CDS Starter Kit: Smoking Cessation

Introduction

CDS for smoking cessation is a relatively straightforward set of tools that is a good starting point for beginner-level CDS users. Smoking cessation is the subject of a core measure of Meaningful Use. Throughout this starter kit, it is assumed that the reader has implemented a Meaningful Use Certified product with all of its standard capabilities.

Treatment guidelines and logic used by the CDS

"All patients should be asked if they use tobacco and should have their tobacco-use status documented on a regular basis. The guidelines recommend that physicians advise all tobacco users identified during screening to seriously consider making an attempt to quit and that advice should be "clear," "strong," and "personalized". Physicians should assess the patient's willingness to quit through a discussion of the health benefits of quitting, self-help materials, and referral to community groups. Patients who do not wish to quit should receive motivational interventions (e.g., the 5 R's: relevance, risks, rewards, roadblocks, and repetition)." (1)

User guide for smoking cessation tools

Initiating CDS
Many vendors include CDS for smoking cessation as a standard part of their EHR systems. While many systems have this feature activated by default, some may need user intervention to activate it.

Diagnosis & treatment
Step 1: Document smoking status
Smoking status can be entered in ~~documentation templates.~~ Smoking status is typically entered by the nurse or medical assistant during the intake assessment part of the clinical encounter workflow.

Step 2: Enter smoking status on problem list, if current smoker
If the patient is a current smoker, the next step is to enter tobacco use as a problem on the problem list. The documentation of current tobacco use in the problem list is very important because it is a trigger that gives the provider access to more CDS tools within the EHR. In some practices, this documentation may occur after a workflow transition between the intake assessment and the physician's assessment. Transitions often present a challenge because information can be miscommunicated or not communicated at all. CDS tools can support documentation and communication between providers.

For example, the CDS can provide ~~alerts~~ to recommend further action (i.e., documentation and treatment) to the provider, or it can automatically document tobacco use as a current problem to be assessed later in the clinician's workflow. These types of tools support the documentation process and communication between providers

Step 3: Assess willingness to quit
Once the diagnosis is entered on the problem list, the provider, typically a physician or other senior clinician, assesses willingness to quit. A provider may have a standard list of questions s/he likes to use for this assessment

Step 4: Select treatment recommendations
The provider should select appropriate treatment recommendations based on the patient's willingness to quit. If the patient is willing to quit, next steps should be discussed.

Customization
Providers may be able to customize the CDS at Steps 3 & 4 by adding preferred notes or phrases to the documentation tools.

Monitoring and reporting
There are two tobacco cessation measures that are part of the Meaningful Use – Core Quality Measure Set (NQF 0028a & b). Providers can review their performance on these measures and assess how well the CDS is supporting their work. If the provider scores below the performance threshold, s/he may want to refine the CDS to better suit their workflow or seek more training on how to use the CDS tools to maximum effect. Reports on tobacco cessation measures are a standard part of all Meaningful Use-certified EHRs.

Examples

Example 1: Cerner Ambulatory EMR/EHR (2)

Diagnosis & Treatment

Step 1: Document smoking status:
Smoking status is documented in the "Histories - Social" section. The user can add information to the patient's history from the home screen by clicking on the "Add" button in the "Social History" heading. This will open up the histories form to the social history tab. The user can then add tobacco history and relevant details into a ~~documentation template.~~

Step 2: Enter smoking status on problem list, if current smoker:
The CDS system takes information from the tobacco history section and compares the patient's smoking status to treatment guidelines. If the patient's ~~smoking status is current tobacco use, then the system will automatically enter the problem on the problem list.~~

Entering Current Smoker in Social History places Tobacco User on Problem list

Steps 3 & 4: Assess willingness to quit & select treatment recommendations:

The user can document willingness to quit and treatment recommendations from the same documentation template. The "Smoking Cessation" template has a space to document "Readiness to Quit" (upper right corner). The provider can then document interventions for those who are willing, unwilling, or recently quit in the template. The template provides decision support by displaying a pick-list of treatment recommendations depending on the patient's willingness to quit. The smoking cessation template also has space to document patient education and referrals.

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*Performed on: 04/27/2011 1556 CDT

Smoking Cessati
Education
Education Histor

Smoking Cessation

Attempt to Quit Smoking in Past Year

Established Quit Date

Methods Attempted to Quit Smoking
- None
- Acupuncture
- Cold turkey
- Hypnosis
- Nicotine gum
- Nicotine inhaler
- Nicotine nasal spray
- Nicotine patch
- Oral medication
- Self
- Smoking cessation program
- Other:

Readiness to Quit
- Contemplating quitting
- Not motivated to quit
- Ready to quit
- Refuses to discuss

Interventions for Those Willing to Quit
- Counseling provided
- Extra treatment social support provided
- Follow-Up contact scheduled
- Intra treatment social support provided
- Pharmacotherapy recommended as appropriate
- Quit plan developed
- Supplementary materials provided
- Other:

Interventions for Those Unwilling to Quit
- Benefits obtained from quitting discussed
- Risks of continuing to smoke discussed
- Specific personal reasons for quitting developed
- Things that make quitting difficult discussed
- Other:

Interventions for Those Who Recently Quit
- Problems encountered with quitting discussed
- Smoking cessation benefits reinforced
- Successes discussed
- Other:

Potential Problems for Those Who Recently Quit
- Flagging motivation/feeling deprived
- Lack of support
- Negative mood/depression
- Strong/Prolonged withdrawal symptoms
- Weight gain

Declining Motivation/ Feeling Deprived
- Any use makes quitting more difficult emphasized
- Probed to ensure no periodic tobacco use
- Reassured feelings are common
- Rewarding activities recommended
- Other:

Lack of Support
- Follow-Up visits/telephone calls scheduled
- Helped patient identify sources of support
- Referred to cessation program
- Other:

Negative Mood/Depression
- Counseling provided
- Medications prescribed
- Referral to specialist
- Other:

Strong/Prolonged Withdrawal Symptoms
- Pharmacologic medications combined
- Pharmacotherapy extended
- Other:

Weight Gain
- Importance of healthy diet emphasized
- Pharmacologic therapy explained
- Strict dieting discouraged
- Weight gain common/self limiting explained

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Smoking Cessati
Education
Education Histor

Patient Education

Teaching Method
- Demonstration
- Explanation
- Group
- Printed materials
- Video/Educational TV
- Other:

Barriers To Learning
- None evident
- Acuity of Illness
- Cognitive deficit
- Cultural barrier
- Desire/Motivation
- Difficulty concentrating
- Emotional state
- Financial concerns
- Hearing deficit
- Language barrier
- Literacy
- Memory problems
- Vision Impairment
- Other:

Home Caregiver Present for Session
- Yes
- No
- Other:

|	Verbalizes understanding	Demonstrates	Needs further teaching	Needs practice/supervision	Comment
Risks/Benefits of Smoking Cessation					
Second Hand Smoke					
Smoking Cessation					
Smoking Cessation Programs					

Education Referral Made To
- Behavioral health practitioner
- RN Educator
- Nutrition Educator
- Exercise Physiologist
- Home Health
- APRN
- Physician Specialist
- Primary care physician
- Social services
- Support group
- Other:

Additional Learner(s) Present
- Spouse
- Daughter
- Family member
- Friend
- Grandfather
- Grandmother
- Father
- Mother
- Sibling
- Significant other
- Son
- Other:

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Monitoring & Reporting

Cerner includes an analytics package – Discern Analytics – with its Ambulatory EMR/EHR, which allows users to generate reports on various quality measures. Users can access Discern Analytics from the Explorer menu. Performance reports on smoking cessation measures are available under "Clinical Quality Measures → *Core Measures". Reports can be viewed in grid or chart format. Filters are also available to refine the reports as needed. Below is an example of a bar chart with the smoking cessation measures noted.
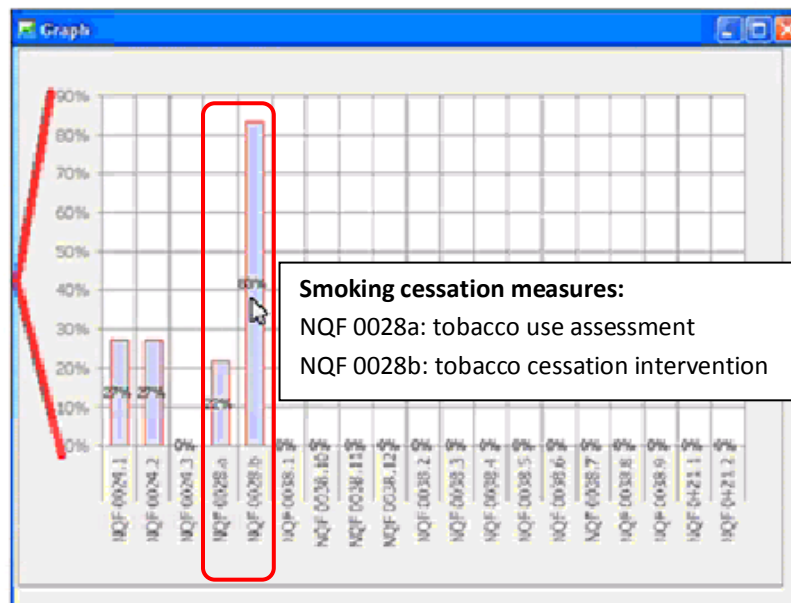
Example 2. NextGen Ambulatory EHR (3)

This example describes how smoking cessation treatment is addressed in the context of chronic condition management.

If current tobacco use is documented during the intake assessment, a provider may choose to provide treatment recommendations in the context of disease management for other chronic conditions because smoking cessation is recommended as part of the treatment for many other chronic conditions like heart disease and diabetes. In the example below, the provider is reviewing recommended care for a diabetes patient who smokes.

Smoking cessation appears in the Recommended Care grid near the bottom of the screen. If the provider double-clicks on the row containing smoking cessation, the 'ngkbm_rec_care_chronic' popup will open.

The provider can complete the information in the popup for smoking cessation education by first entering the goal of "Tobacco Cessation", the status, and compliance, which are selected from lists generated by clicking their respective drop-down arrows. When done, click 'Save' and then the '>' symbol. This will bring you to the next item in the treatment recommendations grid without having to exit the popup.

Summary

The NextGen and Cerner examples illustrate the versatility of CDS for smoking cessation. Apart from providing vendor-specific guidance, these examples can help implementers think about how different CDS intervention types can match work processes for a particular clinical condition.

References

1. University of Michigan Health System. National Guideline Clearinghouse: Smoking Cessation [Internet]. Agency for Healthcare Research and Quality July 20, 2009 cited 06/08/11]. Available from: http://www.guideline.gov/content.aspx?id=9800

2. Cerner Corporation. Training materials for Cerner Ambulatory EMR/EHR (unpublished). Kansas City, MO; Shared with authors May 2011.

3. NextGen Healthcare Information Systems, Inc. Training materials for NextGen Ambulatory EHR (unpublished). Atlanta, GA; Shared with authors May 2011.