Where's the Bathroom?

&

Other Urgent Women's Primary Care Health Issues After 60

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Disclosures

- **Vendor to:**
  - Cord Blood Registry

- **Speakers Bureau/Advisory Board:**
  - Hologic
  - Fogarty Institute for Innovation
  - AirXpanders

- **Spokesperson:**
  - Hologic

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Objectives

- Participants will understand the rational for the current primary care screening guidelines for Cervical and Breast Cancer for women over 60.
- Participants will describe the algorithm for diagnostic work up of common Genitourinary symptoms in women over 60.
- Participants will list at least 3 evidence based treatment options in the treatment of genitourinary symptoms and conditions in women over 60.
Post Menopause

- 1/3 to ½ of a woman’s life
- Women > 60 = 32 million
- > 65 = 23 million > 85 = 3.2 million
- With age there are numerous medical issues that are more likely to affect an individual woman’s health.
- We’ll concentrate today on the issues not usually covered in other presentations

Big Distinction with hormones

- Systemic vs. Localized Estrogen
- Whole body vs. just the vagina
- Older Guidelines: Least amount for the least amount of time for systemic
- New thinking: Estrogen timing hypothesis
- If a woman has been doing well on Estrogen for > 5 years and has no cardiovascular risks, then leave the choice to her
Systemic Hormones

- Both Estrogen Treatment (ET) and Estrogen Progestin Treatment (EPT) may reduce total mortality by 30% when initiated in women younger than age 60
  - Reduction in osteoporotic fracture
  - Reduction in vasomotor symptoms
  - Improvement in quality of life
  - Reduction in musculoskeletal pain

Systemic Hormones

- ↑' d risk of breast CA w EPT
- ↓7 d risk of breast CA w ET alone
- Mixed research on affects on memory and cognition
- ↑' d risk of VTE
- *Not* to be used as primary or secondary prevention for CVD

Head to Toe Issues

- Hair loss – Mostly due to aging and genetics
- Wrinkles – Loss of collagen in the skin
  - Including the vagina and labia
- Joint and muscle aches – Age related and thought to be related to loss of collagen
- Cognition – Multifaceted, age, genetics
## Working Memory

### Baseline Dopamine levels

<table>
<thead>
<tr>
<th>Women with</th>
<th>Low</th>
<th>High</th>
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<tr>
<td>When E2 ➕</td>
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Depression

Emotions – Increased rates of depression in women compared to men

In both women with previous hx and those without

- Aging and mortality issues
- Empty nesting
- Health and mobility
- Socio-economic
- Estrogen: Serotonin connection
- Sleep

Freeman, E W. Women’s Midlife Health, 2015
Estrogen and Serotonin

- E2 increases the production of tryptophan – the precursor to serotonin
- E2 increases the amount of time serotonin stays in the synapse
- E2 Increases density, distribution of serotonin receptors
- E2 increases serotonin transporter sites
Breast Cancer Screening
Breast Cancer Screening

- Women 40+ : Mammogram q yr while healthy
- Age alone should *not* be the reason to stop
- Provided no serious, chronic health problems
- Women with serious health problems or short life expectancies should discuss with HCP’s whether to continue having mammograms.

American Cancer Society Guidelines
Breast Cancer Screening

- USPTFS: Every 2 years from 50-74
- For women 75+ current evidence is insufficient to assess benefits and harms
- Breast Density: Independent Risk factor for Breast cancer
- Mandatory inform legislation in 21 states
- Standard of Care: Tomo or ABUS AFTER mammography
- Then diagnostic procedures if necessary
New Breast Cancers by Age

Percentage of New Cases

SEER, 18 2007 -2011, NCI, NIH.
Breast Cancer Mortality

Percent of Deaths

SEER, 18 2007 -2011, NCI, NIH.
Mortality influenced by co-morbidities

- Observational Data from SEER of > 64K women with breast cancer
- Median age at diagnosis: 75
- 5-year overall survival rates were highest for women with:
  - Younger age
  - Earlier tumor stage
  - Lower tumor grade
  - Positive estrogen receptor status
  - No comorbidities

Co-Morbidities & Hazard Ratios

- Liver Disease HR 2.32 $p < 0.001$
- Chronic Renal Failure HR 2.20 $p < 0.001$
- Dementia HR 1.96 $p < 0.001$
- CHF HR 1.70 $p < 0.001$
- COPD HR 1.52 $p < 0.001$
- Diabetes HR 1.41 $p < 0.001$
- Previous Cancer HR 1.27 $p < 0.001$

Survival times
Cervical Cancer Screening
Pap Smears Guidelines

- **USPSTF:**
  - 30 - 65 q 3-5 yr +/- HPV co-testing
  - Stop at age 65 if adequate prior screens

- **ASCCP (American Society for Colposcopy and Cervical pathology):**
  - 30-65: 30 - 65 q 3-5 yr +/- HPV co-testing
  - Stop at age 65 *only if* 3 neg Paps or neg HPV
  - Stop at age 65 after hysterectomy for benign disease

ASCCP Pap Smear Guidelines, 2012
Stop Paps at age 65:

- For women with adequate *NEGATIVE* prior screening
- For women with NO CIN2+ within the last 20y

**Definition of adequate negative screening:**

- 3 consecutive negative Paps or
- 2 consecutive negative HPV tests: defined as tests within 10 years of stopping; most recent within 5 years.

ASCCP 2012 Pap Guidelines
Really?

- Screening “should not resume for any reason, even if a woman reports having a new sexual partner.”
Rationale

- CIN 2+ is rare after age 65
- Most ABNL Paps even with a + HPV co-test are false + and do NOT reflect precancer
- HPV risk remains 5 - 10%
- Colposcopy, biopsy & treatment are more difficult and more likely to cause harm.
- Incident HPV infection unlikely to progress to cancer during her lifetime.

Chen HC et al. JNCI 2011;103:1387-96.
After Hysterectomy?

- Stop p hysterectomy w removal of cervix and NO hx of CIN2+
- Evidence of adequate negative prior screening is NOT required and is NOT useful, here’s why:
  - Vag cancer rate is 7/million/year
  - 1,860 women followed after hyst
  - 2% had VAIN, 0 had cancer
  - Risk of Pap abnormality after hyst = 1%.

When to Continue Paps

- If history of:
  - CIN2
  - CIN3
  - AIS – Adenocarcinoma in Situ
- Continue “routine screening” for at least 20 years, “even if this extends screening past age 65.”
Ovarian Cancer
Ovarian Cancer

- 9th most common cancer
- 22,280 (3% of women in US)
- 15,500 deaths annually
- Median age at diagnosis 63
- >65% of women diagnosed with Stage III/IV
Women more aware

- Pelvic +/- Abdominal pain
- Bloating
- Constipation
- Bladder issues
- Feeling full, loss of appetite
- Back pain
Detection is difficult

- Genetics & Increased risk during a woman’s lifetime
  - $BRCA \ 1$: 35-70% increased risk
  - $BRCA \ 2$: 10 – 30% increased risk
  - Lynch Syndrome: Hereditary NonPolyposis Colon Cancer (HNPCC) : 10%.
- No approved screening tests
- Incidence highest in women > menopause
- Symptoms drive Transvaginal U/S, Serologic Testing
The Problem with CA-125

- Did you get the email?
- Many reasons why it can be elevated
- Low sensitivity 68-77%
- Negative predictive value NPV 86-88%
- Compare with Clinical impression:
  Sensitivity: 75%, NPV: 88%
Leave nothing cancerous behind

- Only 30 - 50% of women are appropriately referred to a gynecologic oncologist
- Survival (recurrence) depends upon the amount of residual tumor left after surgery
- Pts do best if they have:
  - Complete surgical staging
  - Cytoreduction
Leave nothing behind
Optimal Cytoreduction

Proportion surviving

Time since initial surgery (years)

www.mayoclinicproceedings.com
New Biomarkers OVA 1

- For pre-operative prediction, not screening

- Ova 1 Combining 5 Biomarkers increases Sensitivity 96% for stage 1 and 2
  - Beta-2 microglobulin, CA-125, Apolipoprotein A1, Prealbumin, Transferrin

- Specificity 35 – 40%
  - More referrals for benign disease

- Combine with Doppler U/S

- Referral to GYN Onc for higher likelihood of survival

- $600

Li, A J Contemporary Ob/Gyn, 2012.
New Biomarkers: ROMA

- Risk of Ovarian Malignancy Algorithm
- Pre-surgical assessment
- Uses CA 125 + HE4, and menopausal status
  - human epididymis protein 4
- Sensitivity 76% pre-menopausal women
- Sensitivity 92% post-menopausal
- Specificity 74-76%
- Cost is $100
Multi-modal screening

- Collaborative Trial of Ovarian CA Screening (UKCTOCS)
  - 200K women aged 50-74 followed for 11 years
  - ½ no screening
  - ¼ transvaginal U/S alone
    - 35 surgeries for every 1 cancer detected
  - ¼ Multi-modal screening
    - Used rising CA 125, Age – repeated at 1 year, repeated 3 months later or transvaginal U/S
    - 40% detected at Stage 1-11A
    - 3 surgeries for every 1 cancer detected
    - 20% decrease in mortality

GSM
Genito Urinary Syndrome of Menopause
aka
Vaginal Dryness and Incontinence
GSM
The Vulvovaginal symptoms

- Symptoms of vag dryness, vulvovaginal irritation/itching, & dyspareunia ~10% - 40% postmenopausal women

- Unlike VMS, which abates, vaginal atrophy is progressive, unlikely to resolve on its own

- Tx: regular sexual activity, lubricants & moisturizers, and local vaginal estrogen

VIVA Trial 2011

- Vaginal Health: Insights, Views & Attitudes
- Survey of 3250 Menopausal women from North America & Northern Europe
- 75% felt atrophy had a neg impact on quality of life
- 30% would consider vaginal estrogen
- Concluded women had a low understanding of urogenital atrophy

Nappi & Kokot-Kierepa, Climacteric. 2012
Vulvar Vaginal Atrophy VVA

- REVIVE 2013 Survey n= 3046 found:
  - Only 7% talked with HCP about VVA
  - 59% reported that VVA interfered with sex
  - 85% experienced “loss of intimacy” w partner
  - 47% felt VVA affected their relationships
  - 29%: negative impact on sleep
  - 27%: negative impact on their general enjoyment of life

Nappi & Kokot-Kierepa, Climacteric. 2012
Urogenital Atrophy

- **Physiology:**
  - Early stages associated with thin dry, erythematous vaginal epithelium
  - Later, loss of labial fat pad, labia majora pendulous, labia minora less distinct
  - Prepuce covering clitoris decreases, clitoris may appear larger
  - Tissues of vulva become pallid, thin, dry
  - Increased tenderness of vestibule
Well-estrogenized Premenopausal State

Low-estrogen Postmenopausal State

Image courtesy of Dr. Diane Todd-Pace
Loss of Estrogen

- Vagina loses elasticity, shortens, narrows, easily traumatized and irritated
- Loss of rugae, fornices become obliterated, cervix flush with vaginal vault
- Petechiae may be present
- pH greater than 5.0, parabasal cells dominate
- Repopulation with diverse vaginal flora leads to frequent UTIs
- Worse for women on chemo (tamoxifen, Ais)
Bacterial Vaginosis

- Higher vaginal pH (>4.5) leads to overgrowth of bacteria
- Increased incidence of BV
- May be asymptomatic
- Symptoms include: sour odor, fishy odor, itching, burning, increased friability,
Treating BV

- Metronidazole gel 0.75%
  - 1 applicator (5 g) per vagina q hs x 5

- Metronidazole 500 mg PO BID x 7

- Clindamycin cream 2%
  - 1 applicator (5 g) per vagina q hs x 7

CDC 2015 STD Treatment Guidelines.
BV Treatment Alternatives

- Tinidazole 2 g PO q day x 2
- Tinidazole 1 g PO q day x 5
- Clindamycin 300 mg PO BID x 7
- Clindamycin ovules 100 mg per vagina q hs x 3 nights

CDC 2015 STD Treatment Guidelines.
Nonhormonal treatment

- Use it or Lose It
- Regular sexual activity promotes blood flow
- Water-based vaginal lubricants and moisturizers
- Masturbation or use of a vibrator to maximize stimulation
- Cleansing with water but not soap

Prevention & Treatment

• Estrogen restores vaginal blood flow, decreases vaginal pH, & improves the thickness elasticity of vulvovaginal tissue

• Many women on systemic HT also need vaginal estrogen

• Dose may need to be adjusted as women age, and as ER α activity decreases

• Low-dose, local, prescription vaginal ET does not increase serum levels of Estrogen

Localized Vaginal Estrogen

- Is effective and well tolerated
  - May see improvement in 3-6 weeks
- Has limited systemic absorption
- No need for progestins
- No increased risk of Endometrial or Breast Ca
- Does not protect the bones
- Does not treat hot flashes or night sweats
- Improves sexual functioning
- Reduces Urinary symptoms
Vaginal Estrogens

- Low-dose, local, prescription vaginal ET products FDA-approved for treating vaginal atrophy include:
  - Estradiol vaginal cream (Estrace Vaginal Cream)
  - CEE vaginal cream (Premarin Vaginal Cream)
  - Estradiol vaginal ring (Estring)
  - Estradiol hemihydrate vaginal tablet (Vagifem)

- Discuss black box warning
Treatment considerations

- Estradiol & CEE creams
- 1 - 2 grams per vagina every other day x 2 weeks
- Use small amount to rub on external genitalia *ALSO*
- After 2 weeks: 1 - 2 grams twice/weekly
Estrogen Pellets

- Estradiol hemihydrate vaginal tablet (Vagifem)
- 10 mcg pellet – hydrophilic – sticks to the lateral side walls of vagina
- Insert in vagina every other night x 2 weeks, then reduce to twice/weekly
- May also consider using a topical cream externally for the first 2-4 weeks as distribution of Estrogen to entire vulva takes longer
Estradiol Vaginal Ring (Estring)

- Slightly opaque ring with a whitish core containing a drug reservoir of 2 mg Estradiol
- Once placed in the vagina: 7.5 mcg \( E_2 \) released every 24 hours for 90 days
- Many clinicians insert with a pessary
- Not to be confused with NuvaRing
Fractional CO 2 Laser therapy

- Laser penetrates vaginal epithelium to stimulate blood flow and collagen production
Fractional CO 2 laser

- Sexual functioning assessed in study of 77 post menopausal women
  - Mean age 60.6 years
  - Evaluated with FSFI at 12 weeks
  - Statistically significant improvement in sexual functioning
  - Statistically significant improvement in burning, itching, dryness and dysuria
  - 17 out of 20 women who were NOT sexually active prior to TX, were able to resume sexual activity
  - Improved QOL

Ospemifene

- SERM taken orally q day to reduce dysparunia
- The estrogen like effects in the vagina are unique from other SERMS
  - Increases vaginal epithelial cells, decrease in parabasal cells, improves vaginal maturation index and decreases pH
  - Does not stimulate the endometrium
  - Similar to tamoxifen, seems to be anti-estrogenic in breast, more studies needed

Moisturizers & Lubricants

- Vaginal moisturizers – Non-hormonal, no prescription, attracts moisture to vagina, improves pH. Use 2-3 times/week for maintenance.

- Lubricants – Water or silicon based, use with sex to help with gliding, also helps with arousal.
Creativity with Intimacy

- Number of physical changes with aging that affect intimacy
- New products available to help
  - Wedge pillows for support
  - RecoverSex.com for illustrations of positions after surgery
  - Finger vibrators
  - Other toys to help maintain erections and/or vibrate
Vulvodynia risk factors

- Nerve injury or irritation
- Infection or trauma may cause nerve cells to become more sensitized
- Genetic factors may cause chronic pain and chronic inflammation
- Atopic dermatitis from pads, leaking urine, harsh soaps
- Hormonal changes
- History of sexual abuse
- Antibiotic use
Rashes of Shame

- Imperfect storm:
- Leaking + Pads + Prolonged sitting = Rashes, skin breakdown and discomfort
- Vicious cycle
- Many women just “put up with it”
- Use home remedies and ignore their symptoms
Start with H & P

- Medications can exacerbate skin reactions
- Oxalate issues
- If a patient has had an allergic reaction (skin) to one medication that has a specific cytochrome pathway, look at their list of meds
- Threshold theory: Can tolerate 1 glass, but not 2
- Can tolerate 2 variables, but not 3
Treatment

- Start with the easy things:
  - White cotton underwear
  - Air time
  - Cool water
  - Pat dry
  - Cool Salt water baths
  - Squirt bottles with salt water

- Cetaphil
- Hair dryer on a cool setting
- A little corticosteroid goes a long way BID (medium dose)
- Barrier creams if leaking
- Zinc is nice
- Think diaper rash
Treat any infection

- Treat any yeast
- If you use estrogen, it can burn
- Consider Lidocaine cream (gel will burn)
- Ice packs
- Aveeno bath
- Cucumber, Aloe
- Calm the skin
- Follow up in 3 days

- Barrier creams are difficult to get off the skin
- Be sure they have adequate nutrition (protein)
- Multi-vitamin
- Vitamin D
Mucosal skin breakdown?

- Vaginal epithelium from cystocele or rectocele prolapse and skin breakdown
- Cervix, uterus skin breakdown?
- Bleeding? Lacerations?
- Referral to a uro-gynecologist for consult and options
- In short term: Vaginal estrogen for skin integrity, which helps with muscle tone, pessary to push prolapse back.
- Estring + pessary
Myth Busting

- Remember your audience: They grew up with Dial soap, hot water and scrub brushes to make sure things were clean.
- For them: Harsh, strong, powerful = Clean
- Hot water is NOT good
- Scrubbing makes it worse
- Avoid Soap for awhile
- Be gentle with yourself
Lichen Sclerosis

- Thin patchy white skin
- More common post menopause
- Recurrent/Chronic condition
- May or may not have
  - Itching, burning, pain
- Loss of Micro-Architecture
  - Aglutination
  - Phimosis – labia minor adhere to major
  - Scarring
Treating Lichen Sclerosis

- Clobetasol propionate 0.05%
- Ultra potent corticosteroid ointment
  - Mucus membranes of Vulva are slightly steroid resistant
  - Ointment not cream, due to irritating additives in many creams
  - Apply BID for 4 weeks, then Q day on going
  - Women may be able to reduce usage to 1-2 times/week

2nd line Tx Lichen Sclerosis

- When Clobetasol is not effective
- Referral to Derm
- Topical pimecrolimus cream 1%
  - Immunosuppressant agent: inhibits T-cell activation
  - Decreases pruritus, burning, and inflammation
  - Increased risk of Squamous Cell Carcinoma
What about Retinoids?

- Both oral and topical are not very effective
- May help with the hyperkeratosis or scarring when clobetasol not effective
- Derm consult or co-management
Fractional CO$_2$Laser Tx

- Mechanism of action
- Absorption of light energy by the water molecules within the epidermis
- Ablation of hyperkeratotic epidermis with a on-going thermal effect on underlying dermis
- Re-epithelisation with less hyperkeratosis
- Which enhances steroid uptake between treatments

Urinary complaints

- Incontinence is the most common complaint
- Other complaints include frequency, urgency, dysuria
- Mechanical and Gravitational forces at play
- Loss of Estrogen changes muscle tone
- Urethral sphincters out of position
- Weight & Neuropathies influence
Urinary etiology

- Is it?
  - Urinary tract infection
  - Overactive bladder (OAB)
  - Pelvic prolapse
  - Medications
  - Irritative or atrophic factors
  - Bladder disease (e.g., interstitial cystitis, cancer)
Gravity is NOT our Friend

Illustrations used with permission from The Hot Guide to A Cool Sexy Menopause, by Barbara Dehn NP. Illustrator: Andrea Kelley
Cystocele

- Pelvic/Vaginal Pressure
- Inability to have IC
- Dyspareunia
- Urinary Incontinence
- Inability to completely empty the bladder
- Frequent UTI
- Note the absence of rugal folds
- Mucosal epithelial lacerations common

“Something is falling out”
Cystocele
Flexible Ring with Support Pessary
Rectocele

- Vaginal Pressure
- Discomfort
- Protrusion?
- Hemorrhoid?
- Constipation
- Difficulty w/ BM
- Dyspareunia
Prolapsed Uterus
Procidentia

Photos courtesy of Barbara Dehn, 2012
Treating urinary incontinence

- Kegels
- Pelvic Floor PT
- OAB meds have side effects but may be effective at reducing # of trips to bathroom
- Systemic Estrogen – not shown to help
- Local Estrogen does improve vaginal and urethral tone
- Weight loss
Pelvic Floor PT

- Not your Mother’s Kegels
- Electrical stimulation
- Biofeedback
- Trigger points & massage
- Can be noninvasive w cognitive reeducation, modification, and retraining

There’s an App for That

- PeriCoach and Elvie – Vaginal probe, Bluetooth and smartphone to show women with visual feedback if they’re exercising correctly
  - $200 - $250

- BWOM – Smartphone App, with instructional videos, games, rewards for pelvic floor exercises

- Uresta –
Indirect urethral pressure

- Impressa - similar to a tampon, inserted in vagina, provides pressure on urethra
- Uresta - Small round device inserted into the vagina that provides pressure against the urethra
Protection

- Icon – pee-proof underwear
- Holds 6 teaspoons – 30 cc
- Washable, re-usable
- $28 – 35
- Donations to women in developing countries
Suspending the bladder

- Sacrocolpopexy: Suspension of the anterior and posterior vaginal wall to the sacral promontory.
- Re-creates the natural anatomic support provided by the uterosacral and cardinal ligaments.
- Using a mesh graft attaching the vagina to the sacral promontory.
Surgical treatment

- What about those slings?
- Cochrane review: 56 RCT total N = 5954
- Vaginal approach using robotic or laproscope decreases risks over abdominal approach
- Subsequent procedures: 13-29%
- Pt satisfaction is high with autologous tissue

References


- CDC 2015 STD Treatment Guidelines.


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Thank You

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