

Performance & Final Submission Phase

Project Demonstration

Team Id	NM2023TMID04415
Project Name	Block Chain Technology For Electronic Health Records

INTRODUCTION:

More than 70% of smokers visit a primary care physician annually, making the health care visit an unequalled opportunity to assist smokers willing to make a quit attempt.¹ Despite substantial evidence that brief cessation interventions during primary care visits promote quitting in different populations, smokers consistently leave these appointments without receiving evidence-based counseling and medication.²⁻¹⁰ Among the factors contributing to this lost opportunity is the fact that few primary care patients visit their clinician with tobacco dependence as their chief complaint, and brief clinic visits are consumed by other presenting problems/symptoms. This focus on the “chief complaint” and the “presenting symptoms” rather than on tobacco use (which is often the primary cause of those symptoms), is highlighted by the fact that the average doctor's appointment is only 23.8 minutes for a prepaid visit and 21.0 minutes for a non-prepaid visit.¹¹ This chief complaint focus is also accentuated by the fact that few clinics have systems in

place to efficiently identify and intervene with preventable causes of illness and death, including tobacco dependence.

Design Overview:

The goal of this project was to adapt the electronic medical record of a major Wisconsin healthcare system to better identify and intervene with tobacco users in the context of a busy office visit. From February 2007 to January 2008, key staff members from Dean Health Systems (Dean) and the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI) met regularly to develop modifications to the Epic Systems Corporation electronic medical record (EMR) program already in use at Dean. Once adapted, the EMR modifications were tested in a pilot clinic before more wide-scale implementation in primary care clinics across the Dean system. The working group at these meetings included Dean representatives (a physician champion as well as health education and information technology specialists) and UW-CTRI representatives (the physician Director and members of the outreach staff who work directly with clinics across Wisconsin to implement evidence-based tobacco dependence systems).

Vitals

Taken on 12/19/2007 at 1436

BP: 118/76 SpO2:
Pulse: 88 Weight: 180 lbs (81.65 kg)
Resp: Height: 6' (1.829 m)
Temp:
Source: PF (best):
LMP:

Tobacco Use: Verify Edit
Not Asked
Types: Cigarettes, Cigars, Chewing
Packs/Day: Years: Pack Years: 0
Last verified: <Never verified>

Restore Close F9 Previous F7 Next F8

Figure 1

EMR Screenshot of vitals section containing tobacco identification.

SMOKING CESSATION DHS AMB

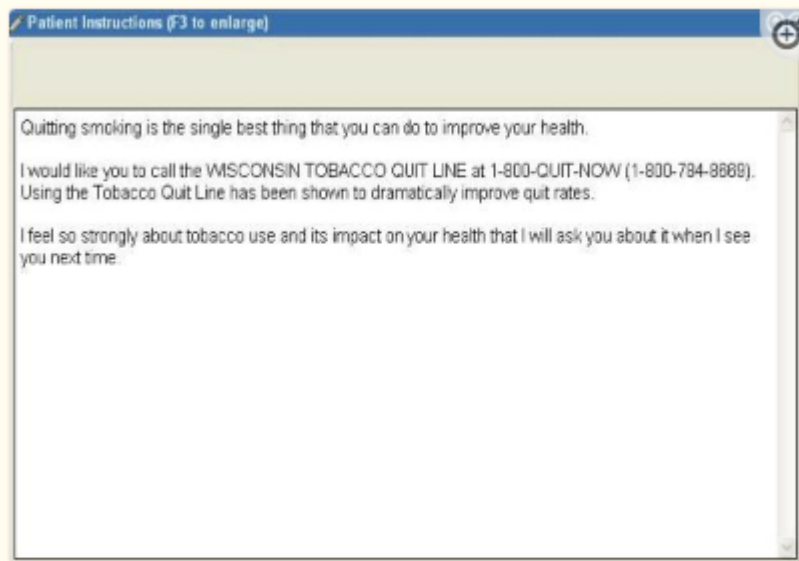
SMOKING CESSATION

- Documentation for Progress Note
 - ☐ SMOKING CESSATION HISTORY (Can be Asked by Rooming Staff)
 - ☐ SMOKING CESSATION DOCUMENTATION
- Provider Medication Choice Recommendation - *Read Only - Do not check box*
 - ☐ SMOKING CESSATION MEDICATION CHART *Rt click and READ ONLY
- Chantix (Varenicline) Prescribing Instructions
 - ☐ CHANTIX PRESCRIBING INSTRUCTIONS *Rt click and READ ONLY
- First Line Medication (Do not order a rescue medication with Chantix) The full 12 week course of medic
 - ☐ CHANTIX STARTING MONTH PAK - DHP Tier 1, 0.5 MG TAB X 11 & 1MG TAB X 42
 - ☐ CHANTIX CONTINUING MONTH PAK - DHP Tier 1, 1 MG BID, QTY=60
- Alternative Medications instead of Chantix
 - ☐ BUPROPION SR 150 MG - DHP Tier 1, ONE TAB DAILY FOR FIRST 3 DAYS, THEN 1 TWICE D
 - ☐ NICOTINE 21 MG/24 HR TRANSDERMAL PATCH # 30, refill x 2
 - ☐ NICOTINE 14 MG/24 HR TRANSDERMAL PATCH #30, refill x 2
 - ☐ NICOTINE 7 MG/24 HR TRANSDERMAL PATCH #30, refill x 2
- Rescue Medication (Not to be used with Chantix)
- Diagnosis - Not covered by Medicare - Must add additional condition diagnoses if available
 - ☐ TOBACCO USE DISORDER
- Use Association button to ATTACH CONDITION DIAGNOSIS
 - ☐ SMOKING CESSATION COUNSELING 3-10 MINUTES - Use for NON-Medical Assistance patient
 - ☐ SMOKING CESSATION COUNSELING > 10 MIN - Use for NON-Medical Assistance patients
- Charge to Use for Medical Assistance patients
- LOS - 25 Modifier Has Already Been Added - Select One

Right click data row to edit. Loading SmartSet succeeded.

Figure 2

EMR Screenshot prompted clinical intervention by primary care clinician for smokers able to pick a quit date.

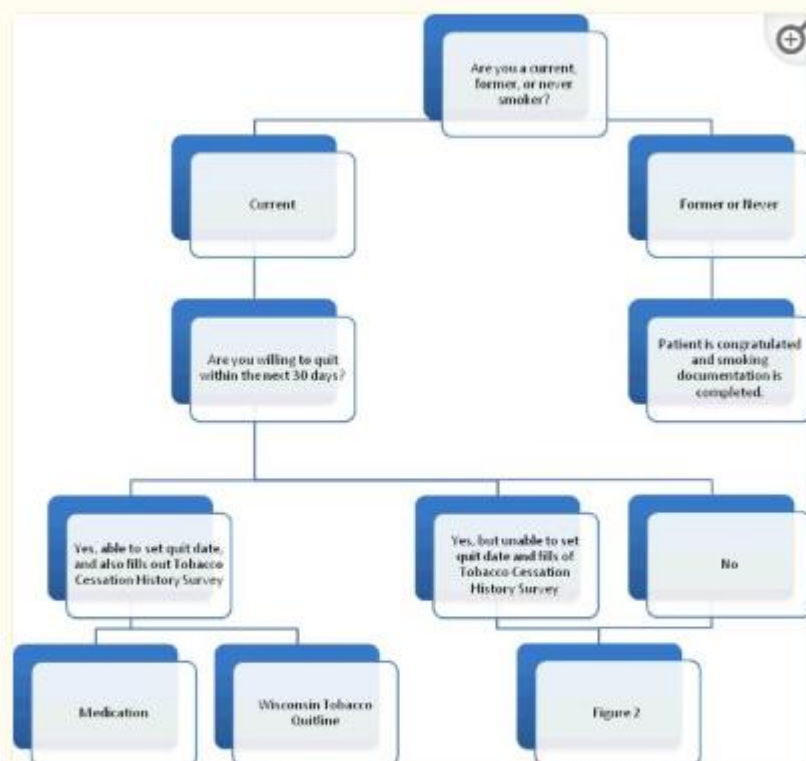


[Figure 3](#)

EMR Screenshot demonstrating printable instructions for patients uninterested in quitting at this time.

Discussion:

In conclusion, this project demonstrated the capacity of a large health care system to implement enhanced tobacco dependence treatment interventions across their primary care clinics, utilizing the potential of the EMR platform. Associated with this enhancement was a statistically significant increase in rates of smoker identification and relatively high rates of clinical intervention with adult patients who smoke. The results are promising regarding the feasibility and potential of the EMR to influence the delivery of tobacco dependence clinical treatments.



[Figure 4](#)

Clinic workflow diagram for adult patients who smoke presenting to primary care clinics.