

## **SCREENING UNIT**

### **Mammography for Breast Cancer Screening in Women**

#### **Objectives:**

The principle objective is to learn to apply recommendations on screening to clinical practice. This includes:

1. Understanding the pre-requisites and various aspects for an evidence-based screening program;
2. Determining whether the recommendations are valid;
3. Understanding the recommendations;
4. Determining whether the recommendations will help you to answer the clinical question.

#### **Assignment:**

1. Read the attached scenario.
2. Read the Cochrane systematic review.
3. Read the chapter on Screening in the User's Guides (see below)
4. Critically appraise the recommendations using the accompanying worksheet, and your previously gained knowledge on intervention studies, diagnostic tests, systematic reviews, harm and guidelines.

#### **Clinical Scenario:**

You are a family physician providing preventive services. You trained in Canada, where mammography is not routinely recommended for screening in women age 40-49 due to a large well done Canadian RCT which did not show benefit. You recently relocated to the US and were surprised to learn of the different practice patterns. The US Preventive Services Task Force recently recommended against mammography screening in this age group. You are amazed by the controversy in the press and among your colleagues. It is your turn to present rounds to the group, so you decide to see if you can find a systematic review addressing the question.

A first look in the literature reveals a recent systematic review by Cochrane on the question. You decide to consider the evidence and the USPSTF recommendations.

#### **Enclosed Materials:**

1. Guyatt G, Roman Jaeschke, Mark Wilson, Victor Montori, and Scott Richardson. What is evidence-based medicine. In Guyatt G, Rennie D, Meade MO, Cook DJ. Users' Guides to the Medical Literature: A Manual for Evidence-based Clinical Practice. 3rd ed. New York, NY: McGraw-Hill; 2015. Moving from Evidence to Action Ch. 26 – 29, Pgs. 529 – 625.
2. Worksheet for the evaluation of an article on screening.
3. Gotzsche PC, Nielsen M, Screening for breast cancer with mammography (review), The Cochrane Collaboration, 2009 Issue 4, Published John Wiley and Sons.
4. U.S. Preventive Services Task Force. (2009, November 17). Screening for Breast Cancer: U.S. Preventive Services Task Force Recommendation Statement. *Annals of Internal Medicine* 151(10), 716-726. Available from: <http://www.annals.org/content/151/10/716.full>

## **Summary of USPSTF Recommendations**

The USPSTF recommends against routine screening mammography in women aged 40 to 49 years. The decision to start regular, biennial screening mammography before the age of 50 years should be an individual one and take into account patient context, including the patient's values regarding specific benefits and harms. (Grade C recommendation)

The USPSTF recommends biennial screening mammography for women between the ages of 50 and 74 years. (Grade B recommendation)

The USPSTF concludes that the current evidence is insufficient to assess the additional benefits and harms of screening mammography in women 75 years or older. (I statement)

The USPSTF concludes that the current evidence is insufficient to assess additional benefits and harms of either digital mammography or magnetic resonance imaging instead of film mammography as screening modalities for breast cancer. (I statement)

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is at least moderate certainty that the net benefit is small.	Offer or provide this service only if other considerations support the offering or providing the service in an individual patient.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.