DIALOGUE FOR ACTION® ON CANCER SCREENING AND PREVENTION

prevent cancer® FOUNDATION

David P. Chemlow, M.D.

Disclosure of Commercial Interest

It is the policy of the Prevent Cancer Foundation and the Nurse Practitioners in Women's Health that the education presented at CE-certified activities will be unbiased and based on scientific evidence. To help participants make judgments about the presence of bias, the Prevent Cancer Foundation provides information that faculty have disclosed about financial relationships they have with commercial entities that produce or market products or services related to the content of this educational activity.

There will not be any off-label and/or investigational use of products discussed within the content at any of the presentations at this conference.

Breast Cancer Screening Guidelines: How to Navigate the Differences

Dr. David Chemlow has disclosed that he has received a stipend as editor and chief of Medcape Reference OB/GYN textbook.

NPWH NURSE PRACTITIONERS IN WOMEN'S HEALTH *Caring for Women*

VCU Health System Virginia Commonwealth University

MCV Hospitals and Physicians

Breast Cancer Screening Guidelines: How to Navigate the Differences

David Chelmow, MD
Virginia Commonwealth University

2019 Dialogue for Action on
Cancer Screening and Prevention

Disclosures

- No financial conflicts of interest
- ACOG representative to Breast Screening Consensus Conference
- Co-authored ACOG Practice Bulletin on Breast Cancer Screening

Learning objectives

- Review differences between US screening recommendations
- Discuss difficulties achieving consensus
- Present framework for guiding patients

Context – What is the rest of the world doing?

Table 2 Recommendations for breast cancer screening with mammography, in order of overall healthcare spending

Country	Organization (Type)	Year	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
United States	US Preventive Services Task Force (A)	2016								
United States	American Cancer Society (B)	2015								*
United States[1]	American College of Obstetrics & Gynecology (C)	2017								*
United States	American College of Radiology (C)	2016								
Luxembourg	Ministry of Health (A)	NA								
Switzerland[2]	League Against Cancer (B)	2016								
Norway	Cancer Registry of Norway (B)	2010								
Netherlands[3]	NIPHE (A)	2017								
Germany	Federal Joint Committee (A)	2015								
Sweden[4]	National Board of Health and Welfare (A)	2013								
Ireland	National Screening Service (A)	NA								
Austria	Austrian Cancer Aid Society (B)	2014								
Denmark	National Board of Health (A)	2014								
Belgium	Foundation Against Cancer (B)	2017								
Canada[5]	CTFPHC (A)	2011								
Australia	Australian Government Department of Health (A)	2015								
France[6]	National Cancer Institute (A)	2015								
Japan[7]	National Cancer Center (A)	2016								
Iceland	Icelandic Cancer Society (B)	NA								
UK	UK National Screening Committee (A)	2012								
Finland	Cancer Society of Finland (B)	2010								
New Zealand	Ministry of Health (B)	2014								
Italy	National Screening Observatory (A)	2015								
Spain	Cancer Strategy of National Health System (A)	2009								

Recommend:		Recommend selectively:		Do not recommend		Insufficient evidence:	
Every 3 years:		Every 2 years:		Every 1 year:			

Ebell. Public Health Reviews. 2018

A 42 year old woman presents for mammography screening. . .

Internal Med
ACS

OB/GYN
ACOG

Family Med
USPSTF

Context – What is likely happening:

Result Type:	BI: Mammogram, Digital Scr, Bilat w/ CAD
Date:	March 05, 2019 09:35 EST
Status:	Auth (Verified)
Subject:	BI: Mammogram, Digital Scr, Bilat w/ CAD
Author:	ALLISON MD, KELLEY Z on March 05, 2019 09:52 EST
Electronically Signed By:	ALLISON MD, KELLEY Z on March 05, 2019 09:52 EST
Encounter info:	706174115695, VCUHS, OP, 03/05/2019 - 03/05/2019

Reason For Exam
Screening

Report
Ordering Physician:CHELMOW MD, DAVID P

BREAST IMAGING CONSULTATION: BILATERAL DIGITAL SCREENING MAMMOGRAM WITH 3-D TOMOSYNTHESIS AND COMPUTED AIDED DETECTION (CAD)

Baseline

In conjunction with 2-D images, tomosynthesis, C-Views, and computed aided detection (CAD) were used.

FINDINGS:
There are scattered areas of fibroglandular density. No masses, malignant type calcifications, or other suspicious abnormalities are identified.

IMPRESSION:
No specific mammographic evidence of malignancy. Next screening mammogram is recommended in one year.

BI-RADS: 1 - Negative

Dictated By: Kelley Z. Allison, M.D., Attending Physician
Verified By: Kelley Z. Allison, M.D., Attending Physician

US Screening Guidelines

Table 1. Recommendations for Breast Cancer Screening in Average-Risk Women

	American College of Obstetricians and Gynecologists	U.S. Preventive Services Task Force	American Cancer Society	National Comprehensive Cancer Network
Clinical breast examination	May be offered* every 1–3 years for women aged 25–39 years and annually for women 40 years and older.	Insufficient evidence to recommend for or against.†	Does not recommend‡	Recommend every 1–3 years for women aged 25–39 years. Recommend annually for women 40 years and older.
Mammography initiation age	Offer starting at age 40 years.§ Initiate at ages 40–49 years after counseling, if patient desires. Recommend by no later than age 50 years if patient has not already initiated.	Recommend at age 50 years.‖ Age 40–49 years: The decision to start screening mammography in women before age 50 years should be an individual one.¶	Offer at ages 40–45 years.¶ Recommend at age 45 years.#	Recommend at age 40 years.
Mammography screening interval	Annual or biennial§	Biennial‖	Annual for women aged 40–54 years‡ Biennial with the option to continue annual screening for women 55 years or older‡	Annual
Mammography stop age	Continue until age 75 years. Beyond age 75 years, the decision to discontinue should be based on a shared decision-making process that includes a discussion of the woman's health status and longevity.	The current evidence is insufficient to assess the balance of benefits and harms of screening mammography in women 75 years and older.†	When life expectancy is less than 10 years‡	When severe comorbidities limit life expectancy to 10 years or less

*Offer in the context of a shared, informed decision-making approach that recognizes the uncertainty of additional benefits and harms of clinical breast examination beyond screening mammography.

†Category I recommendation.

Clinical Breast Exam

- NCCN – perform annually
- ACOG – "may be offered"
- USPSTF – Insufficient evidence to recommend for or against
- ACS – Does not recommend

How did ACS and USPSTF get to different places?

- Reviewed similar data
  - Lots of agreement on many points
- Different processes
- Grouped ages differently in analysis
- Weighted risks and benefits differently

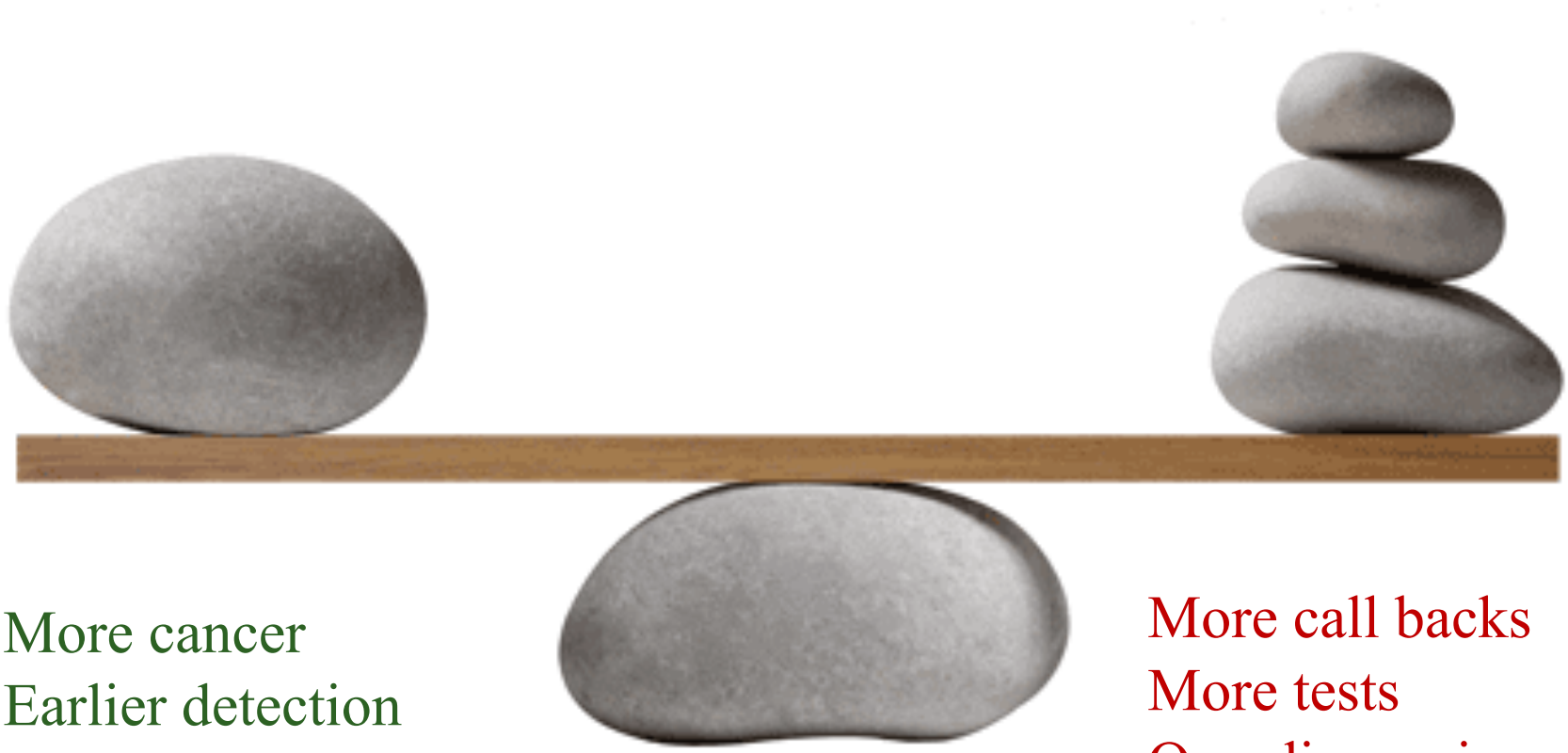
Table 1. Breast Cancer Deaths Avoided (95% CI) per 10 000 Women Screened by Repeat Screening Mammography Over 10 Years: Data From Randomized, Controlled Trials*

Variable	Ages 40-49 y	Ages 50-59 y	Ages 60-69 y	Ages 70-74 y
Breast cancer deaths avoided	3 (0-9)	8 (2-17)	21 (11-32)	13 (0-32)

* All women did not have 100% adherence to all rounds of screening offered in the randomized, controlled trials.

USPSTF Recommendation Statement Screening for Breast Cancer. Ann Int Med, 2016;164:279-96.

Trade-offs with increased screening



More cancer
Earlier detection

More call backs
More tests
Overdiagnosis

Shared decision making

- Similarities
  - Both allow initiation at age 40
  - Both clearly recommend through age 75
  - Both recommend biennial after age 55
  - Both no less frequent than Q2 y
- Differences
  - USPSTF does not include annual screen
  - ACS life expectancy based stopping vs age

Table 3. Lifetime Benefits and Harms of Biennial Screening Mammography per 1000 Women Screened: Model Results Compared With No Screening*

Variable	Ages 40–74 y	Ages 50–74 y
Fewer breast cancer deaths, *n*	8 (5–10)	7 (4–9)
Life-years gained	152 (99–195)	122 (75–154)
False-positive test results, *n*	1529 (1100–1976)	953 (830–1325)
Unnecessary breast biopsies, *n*	213 (153–276)	146 (121–205)
Overdiagnosed breast tumors, *n*	21 (12–38)	19 (11–34)

* Values reported are medians (ranges).

USPSTF Recommendation Statement Screening for Breast Cancer. Ann Int Med, 2016;164:279-96.

Table 4. Lifetime Benefits and Harms of Annual Versus Biennial Screening Mammography per 1000 Women Screened: Model Results Compared With No Screening*

Variable	Ages 50–74 y, Annual Screening	Ages 50–74 y, Biennial Screening
Fewer breast cancer deaths, *n*	9 (5–10)	7 (4–9)
Life-years gained	145 (104–180)	122 (75–154)
False-positive test results, *n*	1798 (1706–2445)	953 (830–1325)
Unnecessary breast biopsies, *n*	228 (219–317)	146 (121–205)
Overdiagnosed breast tumors, *n*	25 (12–68)	19 (11–34)

* Values reported are medians (ranges).

USPSTF Recommendation Statement Screening for Breast Cancer. Ann Int Med, 2016;164:279-96.

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†Category I recommendation.

Shared Decision Making

- Acknowledges limited information on patient value of harms
- Embraces individual valuation of benefits and harms
- Limited tools for counseling, life expectancy estimation
- Limited time to counsel

How to navigate the differences?

- Shared decision making
  - Within scope of single guideline
  - Consider ACOG to allow full flexibility within scope of major guidelines

- Make sure patients understand potential benefits and harms