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SCREENING FOR ARECA (BETEL) NUT & QUID USE

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Family Medicine Clerkship

Mentor: Dr. Michelle Dorwart

Site: Community Health Centers of Burlington - Riverside

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INTRODUCTION

AHEC Focus Area: Current and Emerging Health Issues

- Standardized screening tools for patients who use betel quit and areca nut products do not currently exist. Given the increased risk of oral/oropharynx cancer development in this patient population, increasing awareness of this practice could result in decreased morbidity and mortality.¹ The purpose of this project is to (1) increase provider awareness of this cultural practice and its associated health consequences, (2) develop a screening tool, and (3) propose suggested follow-up when concerning lesions are identified.

PUBLIC HEALTH IMPACT

- 10%-20% of the world's population has been estimated to use betel nut.¹
 - It is commonplace in the Asia-Pacific region, most prevalent in India, Sri Lanka, Bangladesh, Myanmar, Taiwan, Cambodia, Vietnam, Laos, China, Guam, Papua New Guinea and in migrant communities from these countries.^{1,7}
- Betel nut and quid are used as part of everyday life as well as in cultural ceremonies in the South Asia Pacific region.^{1,2} Research has also shown this practice is done to self-medicate, particularly among women.³
 - This practice has been shown to increase the risk of oral, oropharynx and stomach cancer.⁴
- The demand for betel-nut has steadily increased and global production of betel-nut exceeded 1,800,000 metric tons in 2020.⁵
- The yearly economic burden of oral cavity, oral pharyngeal, and salivary gland cancer (OC/OP/SG) was estimated to be \$71,732 for people with commercial insurance, \$35,890 for people with Medicare, and \$44,541 for people with Medicaid insurance.⁶

COMMUNITY PERSPECTIVE

Interview with Dr. Elicia Thompson, Director of Dentistry for the Community Health Centers of Burlington reveals that the impact of betel quid and areca nut can result in:

- “From our perspective [dentistry] superficially you see staining. The discoloration is worse than tobacco and there's a lot of gingival recession and movement in the soft tissues that is more advanced than that seen with normal aging. We usually need more office time with patients and see them more often than we would see other patients.”

Interview with Dr. Michelle Dorwart, Associate Medical Director, Community Health Centers of Burlington:

- “It is challenging because it is not a thing that people think to screen for. We don't have any training in our medical education about the use of areca nut and its related products. We can't expect providers to counsel patients because providers aren't even aware this is something people do. We need to increase awareness of this practice so we can adequately screen and help people make informed decisions about their health.”

INTERVENTION AND METHODOLOGY

A pamphlet was created and disseminated to providers within the Riverside location of the Community Health Centers of Burlington. The goal was to increase awareness of this cultural practice and tailor screenings in a culturally competent manner.

The pamphlet included information on:

- Overview of the usage of betel nut and its relationship with cultural practices
- Commonly used terminology to describe this practice
- Intake information that could be asked by medical assistants and recommendations for "my phrase" screening questions
- Provider physical exams
- Resources with more extensive information

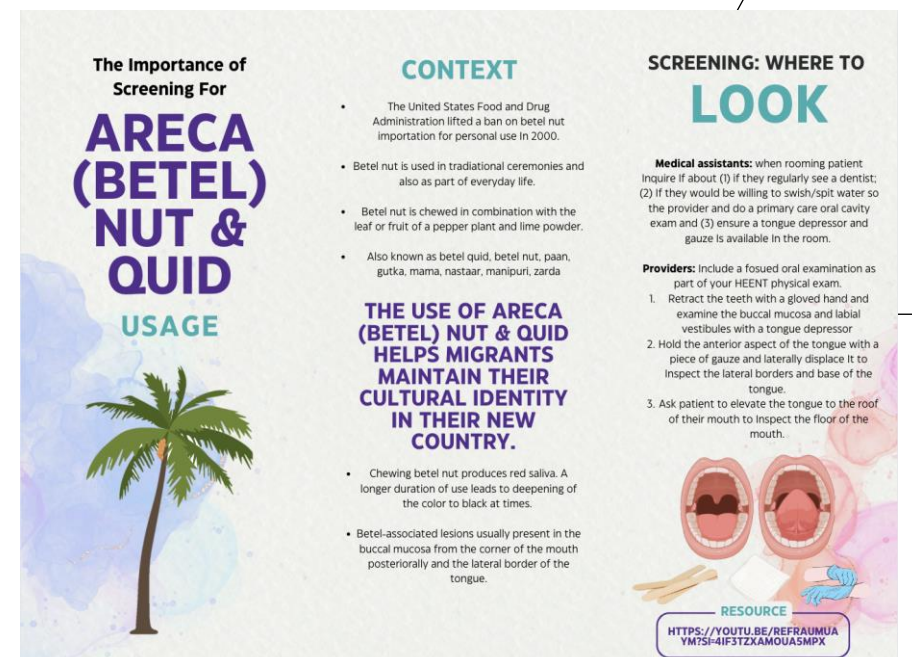


Figure 1: Informational Pamphlet

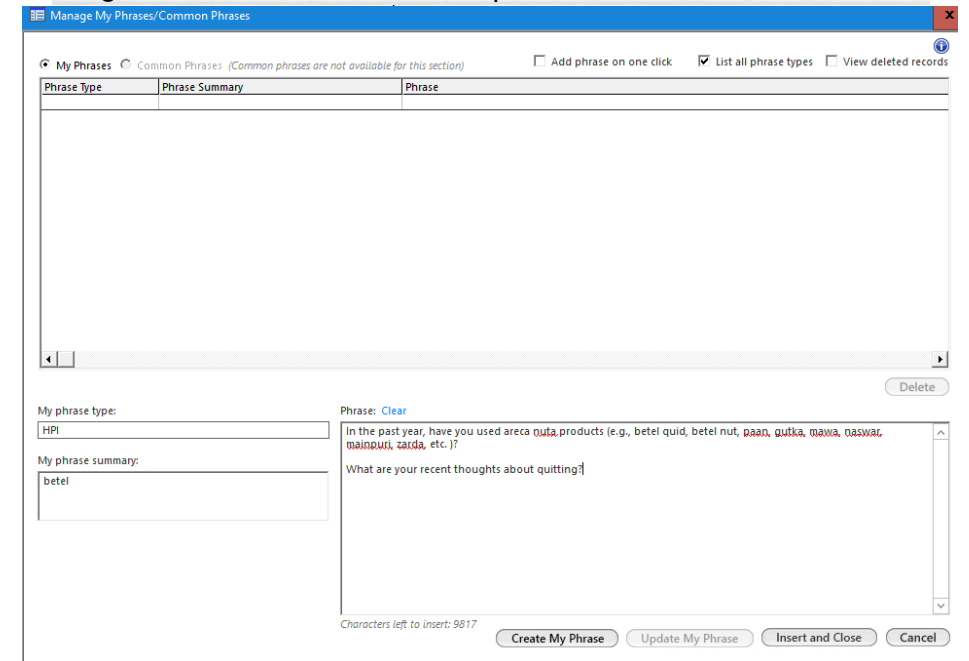


Figure 2: My phrase suggestions

RESPONSE DATA

Response data will be collected via email after providers have received the pamphlet. This second (response) email will contain a survey link to evaluate the effectiveness of the intervention as well as determine if further questions arose from the intervention.

The survey will collect demographic data (Figure 3) on providers in addition to evaluating the effectiveness of the teaching.

The image shows a screenshot of a survey form with the following questions and options:

- Which degree do you hold?** * must provide value
 - MD
 - DO
 - NP
 - PA
 - ND
 - BS/BA/Associates
 - Other
- What is your age (years)?** * must provide value
 - 20-30
 - 31-40
 - 41-50
 - 51-60
 - 60+
- What is your gender?** * must provide value
 - Female
 - Male
 - Transgender Female
 - Transgender Male
 - Non-binary
 - Prefer not to answer
- Ethnicity** * must provide value
 - Hispanic or Latino
 - NOT Hispanic or Latino
 - Unknown / Not Reported
- Race** * must provide value
 - [Dropdown menu]
- How many years have you been in practice?** * must provide value
 - 0-5
 - 6-10
 - 11-20
 - 20+ (over 20 years)

Figure 3: Demographic Data to be collected on REDCap

EVALUATION OF EFFECTIVENESS

A REDCap survey will be disseminated to assess the effectiveness of the intervention provided (Figure 4). A Likert scale will be used to assess how much providers were aware of this practice prior to the pamphlet and what has changed, if anything, because of the intervention.

Given that providers have a limited amount of time, response rates may be lower than desired. People might not be willing to utilize the pamphlet or may feel the recommendations are too time consuming to implement.

Prior to reading the pamphlet, I was aware of areca (betel) nut use among patients <small>* must provide value</small>	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
Prior to reading the pamphlet, I was routinely asking screening questions of areca (betel) nut use among patients. (i.e. frequency, duration, access to dental care, etc.) <small>* must provide value</small>	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
Prior to reading the pamphlet, I routinely examined the oral cavity of patients who use areca (betel) nut <small>* must provide value</small>	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree <input type="radio"/> Not applicable
The pamphlet provided me with useful information <small>* must provide value</small>	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
I will incorporate information from the pamphlet into my practice <small>* must provide value</small>	<input type="radio"/> Strongly Agree <input type="radio"/> Agree <input type="radio"/> Neutral <input type="radio"/> Disagree <input type="radio"/> Strongly Disagree
Please provide feedback on the pamphlet	<input type="text"/>

Figure 4: Data to be collected on REDCap

RECOMMENDATIONS FOR FUTURE INTERVENTIONS

Data from the survey responses can be used to modify and tailor the existing resource provided to optimize the teaching methodology employed.

Future interventions could also include a demonstration of proposed screening examinations listed in the resource provided.

Given the Vermont Department of Health already has a one-pager for the public, an opportunity exists to translate existing materials to languages spoken by the most common users of betel nut. Disseminating this pamphlet to providers beyond the Riverside location of the Community Health Centers of Burlington might prove useful to further increase awareness of this carcinogenic substance.



The Facts About Betel Nut and Tobacco

What is Betel Nut?

Betel nut, or the areca nut, is the seed of an areca palm that grows in tropical parts of the Pacific, Asia and eastern Africa. It is chewed, usually in combination with other substances like tobacco, and is said to have both stimulant and relaxation effects. The practice of chewing betel nut is often passed down in families and is a part of the social culture.



Tobacco and Betel Nut

In some cultures the betel nut is combined with tobacco to chew (as well as a betel leaf and the mineral lime). This increases its addictive properties and its health risks. The risks for certain cancers greatly increase when mixed with tobacco.

Is Betel Nut a Problem in the US?

Yes! Betel nut is common in the US among immigrant populations. In Vermont, its popularity is growing among immigrants who bring the practice from their home culture.

What can you do?

The best thing you can do for your health is quit. If you know someone who chews betel nut and tobacco, talk to them about the dangers and refer them to the 802Quits website and Quitline.



Multiple health Risks

Betel nut may be marketed as a cure of indigestion or taken for mild pain-killing effects, but it has other far more dangerous effects on your health.

These include certain cancers, tooth damage, and risk to babies if chewed during pregnancy.

- Betel nut and tobacco can cause precancerous lesions (wounds) in the mouth. These can appear as red or white patches in the mouth or throat.
- Betel nut and tobacco can cause cancers.
 - Oral cancer – Cancer in the lip, mouth, tongue and pharynx
 - Cancer of the esophagus (throat)
 - Stomach cancer
- When combined, Betel nut and tobacco increase the risk of pregnancy problems
- Betel nut and tobacco can cause tooth damage, staining teeth black or even causing them to fall out.
- Betel nut and tobacco can cause nicotine addiction, one of the hardest addictions to quit.

Vermont Department of Health. (2014)

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