Updates in Reproductive and Gynecologic Health in Primary Care

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Outline

- Breast cancer screening
- Cervical cancer screening
- Contraception and medication abortion
- Maternal mortality rates

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Objectives

- Used shared decision making to discuss breast cancer screening
- Compare and apply guidelines for cervical cancer screening
- Counsel patients about emergency contraception and medication abortion
- Counsel and prescribe newer contraceptive medications
- Identify opportunities to provide preconception and post-pregnancy care

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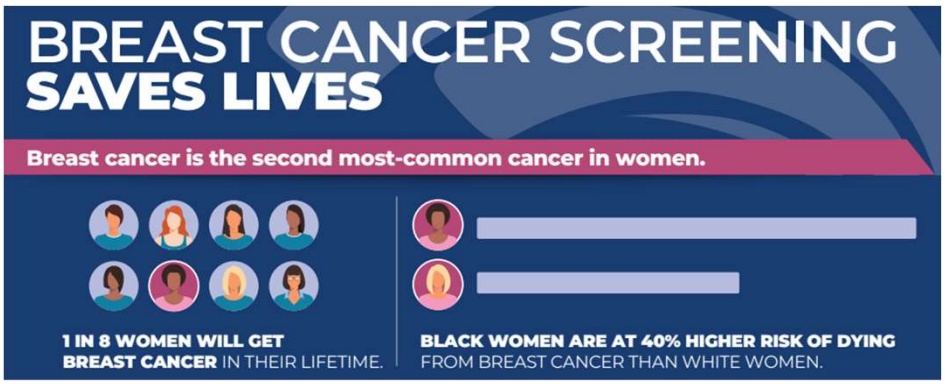
Breast Cancer in the US



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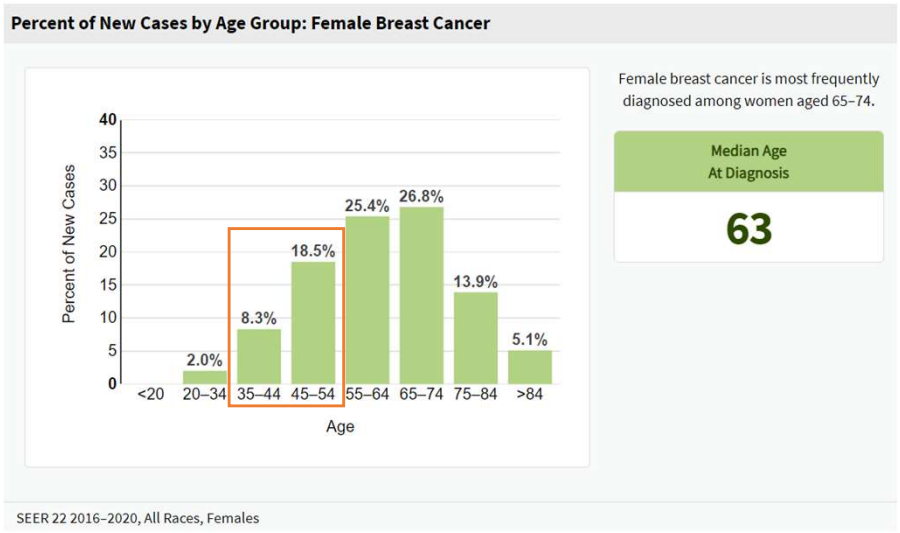
Breast cancer incidence by age



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USPSTF Draft Recommendations: Average Risk

Recommendation Summary

Population	Recommendation	Grade
Women ages 40 to 74 years	The USPSTF recommends biennial screening mammography for women ages 40 to 74 years.	B
Women age 75 years or older	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening mammography in women age 75 years or older.	I
Women with dense breasts	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of supplemental screening for breast cancer using breast ultrasonography or magnetic resonance imaging (MRI) in women identified to have dense breasts on an otherwise negative screening mammogram. See the "Practice Considerations" section for more information on the patient population to whom this recommendation applies and on screening mammography modalities.	I

IN PROGRESS

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Screening Mammography Guidelines for Patients at Average Risk

	40-44	45-49	50-54	55-59	60-74
USPSTF	DRAFT: Q2years				
ACS	Offer	Q1year		Q1-2years	
ACR	Q1year				
NCCN	Q1year				
ACOG	Offer Q1-2 years		Q1-2 years		

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Benefits of Screening Mammograms

Table 2. Mammographic Screening and Breast Cancer Specific Mortality Reduction by Age Group ⇦

Age Range (years)	Relative Risk (95 % Confidence Interval)
39–49	0.92 (0.75–1.02)
50–59	0.86 (0.68–0.97)
60–69	0.67 (0.54–0.83)
70–74	0.80 (0.51–1.28)

Data from Siu AL. Screening for breast cancer: U.S. Preventive Services Task Force recommendation statement. U.S. Preventive Services Task Force [published erratum appears in Ann Intern Med 2016;164:448]. Ann Intern Med 2016;164:279–96.

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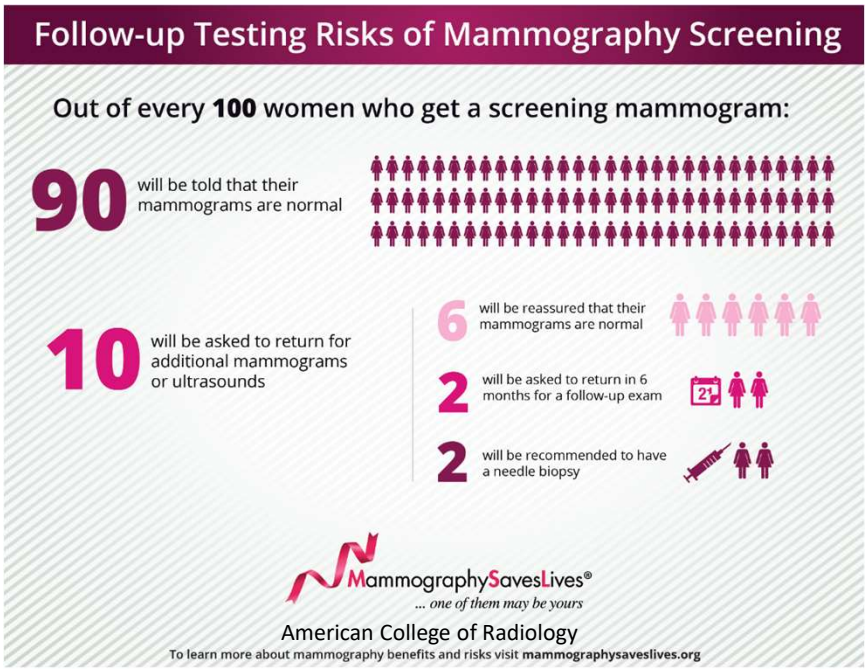

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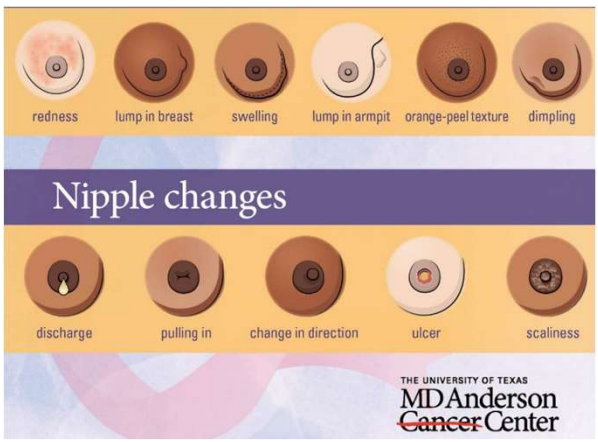
Self-breast exam

- Not recommended (USPSTF 2009, grade D) (ACS 2015)
- Randomized controlled trials
  - No reduction in mortality rates
  - More "false positives"
- Instead – encourage self-breast awareness



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Clinical breast exam (CBE) for average risk

	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.

*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

‡Qualified recommendation

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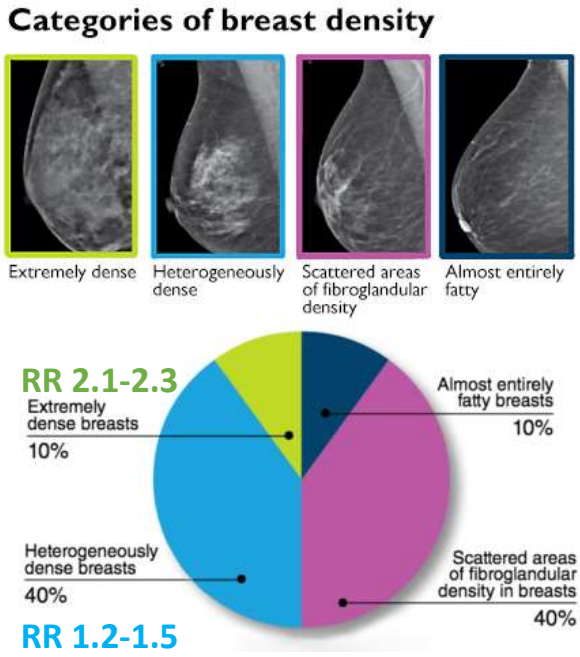
Breast density

- Determined by mammogram, NOT by physical exam
- Relative risk compared to scattered fibroglandular densities
- No evidence that additional testing improves mortality



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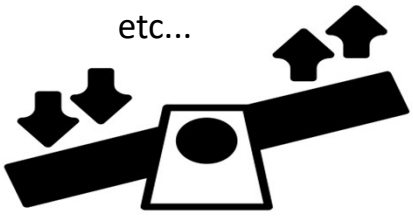
Shared decision making

Benefits and harms of screening

Health factors:
- breast cancer risk
- Comorbidities
- Life expectancy

etc...



Patient's values and preferences

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Cost-sharing for breast imaging

SB 5396 FINAL BILL REPORT

Summary: Beginning January 1, 2024, for health plans that include coverage of supplemental breast examinations and diagnostic breast examinations, health carriers may not impose cost sharing for such examinations.

Diagnostic breast examination means a medically necessary and appropriate examination, including an examination using diagnostic mammography, digital breast tomosynthesis, breast magnetic resonance imaging, or ultrasound, that is used to evaluate an abnormality seen or suspected from a screening examination for breast cancer, or detected by another means of examination.

Supplemental breast examination means a medically necessary and appropriate examination, including an examination using breast magnetic resonance imaging or ultrasound, that is used to screen for breast cancer based an individual's personal or family medical history, or additional factors that may increase the individual's risk of breast cancer.

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Outline

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- Cervical cancer screening
- Contraception and medication abortion
- Maternal mortality

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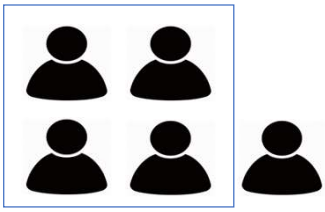
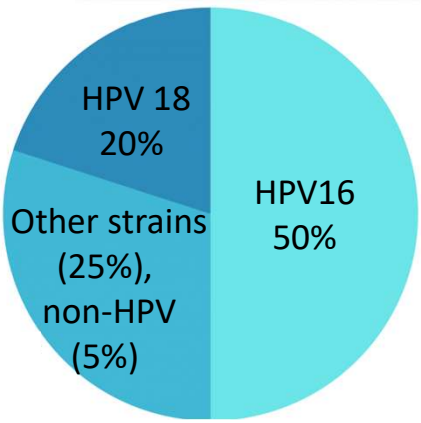
HPV and cervical cancer



By age 50,
4 out of 5 people will have been infected with HPV



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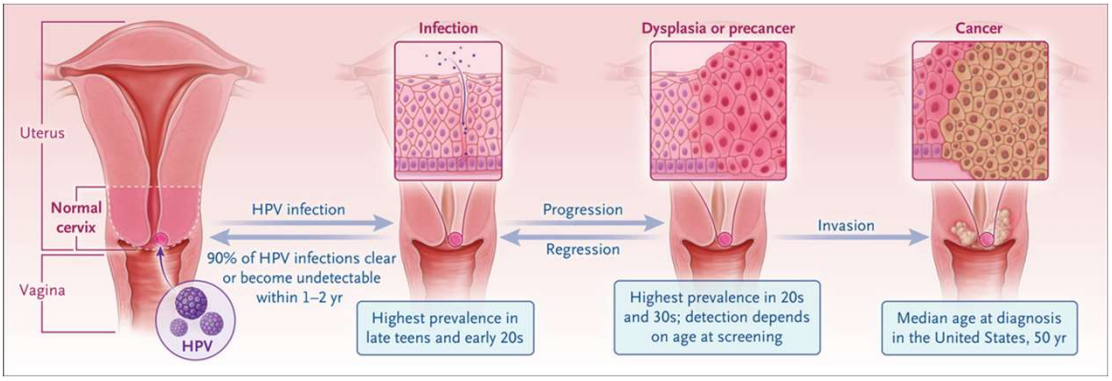
HPV Infection and Progression to Cervical Cancer



LE Markowitz, ER Unger. N Engl J Med 2023;388:1790-1798.

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Cervical Cancer Screening Guidelines for Patients at Average Risk

	21-24	25-29	30-65	>65
ACS 2020	No screening	Primary HPV q5yrs [OR HPV + cytology q5yrs OR Cytology q3yrs]		No screening IF 2-3 consecutive negative results in the past 10 yrs AND no CIN2 or higher in the past 25 yrs
USPSTF	Cytology q3yrs		Primary HPV q5yrs OR HPV + cytology q5yrs OR Cytology q3yrs	

ASCCP "endorses" USPSTF and ACOG guidelines, and "supports" ACS guidelines

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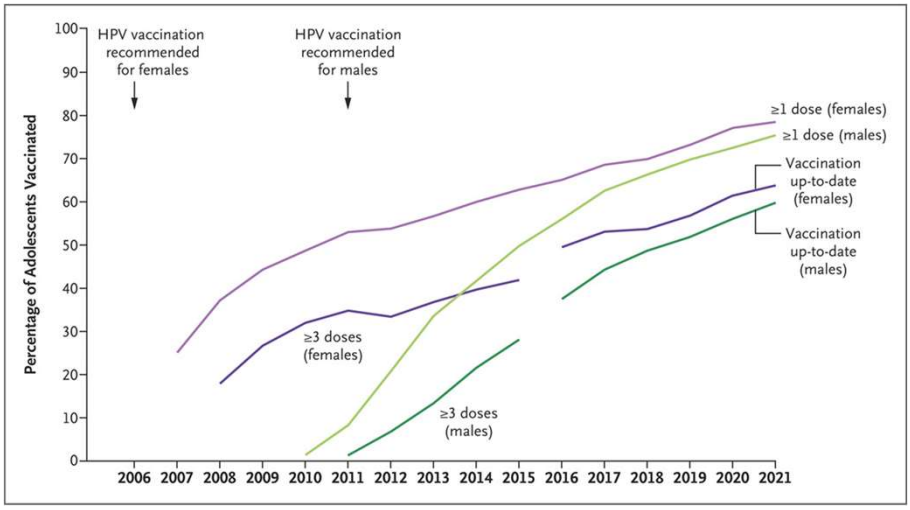
HPV Vaccination among 13-17 year-old adolescents between 2007–2021



LE Markowitz, ER Unger. N Engl J Med 2023;388:1790-1798.

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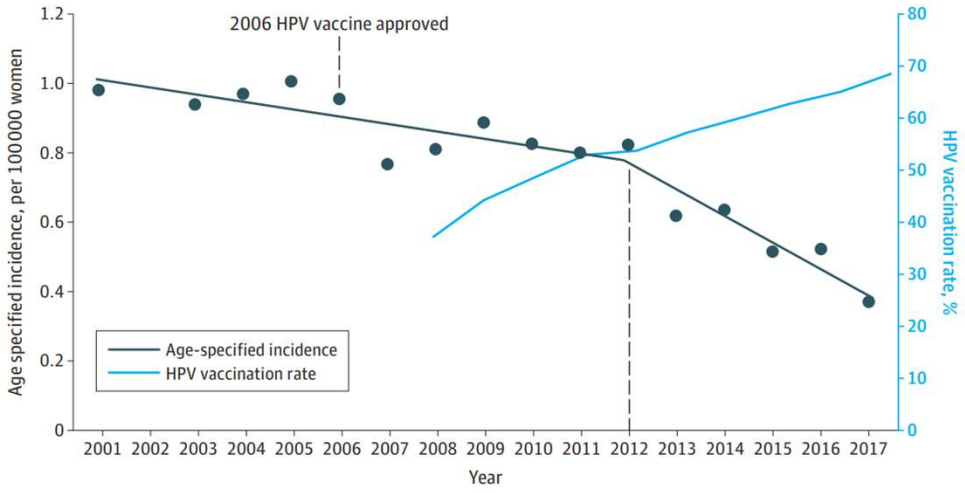
Figure 2. Age-Specified Incidences and Trends of Cervical Squamous Cell Carcinoma in Individuals Aged 20 to 24 Years and Human Papillomavirus Virus (HPV) Vaccination Rate (>1 Dose) in Adolescents Aged 13 to 17 Years



Liao et,al, JAMA 2023

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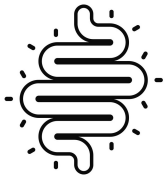
Special populations

- For patients who are immunosuppressed
  - Cytology only screening **within 1 year of insertional sexual activity**
  - Cytology annually for 3 years, then **every 3 years** until 30 years old
  - Cotesting or cytology alone **every 3 years** after 30 years old **throughout lifetime**



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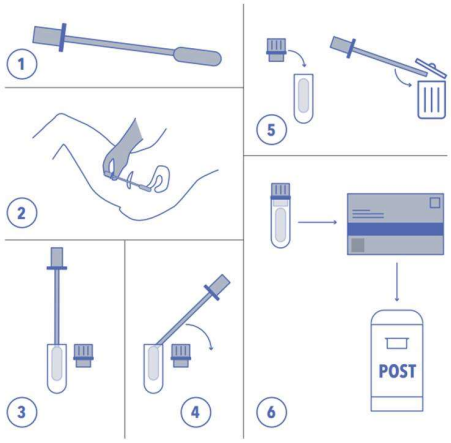
Self-collected HPV tests

- Not FDA approved
- Efficacy is similar to clinician collected samples
- Helpful for patients hesitant to get a pelvic exam or without access to speculum exam
- If positive >> speculum exam for cytology



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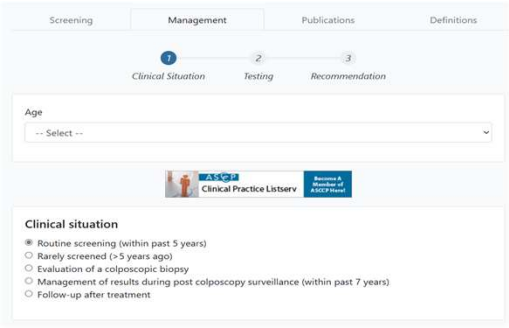
Managing screening results

Based on risk of cervical intraepithelial neoplasia grade 3 or higher (CIN 3+)



https://app.asccp.org/

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A 40-year-old patient sends you a message about when she should get her IUD exchanged. She had a 52 mg levonorgestrel IUD placed 5 years ago for contraception. How long is her IUD effective when used for contraception?

A) 5 years
B) 6 years
C) 7 years
D) 8 years

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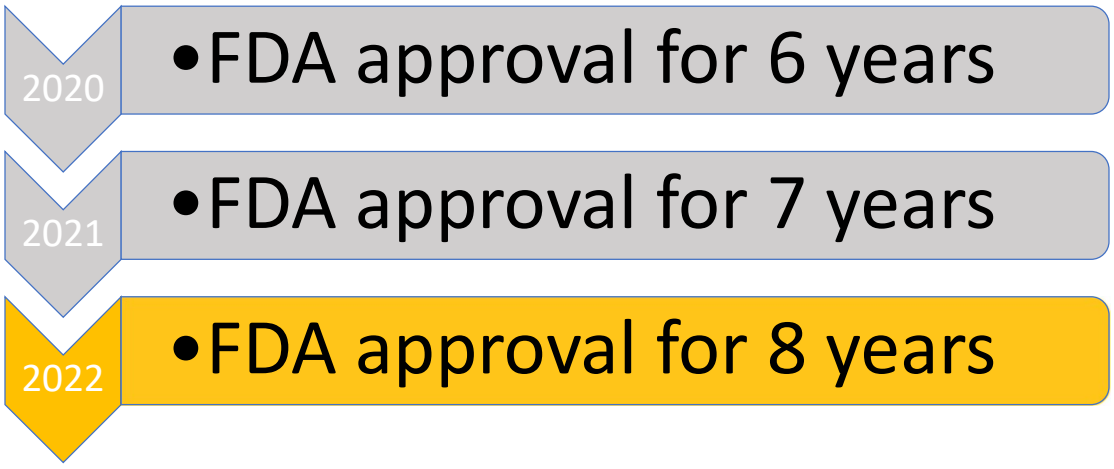
52 mg Levonorgestrel IUD duration of use



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Levonorgestrel 52 mg IUD duration of use

362 women nearing 5 years of 52mg levonorgestrel IUD use were followed for 3 more years

Results

Over 99% effective at preventing pregnancy for up to 8 years	2 pregnancies >> contraceptive failure rate of 0.68%

Jensen JT et al. Contraceptive efficacy and safety of 52mg LNG-IUS for up to 8 years: Findings from the Mirena Extension Trial. *Am J Obstet Gynecol* 2022 Sep 9; [e-pub

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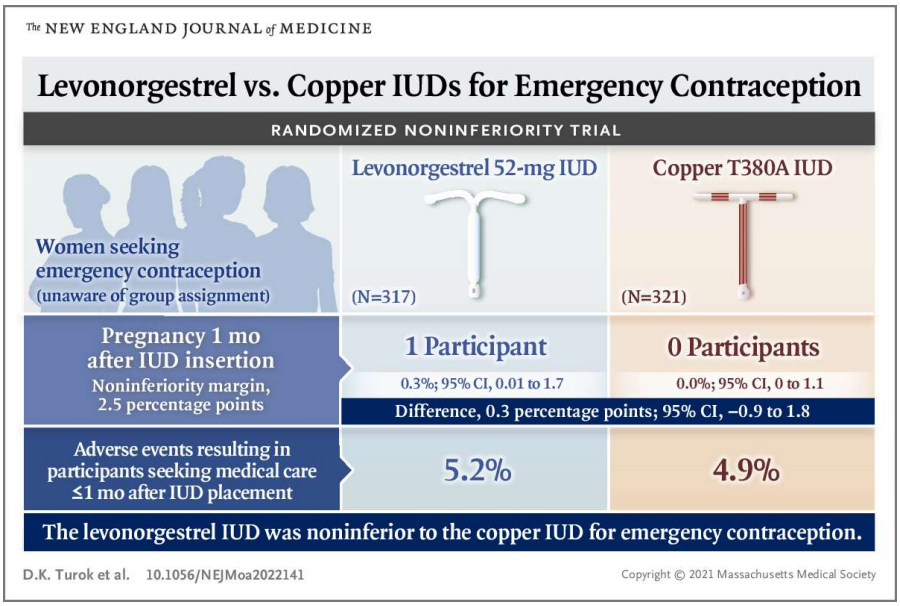

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Emergency contraception options

	Copper T380A IUD	52 mg Levonorgestrel IUD	Ulipristal acetate pills	Levonorgestrel pills
How soon after unprotected intercourse?	Up to 5 days after UPI (maybe longer)	Up to 5 days after UPI (maybe longer)	ASAP within 5 days after UPI	ASAP within 5 days after UPI
Risk of pregnancy	0.10%	0.30%	1.80%	2.60%
Over the counter?	No	No	No	Yes
Weight considerations?	No	No	May not be as effective if BMI > 35	May not be as effective if BMI > 26
Ongoing contraception?	Yes	Yes	No	No

Not FDA approved

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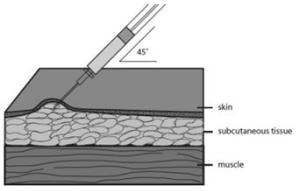
Self-administered DMPA-SC

- Subcutaneous depot medroxyprogesterone acetate self-administered vs. provider administered
  - Higher rates of continuation
  - No difference in pregnancy rates
- 104 mg progestin, smaller needle
- "Off-label"



US MEC
US SPR

CDC

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Over the counter norgestrel OCP

Mechanism:
- suppresses ovulation
- thickens cervical mucous
- thins endometrium

Use:
- 0.075 mg at the same time every day
- 92% effective with typical use vs. 99% effective with ideal use

Side effects:
- Irregular bleeding
- Headaches
- Nausea
- Bloating

Avoid if:
- Current or history of breast cancer
- Liver disease
- Pregnancy
- Undiagnosed abnormal bleeding

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Vaginal pH modulator

Mechanism:
- Inhibits sperm mobility
- Lactic Acid, citric acid, potassium bitartrate

Use:
- 5 g up to 1 hour before intercourse
- 86-89% efficacy with typical use vs. 96% effective with ideal use

Side effects:
- Burning, itching
- Yeast infection
- UTI
- Bacterial vaginosis

Avoid if:
- Recurrent urinary tract infections
- Urinary tract abnormalities
- Contraceptive ring

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Contraceptive patch

Mechanism:
- Suppresses ovulation
- 120 mcg levonorgestrel, 30 mcg ethinyl estradiol

Use:
- Exchanged weekly for 3 weeks
- No patch on the 4th week

Side effects:
- Similar to other combined methods
- Skin irritation at patch site
- 5% of patches fully detached

Avoid if:
- BMI ≥ 30kg/m^2
- Sensitive skin

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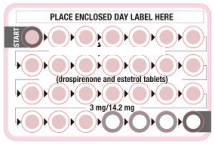
Combined oral contraceptive pill



Mechanism:
- Suppresses ovulation, thins endometrium
- Drosperinone 3 mg and estetrol 14.2 milligrams

Use:
- 24 active tablets, 4 placebo

Side effects:
- Potassium sparing
- Similar to other combined hormonal methods

Avoid if:
- Contraindications to combined methods

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What if contraception fails?

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Providing medication abortion

Dating

Last menstrual period: ≤70 days

Ultrasound if:
- suspected ectopic pregnancy
- unsure of LMP

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Providing medication abortion

Dating

Last menstrual period: ≤70 days

Ultrasound if:
- suspected ectopic pregnancy
- unsure of LMP

Medical hx

Contraindications:
- bleeding/clotting disorder
- ectopic pregnancy
- IUD in place
- adrenal insufficiency or porphyria
- steroid use
- anemia

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Providing medication abortion

Dating

Last menstrual period: ≤70 days

Ultrasound if:
- suspected ectopic pregnancy
- unsure of LMP

Medical hx

Contraindications:
- bleeding/clotting disorder
- ectopic pregnancy
- IUD in place
- adrenal insufficiency or porphyria
- steroid use
- anemia

Labs

No need for Rh testing or Rh Ig in first trimester (JAMA, Horvath 2023)

Can consider serum Hcg for monitoring

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Mifepristone

Anti-progestin

200 mg PO x 1

24-72 hours later

Misoprostol

Prostaglandin E1 analog

800mcg
(200 mcg x 4 tabs)
buccally or vaginally

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Serious complications are rare

Blood transfusion	0.03-0.6%
Hospitalization	0.04-1.3%
Infection	0.01-0.9%

Chen MJ, Creinin MD. Mifepristone With Buccal Misoprostol for Medical Abortion: A Systematic Review. *Obstet Gynecol*. 2015;126(1):12-21.

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What is the rate of ongoing pregnancy?

	Continuation of pregnancy (%)
Mifepristone + Misoprostol (Only FDA-approved method)	1-2% (GA <7w)[2, 3]
	2-5% (GA 8w)[2, 3]
	5-7% (GA 9w)[2, 3]

1. Raymond EG, Harrison MS, Weaver MA. Efficacy of Misoprostol Alone for First-Trimester Medical Abortion: A Systematic Review. *Obstet Gynecol*. 2019;133(1):137-147.
2. Chen MJ, Creinin MD. Mifepristone With Buccal Misoprostol for Medical Abortion: A Systematic Review. *Obstet Gynecol*. 2015;126(1):12-21.
3. Society of Family Planning, Medication Abortion Up to 70 Days of Gestation. October 2020. https://doi.org/10.1016/j.contraception.2020.08.004

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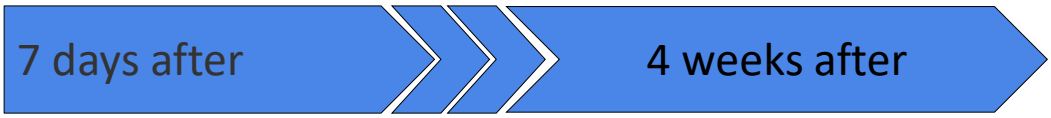
Follow up after medication abortion



- Serum hCG (if tracking):
  - ↓ 50% in 3 days
  - ↓ 80% in 7 days

Pregnancy symptoms resolve
Bleeding resolves

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Clinic logistics

1. Provider registers with mifepristone distributor

2. Prescribe mifepristone (in person or mail-order)
   - Pending Walgreens and CVS

3. Complete FDA patient agreement form

4. Document serial number and expiration date of mifepristone

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Resources

UNIVERSITY of WASHINGTON PLAN C

https://abortionpillcme.teachtraining.org/

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Outline

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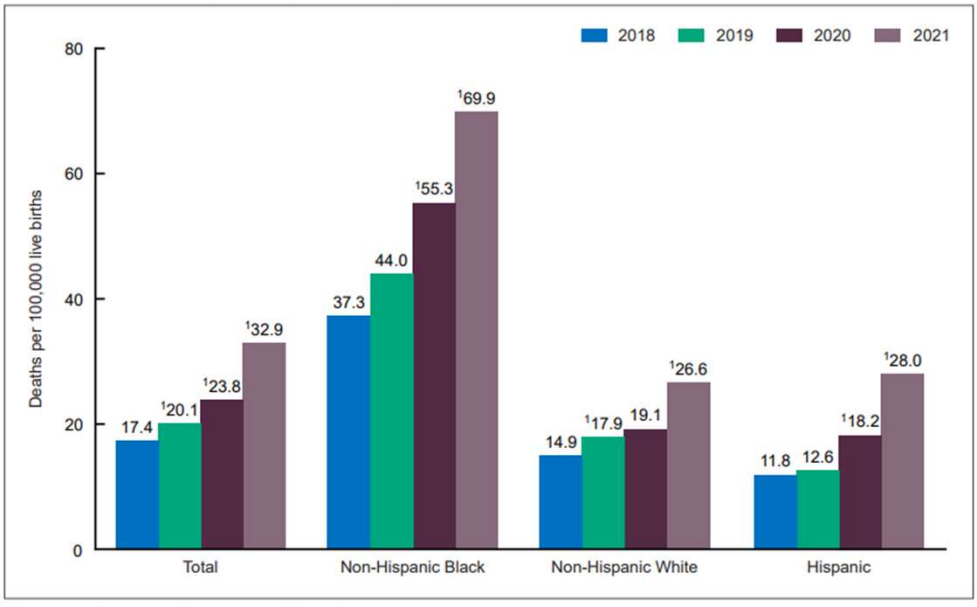
Figure 1. Maternal mortality rates, by race and Hispanic origin: United States, 2018–2021



[1]Statistically significant increase from previous year ($p < 0.05$).
NOTE: Race groups are single race.
SOURCE: National Center for Health Statistics, National Vital Statistics System, Mortality.

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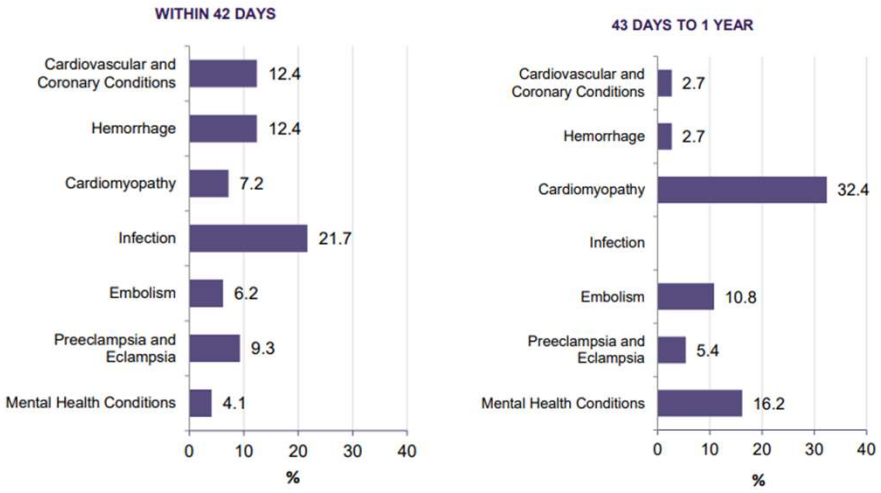
Causes of Pregnancy-Related Deaths after Delivery

53% of pregnancy-related deaths happen between 1 week to 1 year after delivery



Data: Centers for Disease Control and Prevention, *Report from Nine Maternal Mortality Review Committees* (CDC, 2018).

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What can we do as internists?

Preconception care

- Review family planning goals at wellness visits
- Offer contraception and abortion care
- Screen for metabolic and cardiovascular disease
- Optimize chronic medical and mental health conditions
- Coordinate with specialists
- Medication counseling
- STI screening

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What can we do as internists?

4th trimester and beyond

- Screen for postpartum depression
  - Edinburgh Postnatal Depression Scale - score of 11 or higher
  - PHQ9
- Monitor blood pressure
- Ask about pregnancy complications
  - If gestational diabetes – A1C every 1-3 years
  - If hypertensive disease of pregnancy – CVD risk enhancer
- Support lactation
- Contraception

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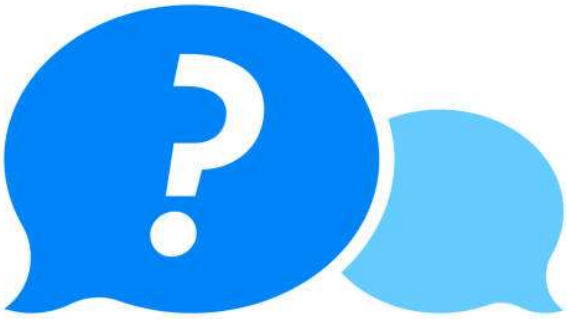
Thank you!

Evaluation link
(NOT for CME)



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