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Primary Care Internal Medicine

October 2017

Screening and Vaccination Update for Primary Care: Best Practices Among the Controversies

What This Talk Is Not:

- Review of all USPSTF and AICP recommendations
- Comprehensive deep dive into screening and vaccination practices
- Complete list of all controversies in screening & vaccination practices

By The End of This Talk, You Will Be Able To:

- Describe the challenges of annual screening faced by the primary care clinician.
- Engage in a discussion about several controversies in current cancer screening practices in primary care.
- Examine your vaccination practices and find an area for improvement.

Opinion | CONTRIBUTING OP-ED WRITER

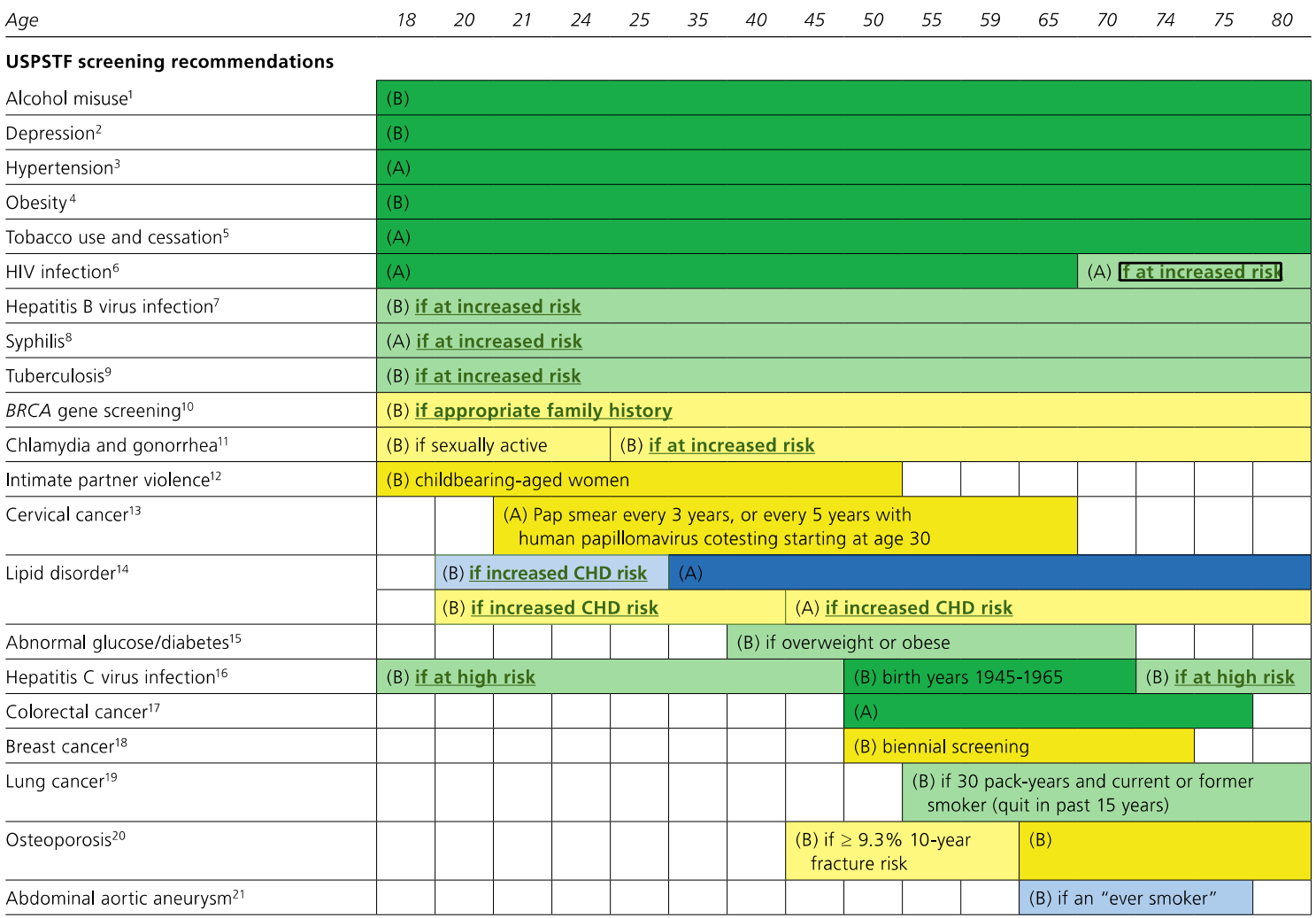
Skip Your Annual Physical

Ezekiel J. Emanuel JAN. 8, 2015

Adult Preventive Health Care Schedule: Recommendations from the USPSTF (as of May 15, 2017)

To be used in conjunction with USPSTF recommendation statements for additional details (see accompanying tables and references)

Only grade A/B recommendations are shown



Am Fam Physician. 2016 May 1;93(9):738-740.

Challenges for the Primary Care Clinician

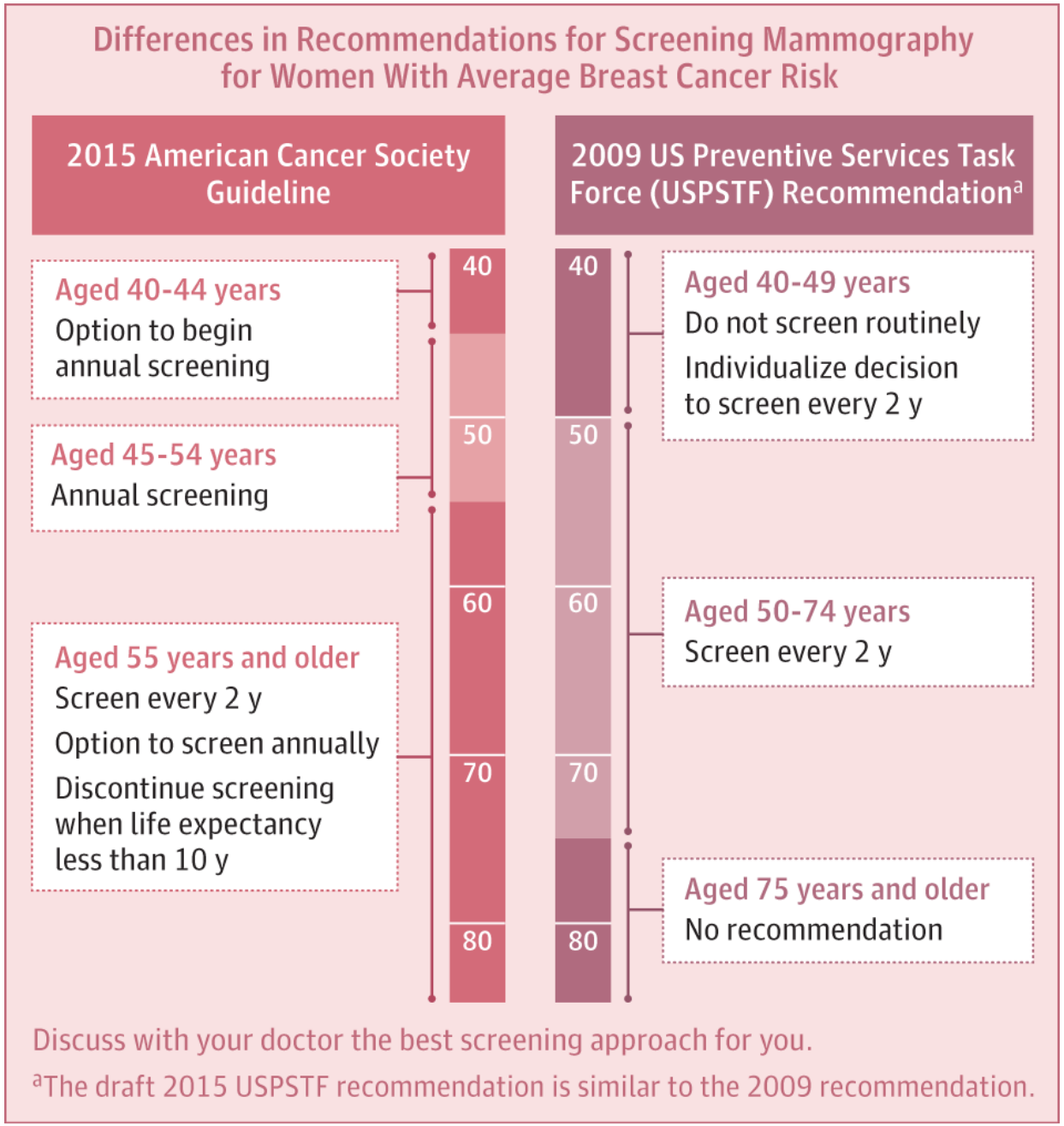
- Risk of harm to patient from screening
- Risk of harm to patient from NOT screening
- Malpractice claims
- Multiple societies and groups weighing in + lay press
- Increasing importance of patient satisfaction
- Shared decision making
- TIME!
- Documentation
- Changing recommendations over time

-Neil Skolnik;
JAMA Intern Med. 2017;177(9):1253

“Good medical advice moves in a zigzag path toward truth, and those who offer it must not pretend to know all the answers. Figuring out how to communicate these parallel truths is daunting."

Best Practices & Controversies in Cancer Screening

Breast CA Screening



JAMA. 2015;314(15):1658

Most of Us Not Following This:

- Everyone knows someone…
- Higher risk women
- Breast density
- CBE is a nice time to chat

Breast Cancer Screening

Definitely Beneficial:

- Mammo every 2 years women 50-70
- 3D Digital mammo for patients with high breast density

Maybe Beneficial:

- Mammo every 2 years women 40-49 with SDM
- BRCA testing for high risk women
- Mammo + MRI for highest risk women

Probably not beneficial

- Clinical breast exam
- Self-breast exam
- Mammo >70, especially if life expectancy <10 years

Am Fam Physician. 2016 May 1;93(9):738-740. JAMA. 2015;314(15):1658

Cervical CA Screening

Pap smear screening schedules			
	USPSTF	**ASCCP**	**ACOG**
When to start screening	21 yo	21 yo	21 yo
How frequently should you test?			
Age 21–29 yo (pap smear alone if nml)	Every 3 y	Every 3 y	Every 3 y
Age 30 & older			
Pap smear alone if nml	Every 3 y	Every 3 y	Every 3 y
Pap smear w/ HPV cotesting	Every 5 y	Recommended, but no more frequently than every 5 y	Every 5 y as recommended strategy
Age to stop	65 yo if adequate screening	65 yo w/ adequate screening & no h/o CIN 2+ in last 20 y	65 yo if adequate screening & no h/o CIN 2, CIN 3, or adenoCa in situ or cervical cancer in last 20 y
After hysterectomy including cervical removal w/ no h/o CIN 2–3, adenoCa in situ, or prior cervical cancer in last 20 y	No pap screening needed, but annual exam for vaginal & vulvar dz should continue		
HPV vaccinated	No change in screening		
HIV+ women, immunocomp, or in utero DES exposure	Pap twice in 1st year after dx & then annually thereafter; referral to colposcopy w/ ASCUS or high-level dysplasia (*Obstet Gynecol* 2010;116:1492)		

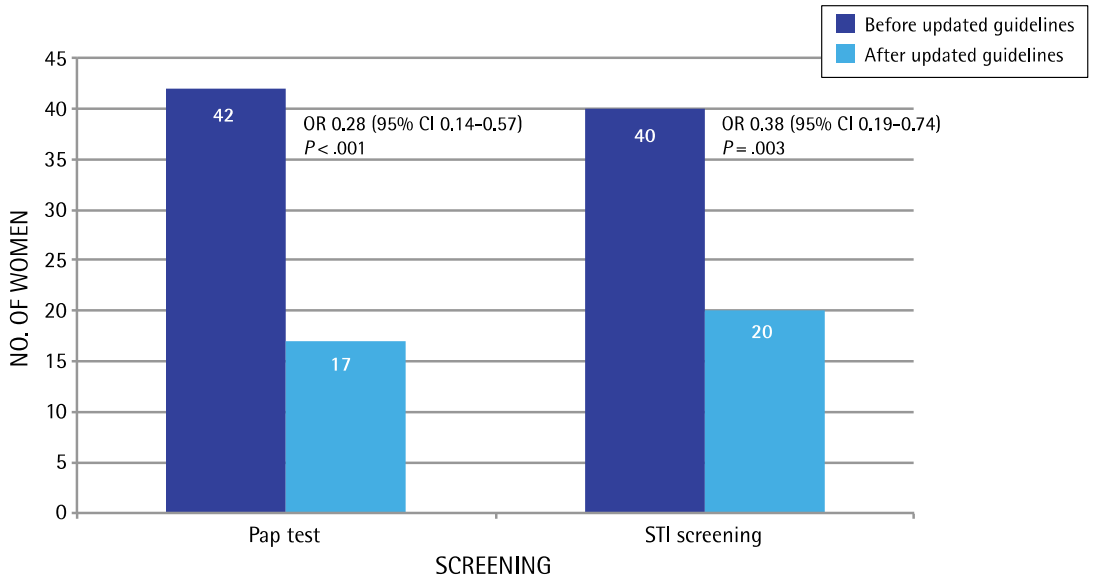
***J Low Genit Tract Dis* 2012;16:175**

Cervical CA Screening: Less Controversy

- Unintended consequences:
  - Decreased STI screening
  - If I am not examining their pelvis…will they talk to me about GYN-related issues?
- Can’t miss – not all hysterectomies include the cervix!
- Question: When to stop in women with h/o GYN malignancy
  - 20 years later can return to normal guidelines

100 Women in 5 FM Practices in Ontario 1 year after 2012 guidelines

Figure 2. Number of women who received Pap tests and STI screening before and after the release of the updated guidelines



OR—odds ratio, Pap—Papanicolaou, STI—sexually transmitted infection.

Can Fam Physician 2015;61:e459-66

Prostate Cancer Screening

Table 1. Prostate Cancer Screening Recommendations

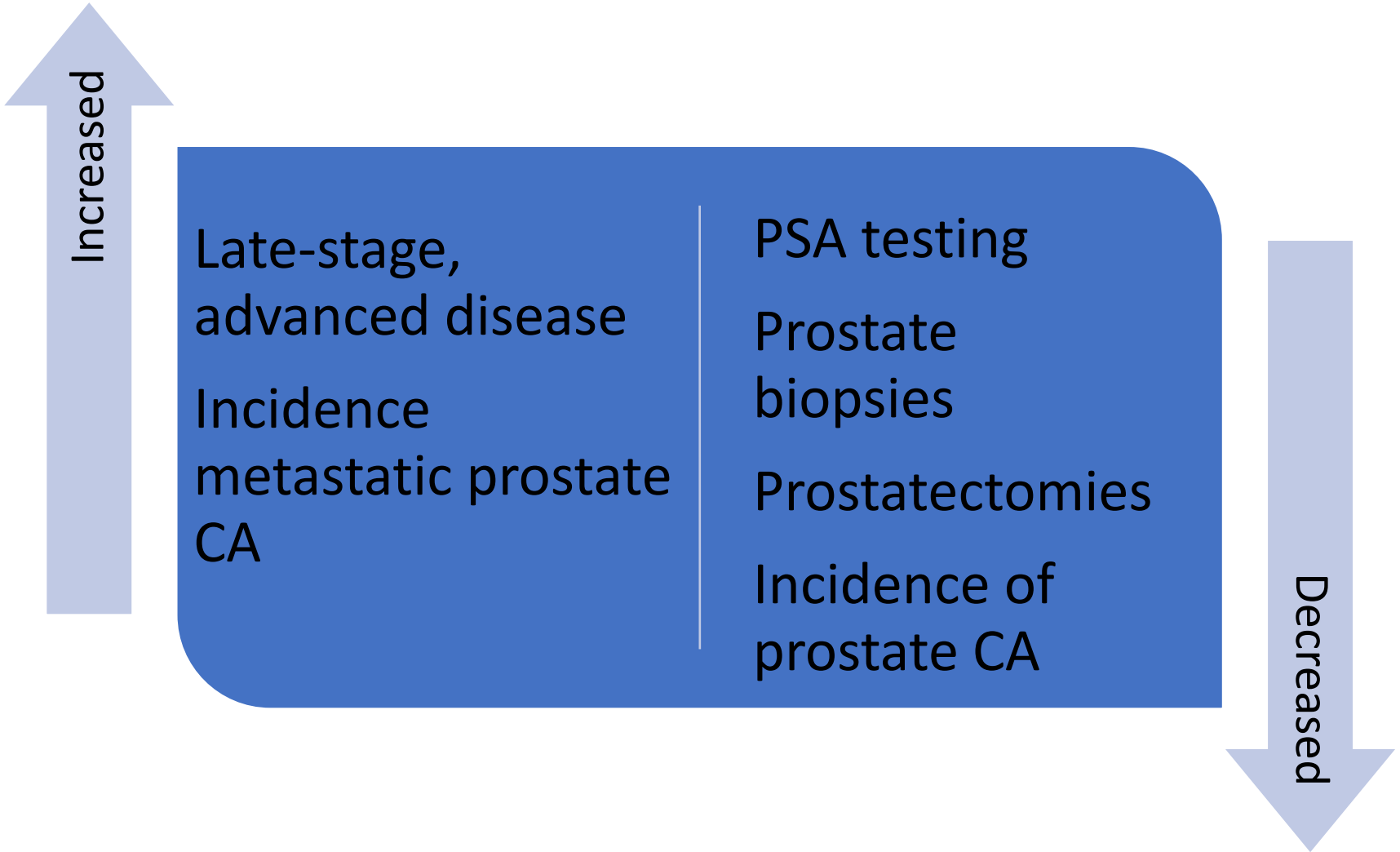
Organization	*Recommendations*
American Academy of Family Physicians (2012)[32]	Do not perform PSA-based screening for prostate cancer.
American Cancer Society (2010)[36]	Beginning at 50 years of age, asymptomatic men who have at least a 10-year life expectancy should have an opportunity to make an informed decision with their physician about screening. Men at higher risk, including black men and men who have a first-degree family history (father or brother) of prostate cancer diagnosed before 65 years of age, should receive this information beginning at 45 years of age. When screening is performed, PSA testing should be used with or without digital rectal examination. Frequency of testing depends on PSA level.
American College of Physicians (2013)[10]	Inform men between 50 and 69 years of age about the limited potential benefits and substantial harms of screening. Do not screen men who do not express a clear preference for it. Do not screen men older than 69 years or men with a life expectancy of less than 10 to 15 years.
American Urological Association (2013)[37]	Use shared decision making for men 55 to 69 years of age. Individualize screening decisions for higher-risk men 40 to 54 years of age. Do not screen men younger than 40 years, older than 70 years, or who have a life expectancy of less than 10 to 15 years.
U.S. Preventive Services Task Force (2012)[31]	Do not perform PSA-based screening for prostate cancer.

PSA = prostate-specific antigen.

Information from references 10, 31, 32, 36, and 37.

Am Fam Physician. 2015 Oct 15;92(8):683-688.

So We Did That…And Then



Nat Rev Urol. 2017 January ; 14(1): 26–37 Current Opinion in Urology: May 2017 - Volume 27 - Issue 3 - p 205–209

https://screeningforprostatecancer.org/

Men ages 55–69

The decision about whether to be screened for prostate cancer should be an individual one. The USPSTF recommends that clinicians inform men ages 55 to 69 years about the potential benefits and harms of prostate-specific antigen (PSA)–based screening for prostate cancer. Screening offers a small potential benefit of reducing the chance of dying of prostate cancer. However, many men will experience potential harms of screening, including false-positive results that require additional workup, overdiagnosis and overtreatment, and treatment complications such as incontinence and impotence. The USPSTF recommends individualized decisionmaking about screening for prostate cancer after discussion with a clinician, so that each man has an opportunity to understand the potential benefits and harms of screening and to incorporate his values and preferences into his decision.

C Recommendation

Men age 70 and older

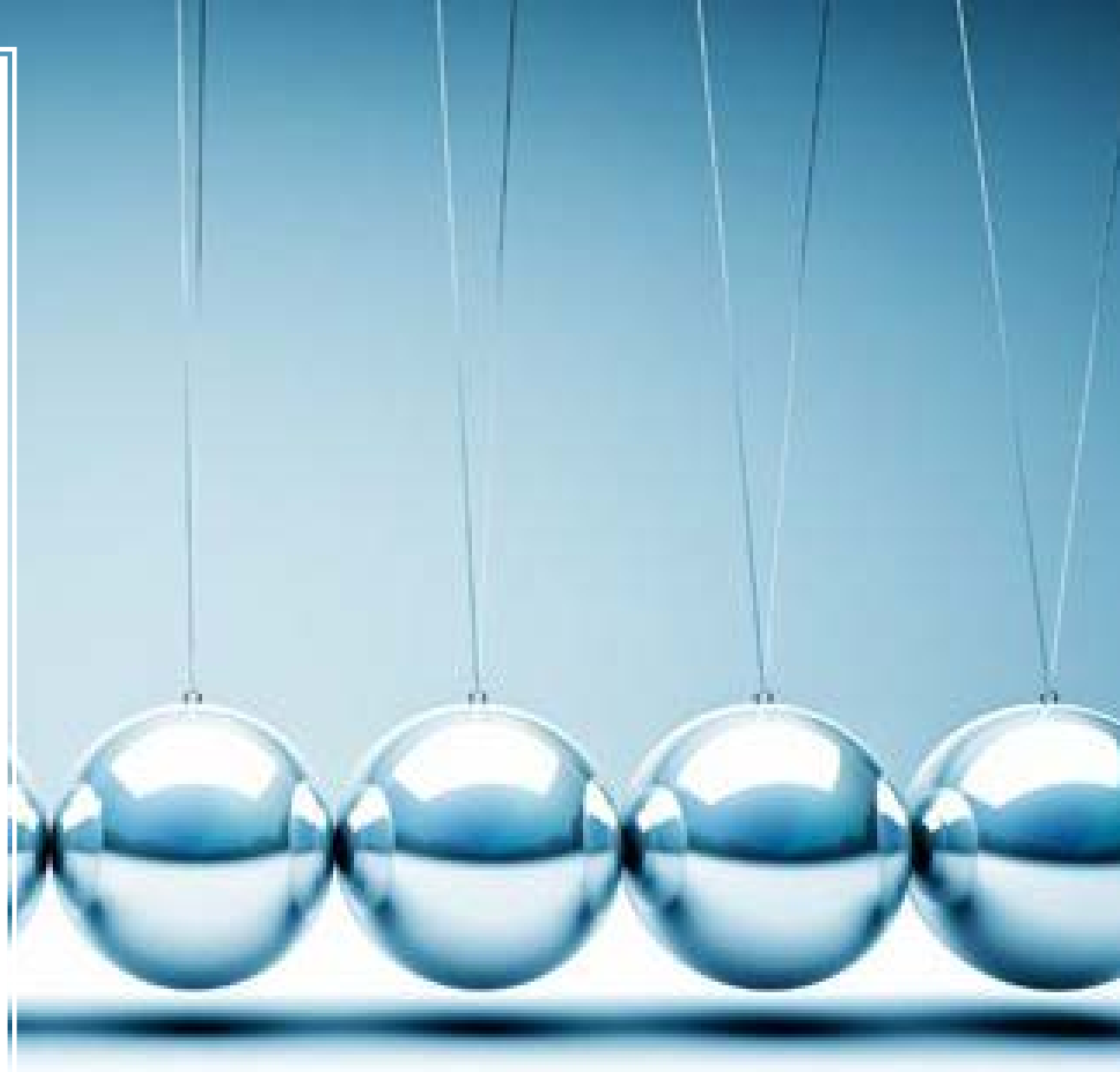
The USPSTF recommends against PSA-based screening for prostate cancer in men age 70 years and older.

D Recommendation

Now What?

What Does This Look Like in Practice?

- Discuss each year, starting at age 50 for average risk men
- Ask about symptoms each year
- Consider baseline in 50s, stratify
- Stop after age 70
- High PSA; MRI>biopsy to limit risk
- Consider repeat interval testing based on baseline PSA or symptoms
- Use SDM aids, patient education videos; document discussions



Lung Cancer Screening

AAFP

- Recommends against

ACS

- 55-74 years with 30+ pack year history
- Current smoker or quit w/in 15 years

USPSTF

- 55-80 years with 30+ pack year history
- Smoking cessation <15 years

https://www.cms.gov/medicare-coverage-database/details/nca-proposed-decision-memo.aspx?NCAId=274

Controversies

- Insurance coverage? (~$300 per scan)
- Health equity
- Follow-up of Incidentalomas, GGOs, nodules, etc
  - Higher risk in COPD patients
- Cost-effective?
- Radiation risk?
- How does this impact smoking cessation?

Colorectal Cancer Screening

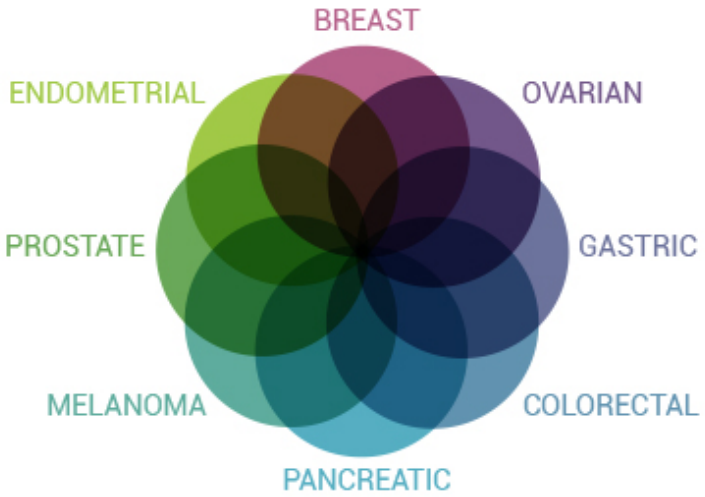
	Fecal Occult Blood	Flexible Sigmoidoscopy	Colonoscopy	Multitarget FIT-DNA	Computed Tomographic Colonography
USPSTF[13]					
Recommendation	Yes with highly sensitive gFOBT or FIT	Yes	Yes	Yes	Yes
Interval	Annual	Every 5 years alone Every 10 years with annual FIT	Every 10 years	Every 1 year Every 3 years	Every 5 years
ACS/ACR/MSTF-CRC (2008)[15]					
Recommendation	Yes with highly sensitive test (FIT)	Yes	Yes	Yes	Yes
Interval	Annual	Every 5 years	Every 10 years	Uncertain	Every 5 years
ACP Guidance Statement (2012)[16]					
Recommendation	Yes with gFOBT or FIT	Yes	Yes	Yes	Yes
Interval	Annual	Every 5 years	Every 10 years	Uncertain	Every 5 years

JAMA. 2016;316(20):2135-2145

CRC Screening Controversies

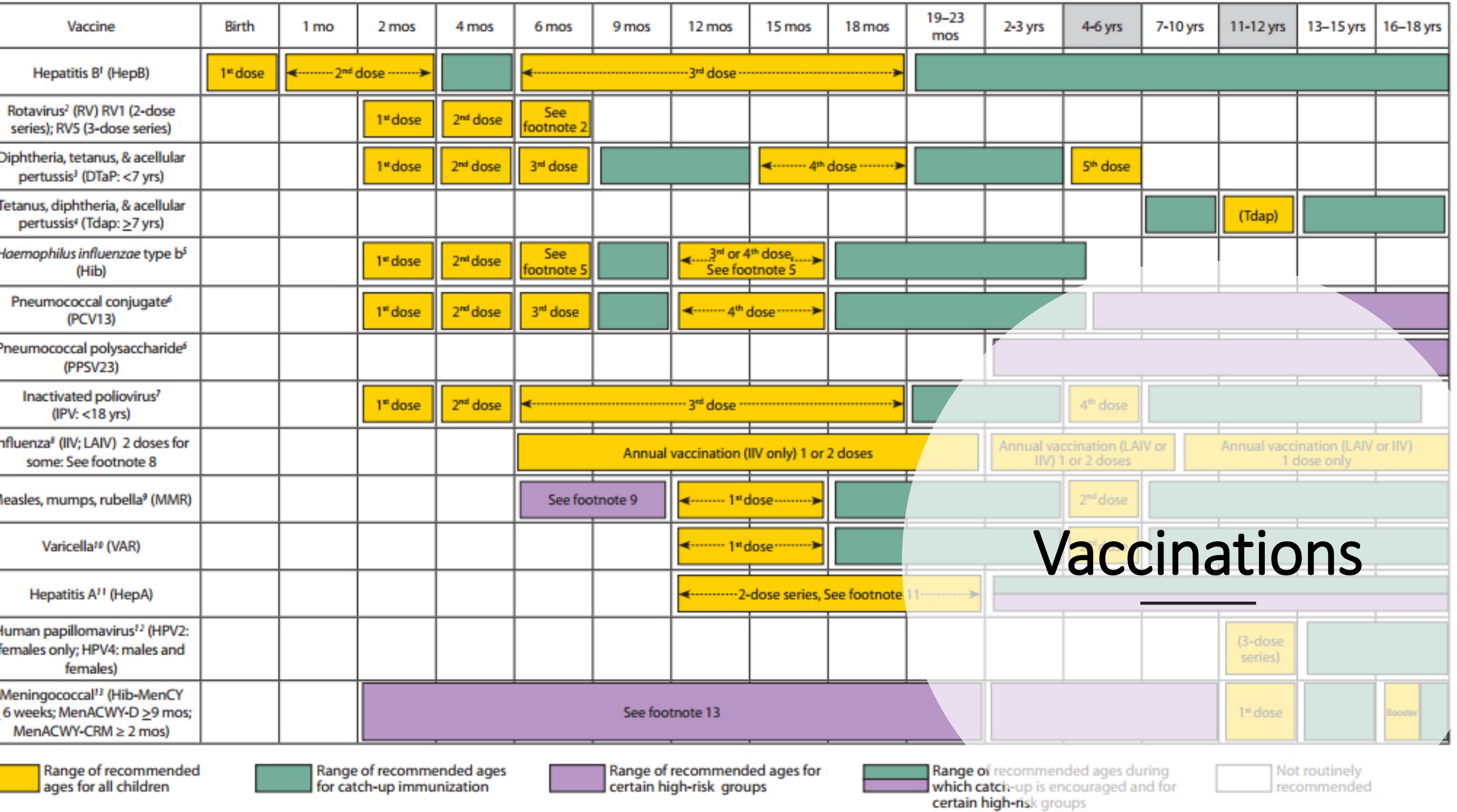
- Cologuard? Seems ok!
- Offer more than 1 option to increase likelihood it will happen
- Making sure it happens – follow-up, notification systems

cologuard®



MYRIAD myRisk®
Hereditary Cancer

What do I do when my patient comes in with this?



Vaccinations

Influenza 2017-18 Updates

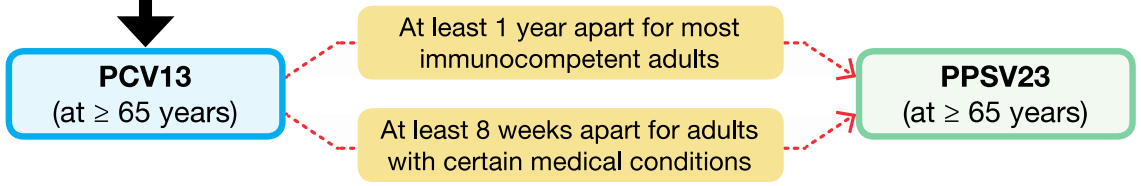
- Efficacy 2016-17 42%
- Trivalent – H1N1, H3N2, B virus
- Quadrivalent – H1N1, H3N2, 2 strains B virus
- Fluzone High Dose good idea for patients >65
  - 4x amount of antigen, stronger immune response
  - Better protection, decreased risk of infection & hospitalization
- AICP – no nasal spray

N Engl J Med 2014;371:635-45.

Lancet Volume 5, No. 9, p738–746, September 2017

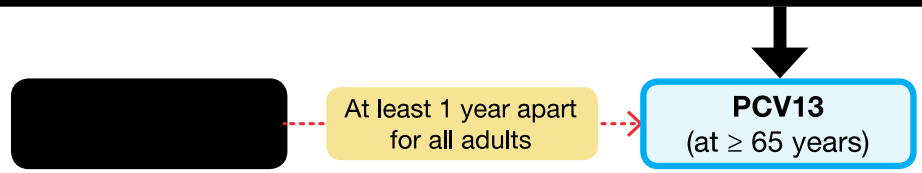
www.cdc.gov

For those who have not received any pneumococcal vaccines, or those with unknown vaccination history



- Administer 1 dose of PCV13.
- Administer 1 dose of PPSV23 **at least 1 year** later for most immuno*competent* adults or **at least 8 weeks** later for adults with immuno*compromising* conditions, cerebrospinal fluid leaks, or cochlear implants. *See Table 1 for specific guidance.*

For those who have previously received 1 dose of PPSV23 at ≥ 65 years and no doses of PCV13



- Administer 1 dose of PCV13 **at least 1 year** after the dose of PPSV23 for all adults, regardless of medical conditions.

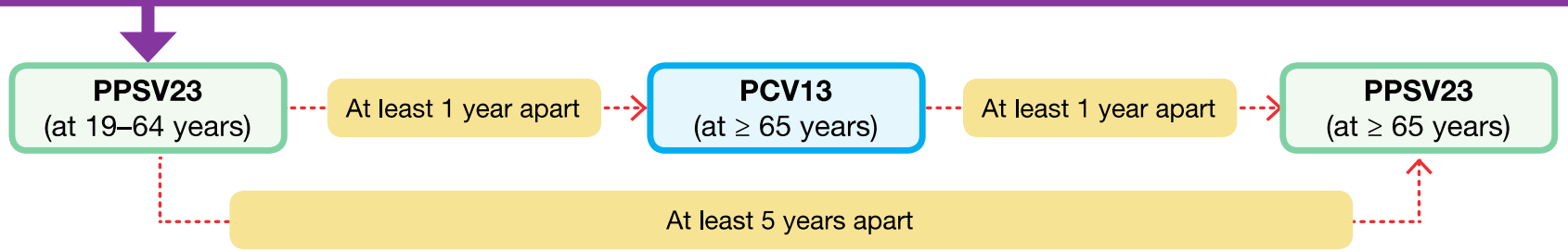
www.cdc.gov/pneumococcal/vaccination.html

MMWR / September 4, 2015 / Vol. 64 / No. 34

Pneumococcal Vaccination

Who Should Get PPSV23 Before Age 65?

Indicated to receive 1 dose of PPSV23 at 19 through 64 years



Includes adults with:

- chronic heart or lung disease
- diabetes mellitus
- alcoholism
- chronic liver disease

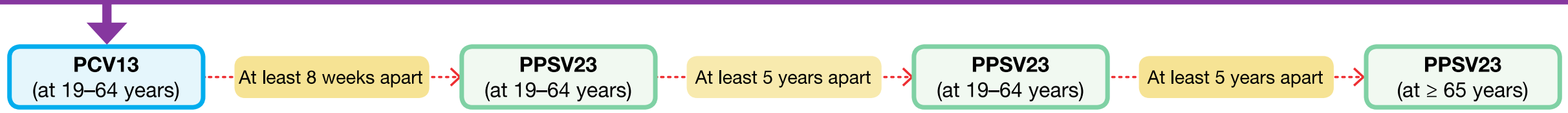
Also includes adults who smoke cigarettes

For those who have **not** received any pneumococcal vaccines, or those with unknown vaccination history:

- Administer 1 dose of PPSV23 at 19 through 64 years.
- Administer 1 dose of PCV13 at 65 years or older. This dose should be given **at least 1 year** after PPSV23.
- Administer 1 final dose of PPSV23 at 65 years or older. This dose should be given **at least 1 year** after PCV13 and at least 5 years after the most recent dose of PPSV23.

Who Should Get PCV13 Before Age 65?

Indicated to receive 1 dose of PCV13 at ≥ 19 years and 1 or 2 doses of PPSV23 at 19 through 64 years



Includes adults with:

- cerebrospinal fluid (CSF) leaks*
- cochlear implants*
- sickle cell disease or other hemoglobinopathies
- congenital or acquired asplenia
- congenital or acquired immunodeficiencies
- HIV infection
- chronic renal failure
- nephrotic syndrome
- leukemia
- lymphoma
- Hodgkin disease
- generalized malignancy
- iatrogenic immunosuppression
- solid organ transplant
- multiple myeloma

For those who have **not** received any pneumococcal vaccines, or those with unknown vaccination history:

- Administer 1 dose of PCV13.
- Administer 1 dose of PPSV23 **at least 8 weeks** later.
- Administer a second dose of PPSV23 **at least 5 years** after the previous dose (**note: a second dose is not indicated for those with CSF leaks or cochlear implants*).
- Administer 1 final dose of PPSV23 at 65 years or older. This dose should be given **at least 5 years** after the most recent dose of PPSV23.

Table 3
Adjusted relative risk of IPD by age, race, pneumovax, sex, year and medical conditions, in comparison with the general population. These are all adjusted for in the Poisson Regression model. KPNC, 2008–2014.

	Adjusted relative risk	95% confidence interval
Non-immunocompromising (Non-IC) conditions		
Alcoholism	1.6	1.2–2.0
Asthma	1.8	1.6–2.1
Chronic liver disease	2.1	1.5–2.8
Cigarette smoking	1.6	1.4–1.8
Chronic kidney disease stage 3,4	1.2	1.0–1.4
Congestive heart failure	1.5	1.2–1.7
Chronic obstructive pulmonary disease	2.1	1.8–2.5
Dementia	1.3	0.9–1.9
Diabetes mellitus	1.3	1.2–1.5
Stroke	1.0	0.6–1.6

Table 4
Relative Risk of IPD, for one or multiple non-immunocompromising conditions, compared to the healthy population. The stacking model (Adjusted Relative Risk) controls for age, sex, year, PPSV23, and medical conditions, and adds an interaction term for patients with immunocompromising and non-immunocompromising conditions.

	Relative risk	95% confidence interval
Non-immunocompromising (Non-IC) conditions		
Alcoholism	1.6	1.2–2.0
Asthma	1.8	1.6–2.1
Chronic liver disease	2.1	1.5–2.8
Cigarette smoking	1.6	1.4–1.8
Chronic kidney disease stage 3,4	1.2	1.0–1.4
Congestive heart failure	1.5	1.2–1.7
Chronic obstructive pulmonary disease	2.1	1.8–2.5
Dementia	1.3	0.9–1.9
Diabetes mellitus	1.3	1.2–1.5
Stroke	1.0	0.6–1.6

Does My Diabetic Patient Really Need One Before Age 65?

HPV Vaccination

- 2 or 4 genotypes; now 9
- 2 dose series if started <age 15 and doses at least 5 months apart
  - Efficacy >20 years in modeling studies…is that long enough?
- Sexually active 30 something?
  - No harm, can try letter to insurance
  - $154 per dose

GARDASIL 9
Human Papillomavirus 9-valent Vaccine, Recombinant

MMWR Morb Mortal Wkly Rep 2016;65:1405–1408

TdaP

One booster in adulthood; otherwise Td

- Exception – recommended every pregnancy to boost maternal antibodies for infant protection

Coverage in Medicare population similar to Zoster

- Not routinely; covered under some Part D or Advantage Part C plans
- $64

What About Pharmacist-led Vaccination?

- Safe, equally efficacious
- Important in era of primary care shortage
- Time for counseling, consistent storage and administration practices

By Now, I Hope You Feel Able To:

- Describe the challenges of annual screening faced by the primary care clinician.
- Engage in a discussion about several controversies in current cancer screening practices in primary care.
- Examine your vaccination practices and find an area for improvement.

Summary:

- With all the controversies in screening, discourse and shared-decision making with our patients is a strong argument for continuing annual visits.
- Engage in dialogue with your colleagues.
- Visit, and revisit, the evidence behind screening & vaccination recommendations.

Questions?

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