks/week* (72%; 5047 of 6978) and *moderate: 7-24 drinks/week* (12%; 829 of 6978).

- Qualitative descriptions of alcohol use accounted for 26% (3256 of 12 548) of entries, with 425 unique entries. The most frequently used were *social* (37%; 1206 of 3256), *current* (24%; 787 of 3256), and *rare* (15%; 501 of 3256).

The EMR documentation of alcohol use is variable and inconsistent. It is difficult to understand individual patients' alcohol risks, prognoses, and potential for comorbidities without standard data entry and terminology. Systematic documentation of patient alcohol use could be improved through the use of standardized entry fields and terms to describe alcohol risk factor information. Such improvements might produce more clinically meaningful data for practice management and prevention strategies. ✦

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References
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2. US Preventive Services Task Force. Screening and behavioral counseling interventions in primary care to reduce alcohol misuse. *Ann Intern Med* 2004;140(7):554-6.

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