USPSTF Guidelines Update

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I have no disclosures to report

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Objectives: After this talk you should be able to:

1. Interpret USPSTF recommendations based on their level of evidence
2. Apply recent evidence-based USPSTF recommendation updates to your care for patients

USPSTF: United States Preventive Services Task Force

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USPSTF Recommendations: Clinical Practice Guidelines

Only evidence-based recommendations

Image from: https://www.reddit.com/r/physicaltherapy/comments/46dbrj/copied_from_rmedicalschool_evidence_based_practice/

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USPSTF Grading

Grade A - USPSTF recommends the service. There is high certainty that the net benefit is substantial.

Grade B - 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.

USPSTF Grading

Grade C - Clinicians may provide this service to selected patients depending on individual circumstances. However, for most individuals without signs or symptoms there is likely to be only a small benefit from this service.

Grade D - 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.

USPSTF Grading

Grade I - 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

Current Published Recommendations by Grade

Grade A	Grade B	Grade C
12	37	8

Grade D	Grade I
19	51

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OUTLINE

1. Pediatric Screening
2. Cancer Screening
3. Transmissible Disease Prevention
4. Optimizing Pregnancy Outcomes
5. Mental and Behavioral Health Screening
6. Falls and Fracture Prevention

We will review Grade A and B recommendations from 2023 and all recommendations from 2024

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Case 1 – Pediatric Screening

You are seeing a 10-year-old for a well child visit. Which of the following is an evidenced-based service recommended by the USPSTF? Select all that apply

A. Screening for HTN
B. Screening for Diabetes
C. Screening for Hyperlipidemia
D. Screening for Obesity

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Pediatric Screening: Obesity

Grade
B

Topic	USPSTF Recommendation
Obesity in Children and Adolescents: Screening: children and adolescents 6 years and older	Screen for obesity in children and adolescents 6 years and older and offer or refer them to comprehensive, intensive behavioral interventions to promote improvements in weight status.

Updated 2024, no change from 2017

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Case 1 Rationale

Grade
I

The **USPSTF** concludes there is insufficient evidence to assess the balance of benefits and harms of screening for high blood pressure in children and adolescents,

- No studies directly assess whether screening children/adolescents delays or reduces risk for adverse health outcomes

- Adequate evidence of association with high blood pressure children and intermediate outcomes in adults (left ventricular hypertrophy, carotid intimal thickness)

American Academy of Pediatrics (AAP) and **American Heart Association -** universal HTN screening annually starting at age 3

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Grade
I

Case 1 Rationale

The **USPSTF** concludes there is insufficient evidence to assess the balance of benefits and harms of screening for lipid disorders in children and adolescents 20 years or younger,

***AAP**: universal lipid screening at ages 9-11 and 17*

- No studies directly assessed effectiveness of screening to delay or reduce poor health outcomes or improve intermediate outcomes (eg, serum lipid levels)
- Inadequate evidence that lipid-lowering interventions in patients identified by screening the general pediatric population leads to reductions in cardiovascular events
- Adequate evidence from short-term trials that pharmacotherapy substantially reduces cholesterol levels in children and adolescents with familial hypercholesterolemia.

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Grade
I

Case 1 Rationale

American Diabetes Association and AAP: Diabetes screening is a risk-factor based assessment.

Age ≥ 10 and Overweight (BMI ≥ 85%) and 1 of the following:

- *FH of Type 2 Diabetes*
- *Maternal Gestational Diabetes*
- *Signs of insulin resistance or conditions associated with insulin resistance*
  - *HTN*
  - *Dyslipidemia*
  - *PCOS*
  - *Small or large for gestational age birth weight*
  - *Acanthosis nigricans*
- *African American, Latino, Native American, Asian American race/ethnicity*

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Case 2 – Pediatric Screening

You are seeing an 11-year-old for a well child visit. Which of the following is consistent with USPSTF recommendations regarding interventions to prevent child maltreatment?

A. All children and adolescents should be routinely screened for maltreatment
B. All children and adolescents should be routinely screened for maltreatment and referred to social services if they screen positive
C. All adolescents aged 12-18 should be routinely screened for maltreatment and referred to social services if they screen positive
D. There is insufficient evidence to assess the balance of benefits and harms of primary care interventions to prevent child maltreatment

Case 3 – Pediatric Screening

You are seeing a 4-year-old for a well child visit. Which of the following is consistent with USPSTF recommendations regarding screening for speech and language delay?

A. All children 5 and younger should be screened for speech and language delay using a validated screening tool at every preventive visit
B. All children 5 and younger should be screened for speech and language delay using a validated screening tool annually
C. All children should be screened for speech and language delay using a validated screening tool once between the ages of 3 and 5
D. There is insufficient evidence to assess the balance of benefits and harms of screening for speech and language delay in children 5 and younger

Case 3 – Speech and Language Delay Screening

Grade
I

- Inadequate direct evidence that screening improves speech, language, school performance, function, or quality-of-life outcomes.
- Inadequate evidence that interventions for speech and language delay improve speech and language outcomes, school performance, function, or quality-of-life outcomes

American Academy of Pediatrics (AAP)

- ✓ Routine developmental surveillance at all well-child visits.
- ✓ Developmental screening (which may include speech and language domains, but is not specific to speech and language delay and disorders) with validated tools at the 9-month, 18-month, and 30-month visits

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Case 4 – Cancer Screening

An asymptomatic 38-year-old woman at average risk for breast cancer asks you when she should start mammography screening. Which of the following is consistent with USPSTF breast cancer screening recommendations?

A. Mammography screening annually starting at age 40
B. Mammography screening every two years starting at age 40
C. Mammography screening annually starting at age 50
D. Mammography screening every two years starting at age 50

Cancer Screening: Breast

Grade
B

Topic	USPSTF Recommendation
Breast Cancer: Screening: women aged 40 to 74 years	Biennial (every 2 year) screening mammography for women aged 40 to 74 years

Updated 2024 with major change from 2016

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Breast Cancer Screening - Why the change?

- Incidence rate of invasive breast cancer for 40- to 49-year-old women has increased an average of 2% annually between 2015 and 2019
- Göteborg Swedish Study showed mortality benefit in age 40-49
- Combining Swedish trials, Number Needed to Invite lowest in 40-49 group (1211)
- Modeling studies on net benefit

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Table 2. Estimated Median Lifetime Benefits and Harms of Biennial Screening Mammography With Digital Breast Tomosynthesis for a Cohort of 1000 Women and a Cohort of 1000 Black Women by Starting Age of 40 vs 50 Years

Screening strategy (interval, start-stop ages in years)	Mammograms	Breast cancer deaths averted	Life-years gained	False-positive results	Overdiagnosis
All women (across 6 models)					
Biennial (40-74)	16,116	8.2	165.2	1376	14
Biennial (50-74)	11,208	6.7	120.8	873	12
Black women (across 4 models)					
Biennial (40-74)	15,801	10.7	228.9	1253	18
Biennial (50-74)	10,905	9.2	176.7	814	16

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Table derived from USPSTF

This patient has dense breasts

"The patient has dense breasts. Discuss with patient additional supplemental screening options. If the patient is high risk (=20%) consider supplemental annual screening MRI. If the patient is average (<15%) or intermediate (15% to <20%) risk and desires supplemental screening, annual screening ultrasound could be considered."

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Case 4 continued

Which of the following is true regarding supplemental screening using breast ultrasonography or magnetic resonance imaging (MRI) in women identified to have dense breasts on an otherwise negative screening mammogram.?

A. Supplemental screening decreases mortality
B. Supplemental screening improves sensitivity but not mortality
C. Supplemental screening does not impact false positive rate
D. Supplemental screening has no impact on sensitivity or specificity

Case 5 – Transmissible Disease Prevention

The USPSTF recommends that clinicians prescribe preexposure prophylaxis using effective antiretroviral therapy to which of the following high-risk individuals?

A. All adult men who have sex with men
B. A 16-year-old heterosexual male who has had vaginal sex with 3 partners in the past 6 months and was treated for gonorrhea 4 months ago
C. A 24-year-old transgender woman who has had condomless oral sex with 4 partners in the past 6 months
D. All persons who inject drugs intravenously

Transmissible Disease Prevention: HIV Prevention

Grade
A

Topic	USPSTF Recommendation
Prevention of Acquisition of HIV: Preexposure Prophylaxis: adolescents and adults at increased risk of HIV	Prescribe preexposure prophylaxis using effective antiretroviral therapy to persons who are at increased risk of HIV acquisition to decrease the risk of acquiring HIV

Updated 2023, no change from 2019

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USPSTF Indications for PREP

- **Sexually active adults and adolescents weighing ≥ 35 kg (77 lb) who have engaged in anal or vaginal sex in the past 6 months and have any of the following:**
  - **A. Sexual partner who has HIV**
  - **B. Bacterial STI in the past 6 months**
    - **syphilis, gonorrhea, or chlamydia for MSM and transgender women**
    - **gonorrhea or syphilis for heterosexual women and men**
  - **C. History of inconsistent or no condom use with sex partners whose HIV status is not known**

- **Persons who inject drugs and share injection equipment or have a drug-injecting partner who has HIV**

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PREP Treatments

Tenofovir disoproxil fumarate-emtricitabine (TDF-FTC) "Truvada"

-most studied across all populations

-can be nephrotoxic (avoid in eGFR <60), reduce bone density

-only oral drug approved for high-risk vaginal sex

Tenofovir alafenamide-emtricitabine [TAF-FTC]) "Biktarvy"

-less bone and renal toxicity

-increased weight gain and TG

Cabotegravir LA

-injectable, administered in clinic

-risk of developing an integrase inhibitor-resistant strain if HIV infection

-good option for eGFR <30

-increase drug resistance risk for 12 months after stopping

CDC, 2021

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Case 6 – Transmissible Disease Prevention

You are seeing a 26-year-old asymptomatic woman as a new patient. Which of the following is consistent with the USPSTF recommendations for latent tuberculosis screening?

A. Screen all persons born in Mexico
B. Screen all persons born in the Philippines
C. Screen all persons who have experienced homelessness
D. A, B, and C
E. There is insufficient evidence for harms and benefits to make a recommendation about latent tuberculosis screening

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Transmissible Disease Prevention: Latent TB Screening

Grade
B

Topic	USPSTF Recommendation
Latent Tuberculosis Infection in Adults: Screening: asymptomatic adults at increased risk of latent tuberculosis infection (LTBI)	Screen for LTBI in populations at increased risk • (persons born in most countries in Latin America, the Caribbean, Africa, Asia, Eastern Europe, and Russia) • Persons who are or have been homeless or living in correctional facilities

Updated 2023, no change from 2016

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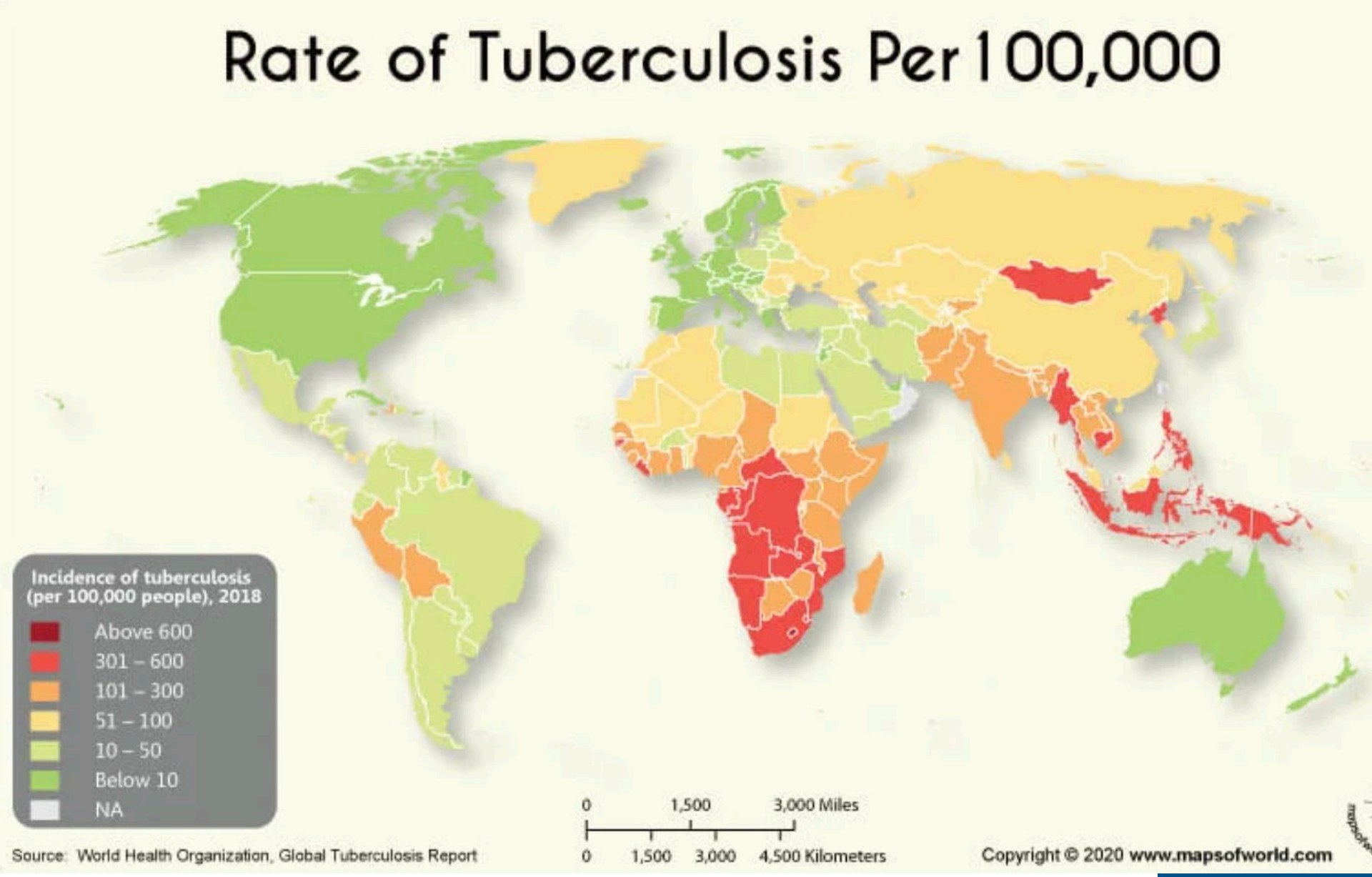
Rate of Tuberculosis Per 100,000



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Case 7 – Optimizing Pregnancy Outcomes

You are seeing a 33-year-old patient who comes in because she has not had a period for 2 months. Office urine pregnancy test is positive. Which of the following is consistent with USPSTF recommendations regarding iron deficiency anemia screening in pregnancy?

A. There is insufficient evidence to assess the balance of benefits and harms of screening for iron deficiency anemia in pregnancy
B. All pregnant patients should be screened for iron deficiency anemia during the fist trimester
C. All pregnant patients should be screened for iron deficiency anemia between 24-28 weeks gestation
D. All pregnant patients should receive screening for iron deficiency anemia at 6 weeks postpartum

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Grade
I

Case 7 Rationale

- Inadequate evidence on benefits of screening for and treatment of iron deficiency and iron deficiency anemia in asymptomatic pregnant persons.
- Inadequate evidence on association between change in iron status because of treatment of screen-detected iron deficiency or iron deficiency anemia and improvement of maternal or infant health outcomes

American College of Obstetricians and Gynecologists, American Academy of Family Physicians, and Centers for Disease Control and Prevention: all pregnant persons should be screened for anemia at their first prenatal visit

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Case 8 – Optimizing Pregnancy Outcomes

You are seeing a 26-year-old woman who is having unprotected sex with one long term male partner. They use the withdrawal method to prevent pregnancy. She has experienced side effects from multiple forms of birth control and is not interested in discussing contraceptive options. Urine pregnancy test is negative. Which of the following is consistent with USPSTF recommendations for folic acid supplementation to prevent neural tube defects?

A. Start daily supplementation of 400-800 mcg of folic acid now
B. Start daily supplementation of 400-800 mcg of folic acid if she becomes pregnant
C. Start daily supplementation of at least 1000 mcg of folic acid if she becomes pregnant
D. There is insufficient evidence for supplementation of folic acid to prevent neural tube defects

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Optimizing Pregnancy Outcomes: Preventing Neural Tube Defects

Grade
A

Topic	USPSTF Recommendation
Folic Acid Supplementation to Prevent Neural Tube Defects: Preventive Medication: persons who plan to or could become pregnant	All persons planning to or who could become pregnant take a daily supplement containing 0.4 to 0.8 mg (400 to 800 mcg) of folic acid

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Optimizing Pregnancy Outcomes: HTN Screening

Grade
B

Topic	USPSTF Recommendation
Hypertensive Disorders of Pregnancy: Screening: asymptomatic pregnant persons	Screen for hypertensive disorders in pregnant persons with blood pressure measurements throughout pregnancy.

Updated 2023, no change from 2017

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Case 10 - Mental and Behavioral Health Screening

You are seeing a 50-year-old patient for a return preventive visit. Which of the following is consistent with the USPSTF recommendations for depression and anxiety screening?

A. Patient should be screened for anxiety and depression
B. Patient should be screened for depression but there is insufficient evidence to screen for anxiety
C. Patient should be screened for anxiety but there is insufficient evidence to screen for depression
D. There is insufficient evidence to screen for anxiety or depression

Mental and Behavioral Health Screening: Anxiety

Grade
B

Topic	USPSTF Recommendation
Anxiety Disorders in Adults: Screening: adults 64 years or younger, including pregnant and postpartum persons	Screen for anxiety disorders in adults, including pregnant and postpartum persons.

New recommendation in 2023

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Mental and Behavioral Health Screening: Depression/Suicide Risk

Grade
B

Topic	USPSTF Recommendation
Depression and Suicide Risk in Adults: Screening: adults, including pregnant and postpartum persons, and older adults (65 years or older)	Screen for depression in the adult population, including pregnant and postpartum persons, as well as older adults.

Updated 2023, no change from 2016

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Falls Prevention in Older Adults

Grade
B

Topic	USPSTF Recommendation
Falls Prevention in Community-Dwelling Older Adults: Interventions: adults 65 years or older	Exercise interventions to prevent falls in community-dwelling adults 65 years or older who are at increased risk for falls.

Updated 2024, no change from 2018

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Exercise Interventions

- Group exercise programs (24/36)
- Physical Therapy (9/36 trials)
- Otago Exercise Program (6/36 Trials)
- Tai Chi (5/36)

Treatment results in:

- 107 falls prevented per 1000 individuals.
- Prevention of 27 falls resulting in injury

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Summary Table of A/B recommendations in 2023/2024

Topic	Recommendation
High BMI in Children and Adolescents	Treat children/adolescents 6+ with high BMI with comprehensive behavioral interventions
Falls Prevention	Provide exercise interventions in adults aged 65+ who are at increased risk for falls
Breast Cancer Screening	Biennial screening mammography for women aged 40 to 74 years
Hypertensive Disorders of Pregnancy: Screening	Screen for hypertensive disorders throughout pregnancy
HIV Preexposure Prophylaxis	Prescribe antiretroviral therapy to persons at increased risk for HIV
Folic Acid to Prevent Neural Tube Defects	All persons who could become pregnant take a daily folic acid supplement (400 to 800 mcg)
Anxiety Screening in Adults	Screen for anxiety disorders in adults <65 years
Depression Screening in Adults	Screen for depression in adults
Latent TB Screening	Screen for LTBI in populations at increased risk

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