CEASE: A novel electronic patient directed knowledge translation tool to improve smoking cessation in cancer patients

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- OICR Knowledge Translation Grant
- Cancer Care Ontario
  - Abstract Presented Before = No
Background

• Continued smoking after a cancer diagnosis:
  • worse cancer specific and overall survival
  • increased risk of treatment related toxicity

• Majority of cancer patients are not screened for smoking status or offered cessation programs

• The optimal way to implement cessation programs is not known

• Many centres struggle to implement universal patient assessment and documentation
Purpose

- The purpose of this study was to develop and pilot ‘CEASE’ an electronic, patient directed tool to facilitate screening and smoking cessation among cancer patients attending Princess Margaret Cancer Centre in Toronto, Canada.
Methods

• All new ambulatory cancer patients were given an iPad to screen for smoking status using the CEASE tool.

• **CEASE** is an innovative patient directed electronic platform that consists of three elements:
  • a patient reported smoking assessment tool (**ASK**);
  • brief standardized patient education regarding smoking (**ADVISE**);
  • a simple patient directed automatic referral system (**ASSIST**).

• The development and implementation of CEASE was guided by the Ottawa Model of Research Use (OMRU).
Tobacco Use Survey

There are health benefits to quitting smoking at the time of your treatment and afterwards. The next few questions will ask you about your smoking.

Have you used tobacco products, such as cigarettes, pipes, cigars, or chewing tobacco in the past 6 months?

- Yes
- No
Tobacco Use Survey

There are 10 questions.

Have you smoked or used tobacco products in the past 6 months?

Quitting is an important part of cancer treatment. For people who have cancer or have finished treatment for cancer, the benefits start right away and can last a long time.

We know that quitting can be difficult. Your healthcare team is here to support you.

What are the benefits of quitting smoking and using tobacco products?

- help your body respond better to radiation and chemotherapy treatments
- make your surgery safe and help you heal faster
- improve some of your side effects
- lower your risk of your cancer coming back (recurring)
- lower your risk of getting a second cancer

I want to find out more about the benefits of quitting?  

- Yes  
- No
Tobacco Use Survey

There are a few questions we need to ask...

Have you used any tobacco products in the past 6 months?

Quitting is an important part of cancer treatment. For people who have cancer or have finished treatment for cancer, the benefits start right away and can last a long time.

We know that quitting can be hard, but we’re here to help.

What are the benefits of quitting?
- help your body fight cancer
- make your treatment work better
- improve your quality of life
- lower your risk of cancer recurrence
- lower your risk of dying from cancer

I want to find out more...

Here is some information about each program. You can only choose one program.

Click on the program you want to register in.

- Smokers' Helpline (across Ontario)
  This program can help you:
  - Find support in your neighbourhood
  - Get help from a Quit Coach (someone who gives you support on how to quit)
  - Get support over the phone

- Nicotine Dependence Clinic at the Centre for Addiction and Mental Health (CAMH) (in Toronto)
  This program can help you:
  - Get weekly counseling and treatments to help you quit or reduce your smoking
  - Get private support in-person and over the phone

- UHN Outpatient Pharmacy (in Toronto)
  This program can help you:
  - Get help making a plan to quit
  - Get medications to quit or lower the amount you smoke (if needed)
  - Get private advice from a pharmacist in-person, over the phone or by email

I do not want to be referred, I want to quit on my own

Back Next
Methods

• Prior to CEASE:
  • paper based screening system that relied on health care professionals’ intervention

• The data from paper screening (04-09/15) and CEASE (10/15 – 05/16) is presented:
  • screening rate
  • proportion of current (within 6 months) smokers
  • proportion of smokers interested in quitting
  • referral rates
Oct-Nov 2015
HN, Breast, Gyne
(Pilot Sites)

Nov. 27th, 2015
CNS, Eye,
Endocrine, GI, Skin

Jan 29th, 2016
Haematology, GU,
Lung, Sarcoma
Pre-Implementation

Overall referral rate
24/414=6%

Number Screened
N=2366 (44%)

Smokers
n=414 (17%)

Current smokers
n=276 (67%)

Willing to quit in the next month
n=209 (76%)

Accepted referral
n=18 (9%)**

Recent quitters
n=88 (21%)

Accepted referral
n=0

Unknown
n=50 (12%)

Accepted referral
n=6 (12%)

Non-Smokers
n=1952

Recommended referral
n=58 (17%)*
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**Overall referral rate**
\[
\frac{24}{414} = 6\%
\]

Number Screened
\[
N = 2366 (44\%)
\]

**Smokers**
\[
n = 414 (17\%)
\]

- **Current smokers**
  \[
n = 276 (67\%)
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  - Willing to quit in the next month
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**Recommended referral**
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Post-Implementation

Overall referral rate
136/508=27%

Number Screened
n=3530 (67%)

Smokers
n=508 (14%)

Current smokers
n=345 (68%)

Willing to quit in the next month
n=263 (76%)

Accepted referral (current)
n=114 (43%)**

Recent quitters
n=157 (31%)

Accepted referral
n=19 (5%)

Recommended referral
n=426 (84%)*

Non-Smokers
n=3022

Unknown
n=6 (1%)

Accepted referral
n=3 (50%)
Post-Implementation

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UHN Princess Margaret Cancer Centre
Conclusion

- It is feasible to implement electronic, patient reported smoking status assessments and patient directed tobacco cessation referrals for ambulatory cancer patients in a large urban Cancer Centre.
- Patient driven electronic screening may result in significantly higher referral to cessation services compared to other models.
- Further work is needed to translate CEASE and assess the impact of multi-lingual reporting.
- Data is needed on long term cessation rates with this strategy.