WOMEN'S HEALTH BOARD REVIEW

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Key Topics

Know:

- Screening and Prevention recommendations based on age

Evaluate and manage:

- Breast Lesions
- Absent or abnormal bleeding
- Family Planning
- Menopause

SCREENING

Case

30 year old woman with no past medical history presents for a wellness exam. She has never been a smoker, rarely drinks alcohol, is sexually active with 1 monogamous male partner for five years and uses an IUD for contraception. She is up to date with all of her vaccinations. She had negative STI testing 2 years ago pap 5 years ago. No family history of cancer of any kind.

What screening is advised for today?

A- Mammography
B- Cervical cancer screening (pap)
C- GC/CT Testing
D- Bimanual exam

Case

30 year old woman with no past medical history presents for a wellness exam. She has never been a smoker, rarely drinks alcohol, is sexually active with 1 monogamous male partner for five years and uses an IUD for contraception. She is up to date with all of her vaccinations. She had negative STI testing 2 years ago, pap 5 years ago. No family history of cancer of any kind.

What screening is advised for today?

A- Mammography	Not recommended till at least 40
B- Cervical cancer screening	Q 5 years is max interval
C- GC/CT Testing	Women <24 years old or at higher risk
D- Bimanual exam	Grade I/insufficient/uncertain

Key Topic: Prevention, Cervical Cancer Screening

Start:

- *USPSTF and ACS agree to start by 25 years old*
- *Some areas of variance about when to start (21 for USPSTF vs. 25 for ACS)*

Interval:

- *Every 5 years if normal and HPV testing done*
- *Every 3 years if normal and no HPV testing (cytology only)*

HPV testing:

- *Some areas of recent change about when to do HPV testing (not until 30 for USPSTF vs 25 for ACS)*
- *Primary HPV with reflex cytology, cytology with reflex HPV or co-test generally all acceptable by varying guidelines.*

Other recommended screenings specific to females 18-65 years old

GRADE A

- Folic acid supplementation if “capable of pregnancy”
- HIV screening at least once, more based on risk factors
- PrEP in persons at risk of HIV acquisition
- Intimate Partner Violence Screening

GRADE B

- Risk assessment (at 18, recheck 5-10y) , genetic counseling for people with personal or family history of BRCA related cancers (breast, ovarian, colon, pancreatic, prostate, melanoma), or people with ancestry associated with BRCA cancers (Ashkenazi, Black/African- American)
- Offer risk reducing medications to women at high risk of breast cancer (over 35 yo)
- Mammography 50-75; shared decision making 40-49 (stay tuned on this…)
- Hepatitis C screening one time at least for 18-79 year olds

Case

68 yo F presents for preventive health visit. She is healthy & has never smoked. She has received all recommended vaccines. Her prior screening tests have all had normal results, with last mammogram 18 mo ago, lipids & Pap smear 3 yrs ago, and colonoscopy 6 yrs ago.

Which screening or preventive measure is advised for her now, based on Grade A or B recommendation from USPSTF?

A. *Bimanual pelvic examination*
B. *Dual-energy Xray absorptiometry (DEXA) scan*
C. *Mammogram*
D. *Pap smear*
E. *Ultrasound for abdominal aortic aneurysm*

Case courtesy of Eliza Sutton

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- Which screening or preventive measure is advised for her now, based on Grade A or B recommendation from USPSTF?

A.	*Bimanual pelvic examination*	*Grade I*
B.	*Dual-energy Xray absorptiometry (DEXA) scan*	*Grade B*
C.	*Mammogram*	*biennial screen = Grade B*
D.	*Pap smear*	*Grade D*
E.	*Ultrasound for abdominal aortic aneurysm*	*Grade D*

Slide courtesy of Eliza Sutton, MD

Clinical Scenario: Screening in asymptomatic women age 65 & over

USPSTF (Grade B) Recommended	
Osteoporosis screening	• **At age ≥65 for women at average risk** • **At younger age for women at higher risk**
Breast cancer screening	**Mammography every 2 years for ages 50-74**
USPSTF Not Recommended (Grade D) or Evidence Insufficient (Grade I)	
AAA screening	**Not Recommended for women who never smoked *(Grade I, evidence insufficient, for screening women age 65-75 who have smoked)***
Cervical cancer screening	**Age ≥ 65 if prior screening was adequate* and who are not otherwise at high risk for cervical cancer** ***Past 10 yrs: ≥3 normal Pap, or ≥2 Pap & HPV normal, no CIN2 or greater within 25 years***
Screening bimanual exam	**Insufficient Evidence (Grade I)** **ACP recommends *against* (clinical practice guideline 7/2014)**
Ca, Vit D for *primary* prev.	**Grade D for Ca, Vit D or combined supplementation for prevention of fracture in community dwelling adults (and no h/o osteoporosis)**

Slide courtesy of Eliza Sutton, MD

BREAST LESIONS

Workups

Case

A 24-year-old woman is evaluated for a breast lump.

-no breast trauma or nipple discharge

-Nulliparous, regular menstrual cycles.

-No PMH. FH: Mom breast cancer at age 58 years; no other family members have cancer.

Meds: OCP

PE: Normal VS. BMI is 25. Breast: no skin changes. Notable for a firm, 3-cm, non-tender, well-circumscribed mobile mass. No lymphadenopathy.

Which of the following is the most appropriate test to perform in this patient?

A- Screening Mammography

B- Ultrasound

C- MRI

D- Diagnostic Mammography and Ultrasound

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Meds: OCP

PE: Normal VS. BMI is 25. Breast: no skin changes. She has a firm, 3-cm, non-tender, well-circumscribed mobile mass. No lymphadenopathy.

Which of the following is the most appropriate test to perform in this patient?

A- Screening Mammography

B- Ultrasound

C- MRI

D- Diagnostic Mammography and Ultrasound

Key Point: Screening vs. Diagnostic Imaging

- Screening guidelines don't apply when evaluating a symptom or finding
- Symptoms or findings need ***diagnostic imaging*** to identify, or rule out, a concerning underlying explanation

Courtesy of Eliza Sutton

Case

A 44-year-old woman with a breast lump x1 week.

There is no nipple discharge. G2P2, first birth at age 25. Menstrual cycles are regular. PMH: none, FH: no cancer. No Meds.

PE: vital signs are normal. BMI is 28. Breast exam: Examination of the breasts: no skin changes. A mass is noted in the upper inner area of the right breast, 1.8 cm; it is firm, mobile, and non-tender, with ill-defined margins. No lymphadenopathy. Exam otherwise unremarkable.

Which of the following is the most appropriate diagnostic test to perform next?

A- Breast MRI

B - Core-needle biopsy

C- Diagnostic mammography and ultrasonography

D- Ultrasonography

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C. Diagnostic mammography and ultrasonography

D. Ultrasonography

Key Point: Person's age determines diagnostic workup

<30	• Ultrasound only
≥30	• Diagnostic Mammo AND • Ultrasound

Ask yourself:
Diffuse vs. Focal Breast symptoms

- Many women have bilateral **cyclic breast pain** with onset of menses. Usually bilateral, lasts for several days, and resolves with/after period.

- Women with **non-cyclic or focal breast pain**, even without palpable mass should undergo age appropriate diagnostic imaging. Approximately 1% of such patients may have breast cancer at the site of pain.

  - *Other causes of focal pain: trauma, cysts, duct ectasia, mastitis, ligamentous stretching due to large breast size, or a breast mass.*

Key Point: Diffuse vs. Focal symptoms BIG DIFFERENCE

Diffuse

- Bra fit
- Hormonal changes
- Ok to monitor 1-3 mo

Focal

- “Lump equivalent”
- Diagnostic imaging

VAGINAL BLEEDING

Too little, too much, wrong time

Bleeding abnormalities- Three types

Amenorrhea	Menorrhagia	Post-Menopausal
• Missing or absent periods	• Bleeding Too much	• Bleeding when you shouldn't be

Case

27 year old woman presents for evaluation of nausea. She has a past medical history of bipolar disorder and PCOS. She has been having irregular periods for the past three years, LMP was about 4 months ago. Meds: Metformin, Lithium, Risperidone. She was recently started on Metformin, which coincided with onset of chronic nausea. She is sexually active with one male partner with intermittent condom use.

What is the next best step to evaluate her nausea?

A. Pregnancy Test (beta-hcg)
B. Thyroid function testing
C. Stop Metformin
D. Gastric emptying study

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What is the next best step to evaluate her nausea?

A. Pregnancy Test (beta-hcg) *best answer*
B. Thyroid function testing others OK, but not “best"
C. Stop Metformin
D. Gastric emptying study

Key Point: PREGNANCY!

- You should have a REALLY good reason to pick something OTHER than pregnancy test for reproductive aged women if it is an answer choice

- Consider possible pregnancy in setting of:
  - *Acute pelvic pain and/or vaginal bleeding*
  - *Nausea, breast tenderness, new fatigue, menstrual changes, abdominal bloating, thromboembolism*
  - *Starting contraception*

- Consider potential for intended or unintended pregnancy when prescribing:
  - *Teratogenic medications*
  - *Medications which may change conception risk*

Slide content courtesy of Eliza Sutton, MD

Case

A 28 year old woman w/ 5 month history of amenorrhea.

Formerly had normal menses. Eats a healthy diet, does not exercise regularly.

She reports a lot of stress at work.

PMH: negative, FH: none, Meds: None

On exam, afebrile, BP 110/70, HR 60, RR 10, BMI 23. Visual field testing is normal, as are thyroid and pelvic exams. She has mild facial acne. No galactorrhea.

Labs reveal slightly, low/normal FSH, normal TSH and neg. hgc. Progestin challenge does not produce withdrawal bleeding.

Pituitary MRI is normal.

What is the cause of her amenorrhea?

A) Functional hypothalamic amenorrhea

B) Polycystic ovarian syndrome

C) Primary ovarian insufficiency

D) Subclinical hypothyroidism

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Labs reveal slightly, low/normal FSH, normal TSH and neg. hgc. Progestin challenge does not produce withdrawal bleeding. Pituitary MRI is normal.

What is the most likely cause of her amenorrhea?

A)	Functional hypothalamic amenorrhea	No bleeding with progestin challenge= not enough estrogen
B)	Polycystic ovarian syndrome	Would have bled with progestin challenge
C)	Primary ovarian insufficiency	FSH would be high
D)	Subclinical hypothyroidism	TSH normal

Amenorrhea/ Oligomenorrhea ddx

Hypothalamus

- *Stress, eating disorders, exercise*

Pituitary

- *Sheehan's, Prolactinoma/Prolactinemia (breast feeding, antipsychotics)*

Ovary

- *PCOS, Ovarian Insufficiency, Menopause*

Uterus

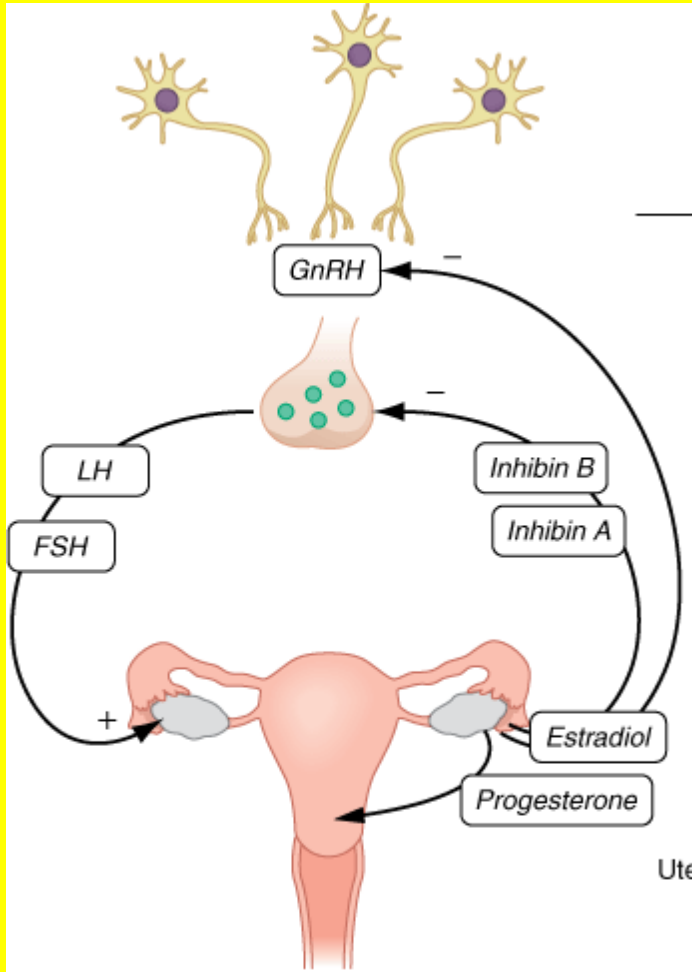
- *Asherman's/scarring, PREGNANCY*

Vagina

- *Anatomic obstruction*

Other

- *Thyroid*
- *CAH*



	Primary	Secondary
Hypothalamus	27%	36%
Pituitary	2%	15%
PCOS	7%	30%
Ovary	43%	12%
Uterus/outflow tract	19%	7%

Source: Fauci AS, Kasper DL, Braunwald E, Hauser SL, Longo DL, Jameson JL, Loscalzo J: *Harrison's Principles of Internal Medicine*, 17th Edition: http://www.accessmedicine.com

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Bleeding abnormalities- Three types

Amenorrhea	Menorrhagia	Post-Menopausal
• Missing or absent periods	• Bleeding Too much	• Bleeding when you shouldn't be

Soaking super pad or tampon every hour for consecutive hours, needing to change tampon/pad at night, clots larger than a quarter size, lasting >7 days, cycles shorter than 21 days

PALM- COEIN for heavy bleeding

Structural

Polyp

Adenomyosis

Leiomyoma

Malignancy/
Hypertrophy

Non-
Structural

Coagulopathy

Ovulatory
dysfunction

Endometrial

Iatrogenic

Not classified

Bleeding abnormalities- Three types

Amenorrhea	Menorrhagia	Post-Menopausal
• Missing or absent periods	• Bleeding Too much	• Bleeding when you shouldn't be

Case

A 48 year old woman comes in for vaginal bleeding. She reports she has “never” had regular periods her whole life, but never saw anyone about it since it didn’t bother her. Recently, however, she has had three periods that are lasting 14 days, and is concerned about it. She is not sexually active for >1 year.

PMH: BMI 38, HTN, DM for past 10 years, well controlled

FH: father with colon ca, passed away

EXAM: BP 160/ 85, blood in vaginal vault, no other exam findings

What is the next best step ?

A. Start oral contraceptives
B. Pelvic Ultrasound
C. Pregnancy Test
D. Monitor

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A 48 year old woman comes in for vaginal bleeding. She reports she has “never” had regular periods her whole life, but never saw anyone about it since it didn’t bother her. Recently, however, she has had three periods that are lasting 14 days, and is concerned about it. She is not sexually active.

PMH: obesity (BMI 34), HTN, DM for past 10 years, well controlled

FH: father with colon ca, passed away

EXAM: BP 160/ 85, blood in vaginal vault, no other exam findings

What is the next best step ?

A. Start oral contraceptives	Need to know the cause first
B. Pelvic Ultrasound	Pelvic imaging of choice
C. Pregnancy Test	Not sexually active
D. Monitor	Nope! Need to r/o cancer

Key Point: Don't "sit on":

Post-menopausal women with ANY uterine bleeding, regardless of volume

Age 45 years to menopause
Bleeding that is newly:
Frequent
Heavy
Prolonged

Younger women with risk factors for endometrial cancer
DMII, PCOS, Obesity, Smoking, FH

Key Point: Evaluate AUB

- Pregnancy test, CBC, PT/aPTT, TSH
- Pelvic exam
- Pelvic Ultrasound
- Endometrial biopsy if >45yo and endometrial stripe >4mm

  Or

  Younger with risk factors

Key Point: Treat AUB

NSAIDS (Officially first line. Cheap! Avoid if CAD, CKD)

Progestin- Oral or LNG- IUD (IUD better from a bleeding perspective)

Combination oral contraceptives (BEWARE contraindications to estrogen!)

Tranexamic acid ($$, increase clot risk)

Surgery

FAMILY PLANNING

Contraception, Preconception, Chronic Conditions

Case

A 35-year-old woman here for blood pressure follow up. She hopes to become pregnant and would like to stop her oral contraceptive. She does not smoke, drink, or use drugs. She is in a monogamous sexual relationship and has had no sexually transmitted infections.

PMH: hypertension, Type 2 DM, anxiety.

Meds: OCP, lisinopril, metformin, sertraline and acetaminophen as needed.

PE: vital signs are normal. Exam unremarkable.

In addition to starting folic acid, which of the following medications should be stopped at this time?

A. Metformin

B. Lisinopril

C. Sertraline

D. Acetaminophen

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Key Point: Medication safety in pregnancy

NO	OK
• ACEs, ARBs, Renin blockers • NSAIDS • Warfarin • Valproic Acid • Lithium • Accutane/Retinoids • “-cycline” abx (tetra, doxy) • Paxil (SSRI exception)	• Metformin, Insulin • SSRIs (sertraline preferred) • Labetalol, Metyldopa, CCBs, Diuretics* • Acetaminophen

Folic Acid: Grade A Recommendation

The USPSTF recommends that all women who are planning or capable of pregnancy take a daily supplement containing 0.4 to 0.8 mg (400 to 800 µg) of folic acid.

Case

A 37-year-old woman here to discuss contraceptive options. She is married and has a 1-year-old child. She says that her child was a “surprise” because she had a hard time remembering to take her OCP. Periods are regular but heavy.

PMH: none

SH: Smokes a pack of cigarettes daily. She has no other health issues and takes no medications.

Upreg negative today

Discussed smoking, she is not ready quit or cut back right now.

Which of the following is the most appropriate therapy for this patient?

A. Estrogen-progestin oral contraceptive

B. Copper IUD

C. Progesterone-containing intrauterine device

D. Progesterone-only “mini pill”

Case

A 37-year-old woman here to discuss contraceptive options. She is married and has a 1-year-old child. She says that her child was an “accident” because she had a hard time remembering to take her Combined OCP. Periods are regular but heavy.

PMH: none

SH: Smokes a pack of cigarettes daily. She has no other health issues and takes no medications.

Upreg negative today

Discussed smoking, she is not ready quit or cut back right now.

Which of the following is the most appropriate therapy for this patient?

A. Estrogen-progestin oral contraceptive	Has contraindications- smoking >35yo (and didn’t work)
B. Copper IUD	Will make bleeding heavier
C. Progesterone-containing intrauterine device	>99% effective, will reduce bleeding
D. Progesterone-only “mini pill” (norethindrone)	Even harder to take (q24 hours exactly)

Key Point: Recognize Contraindications to Estrogens

- >35 years old and smoking >15 cigarettes a day
- Migraine with aura
- History of: CAD, vascular disease, VTE
- DM with known microvascular disease (retinopathy, nephropathy, neuropathy) or other vascular dz, DM >20 years
- HTN with BP> 160 systolic
- Decompensated cirrhosis

MENOPAUSE

Case

A 56-year-old woman with severe vaginal itching and discomfort, progressively worse x4 mo. No discharge or odor. Intercourse has become painful despite lubricant use. PMH: Menopause since age 53 years. Meds: none

On physical examination, vital signs are normal. Physical examination reveals dry vaginal epithelium that is smooth and shiny. Blood vessels are visible beneath the pale vaginal mucosa, and increased friability is evident.

Vaginal pH is 6.0. Wet mount shows occasional leukocytes. Whiff test result is negative. There are no clue cells and no hyphae on potassium hydroxide preparation.

What is the most likely diagnosis?

A. Vulvovaginal yeast infection

B. Atrophic vaginitis (GU syndrome of menopause)

C. Vulvar lichen sclerosis

D. Contact dermatitis

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GU syndrome of menopause

- Symptoms typically start a few years after menopause
- First line, over the counter “moisturizers” (prn) and lubricants for intercourse
- Topical vaginal estrogen fine for ALMOST everyone (check with oncologists in some cases). Not absorbed systemically! (unless used incorrectly)

Case

51 year old woman comes to see you for help with 5 month history of hot flashes, getting worse, and now occurring multiple times a day, very disruptive to her life and sleep. LMP 9 months ago. No personal or FH cancers. Meds: none. PMH: none. SH: none.

Exam: VS normal. Exam unremarkable.

What is the most appropriate management for this patient?

A. Hormone therapy with estrogen and progesterone
B. Hormone therapy with estrogen alone
C. Vaginal estrogen
D. Hormone therapy with progesterone alone

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Exam: VS normal. Exam unremarkable.

What is the most appropriate management for this patient?

A.	Hormone therapy with estrogen and progesterone	IT IS OK!
B.	Hormone therapy with estrogen alone	She has a uterus
C.	Vaginal estrogen	Won't help
D.	Hormone therapy with progesterone alone	Won't help

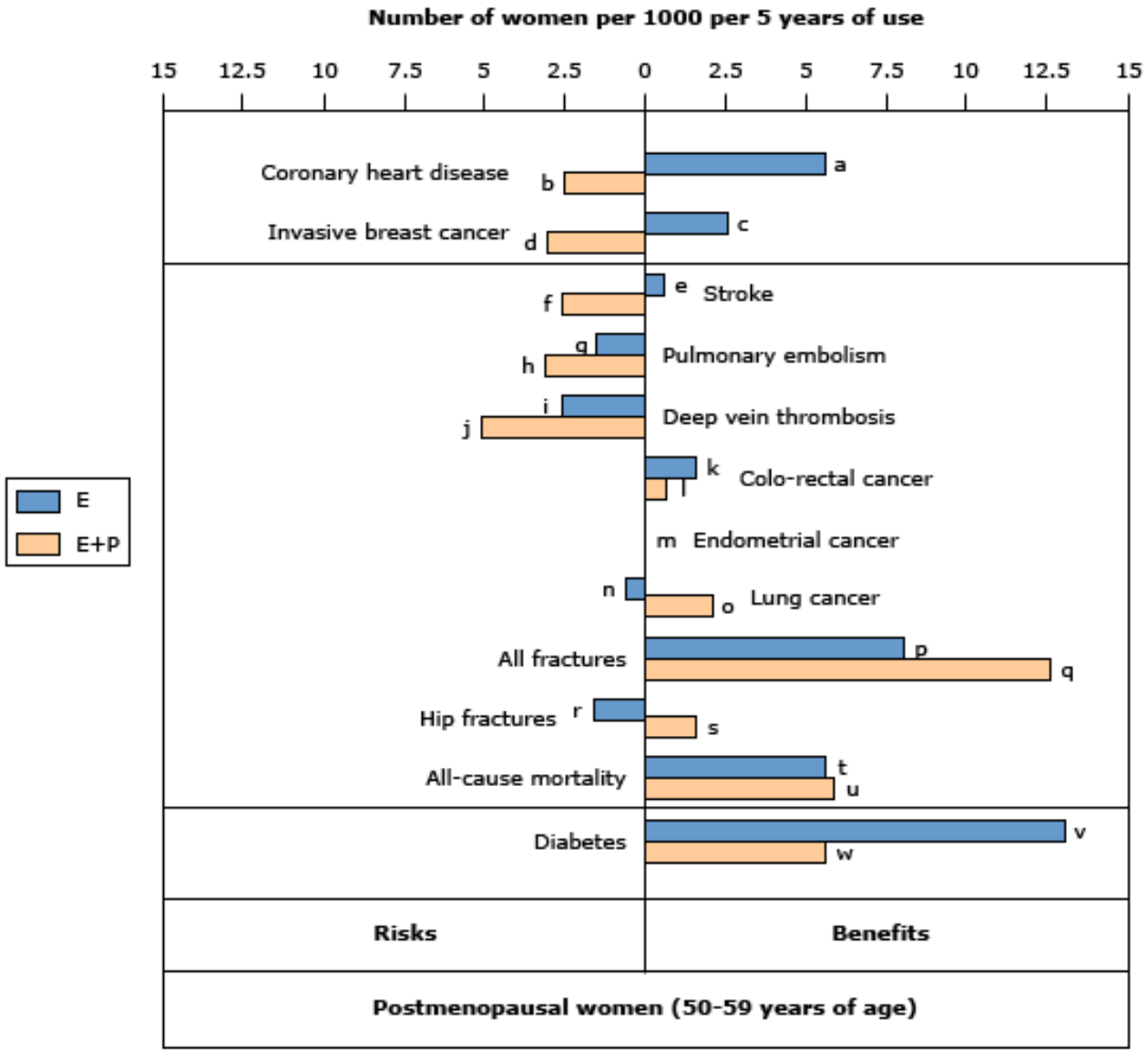
Manage vasomotor symptoms of menopause

- Combination systemic HRT (estrogen+ progesterone) is an option for *moderate to severe hot flashes* in menopausal women who are under the age of 60 and within 10 years of menopause.
- After 5 years of use, risk of breast cancer increases
- Candidates: not at increased risk of breast cancer, <10% CVD risk, or history of stroke or VTE. Migraine, even with aura is OK.
- Do not use HRT for primary prevention of chronic diseases. (USPSTF Grade D)

Regimens

Has a uterus	No uterus	Non-estrogen alternatives
• E+P • Progestin to protect from endometrial hyperplasia. Can be oral, patch or IUD	• Estrogen alone	• Gabapentin, (Es)citalopram, (des)Venlafaxine, Paroxetine- benefits more modest

Risks and benefits of menopausal hormone therapy (MHT)



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THANK YOU AND GOOD LUCK!

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FEEDBACK PLEASE!

Please consider filling out this peer teaching evaluation for my academic promotion.

This is separate from the feedback you will be asked to give ACP for the board review course.