Brigham and Women's Hospital
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Women's Health: Take-home Messages and Clinical Pearls

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- Viewpoints and Online Editor, JAMA Internal Medicine
- Areas of interest: Trauma-informed Care, Women's Health, Medical Education, Narrative Medicine

Disclosures

- None

Learning Objectives

Briefly review key learnings from Women's Health presentations:

- Menopause – *Iyer*
- Medical Complications of Pregnancy – *Seely*
- Menstrual Irregularities – *Yialamas*
- Contraception – *Braaten*
- Osteoporosis – *Chou*
- Medication Abortion – Bachorik
- Cervical Cancer Prevention – *Goodman*
- Interpersonal Violence and TIC – *Rittenberg, Savage-Borne*

Menopause

Vasomotor symptoms: Menopausal Hormone Therapy

Benefits:

- The most effective treatment for VMS
- Also improves bone health, other menopause symptoms, and QOL

Risks:

- Breast cancer: Estrogen + progesterone - RR 1.26 (excess risk = 3/1,000 women taking HT x5 yrs). No increase breast ca mortality. Estrogen alone: No increase
- VTE/stroke: lower risk with transdermal compared to oral

Timing effect: No association with CVD risk if started within 10 yrs of menopause or <60yo – in fact, associated with improved CVD risk

Individualize therapy and use shared decision-making with each patient

Vasomotor Symptoms – Nonhormonal options

FDA-approved medications:

- Paroxetine 7.5-10mg at night. SSRIs, esp paroxetine & fluoxetine, relatively contraindicated w tamoxifen
- Fezolinetant: Neurokinin-3 receptor antagonist. Boxed warning re: liver injury. Check LFT baseline, 1, 2,3,6, 9 mo
- Likely soon to come: Elinzanetant: dual NK-1, NK-3 receptor antagonist.

Off-label medications:

- Several meds (other SSRI/SNRIs, oxybutynin, gabapentin) – +efficacy

Cognitive behavioral therapy, clinical hypnosis – +efficacy

Herbal/other therapies:

- soy, black cohosh, rhubarb, probiotics, cannabis, etc - **not** shown efficacy

Huang AJ, Faubion S, Grady D. Nonhormonal Treatment of Menopausal Vasomotor Symptoms. JAMA Intern Med. 2025 May 5. doi: 10.1001/jamainternmed.2025.0990. Epub ahead of print. PMID: 40323611.

Genitourinary syndrome of menopause (GSM)

- Very common (>50%), under-reported, often perceived as “normal”
- Mild symptoms: OTC lubricants with intercourse, daily moisturizers
- Moderate to severe symptoms: vaginal estrogen
  - NOT associated with increased endometrial cancer, VTE/PE, breast cancer, stroke
  - Multiple formulations, per patient preference
  - Other options include vaginal DHEA, oral ospemifene

Medical complications of pregnancy

Hypertension in Pregnancy

Risks:

- Fetal/neonate: low birth weight and induced prematurity
- Maternal: HTN Exacerbation → MI, CVA, AKI; superimposed preeclampsia (1 in 4)

Preconception:

- Stop ACEI/ARBs – Ask re pregnancy intention before prescribing

Treatment:

- 1st line: alpha-beta blocker (labetalol) or CCB (nifedipine)
- 2nd line: methyldopa (less favored now due to side effects/efficacy)
- Can often taper by third trimester

Goal BP is higher than in non-pregnant patients:

- Systolic 120-160, Diastolic 80-110

Diabetes in Pregnancy

Risks:

- Fetal: birth defects, macrosomia, prematurity, birth trauma, neonatal hypoglycemia
- Maternal: diabetic complications, preeclampsia, increased c/s risk
- Birth defect risk directly related to A1c at conception

Preconception:

- Normalize A1c: goal < 6.5%
- Switch to insulin

Treatment:

- Diet and glucose monitoring are mainstays
- Insulin requirement increases as pregnancy progresses

Goal A1c <6% (if achievable without too much hypoglycemia)

Diabetes in Pregnancy: Gestational Diabetes Mellitus

- Risk of future T2DM is 60-70%
- Postpartum, screen women with GDM for diabetes regularly (at 1y then q1-3y)

Hypothyroidism in pregnancy

Risks:

- Fetal/infant: pregnancy loss, stillbirth, preterm birth, impaired neurodevelopment
- Maternal: higher risk of preeclampsia, placental abruption

Preconception/At pregnancy: Screen women with T1DM, fhx, or hypothyroid sxs

Treatment:

- During pregnancy, Thyroid hormone requirement increases; Postpartum, returns to pre-pregnancy requirement
- At delivery: reduce to pre-pregnancy dose. Check TSH at 6 weeks postpartum

Goal TSH <2.5, at conception and throughout pregnancy

*TSH value may be suppressed in 1st tri due to HCG rise.

Menstrual Irregularities

Amenorrhea

Primary Amenorrhea:

- Absence of menses by age 16

Secondary Amenorrhea:

- Absence of menses for 3 months in a person who previously menstruated
- Causes: Hypothalamic = 36%, pituitary 15%, PCOS 30%, outflow tract 7%

Evaluation:

- 4 key labs: Beta HCG, FSH & estradiol (ovarian insufficiency), TSH, PRL
- Provera challenge – if no bleed, low estrogen state (or outflow tract issue)
- Brain MRI: if primary amenorrhea, headache, elevated PRL
- DEXA: in pts with >6 months of amenorrhea

Hypothalamic Amenorrhea

Etiology

- Energy output>energy input
- Excess weight loss
- Excess exercise
- Stress - psychological or physical
- Disordered eating

Treatment

- Weight gain, reduce exercise, increase caloric intake
- Multidisciplinary: psychological support/CBT for stress, disordered eating
- OCPs
- Calcium and D

Primary Ovarian Insufficiency

Elevated FSH in women age < 40

Etiology

- Turner's syndrome & fragile X pre-mutations
- Autoimmune
- Iatrogenic: Chemo or XRT

Diagnosis

- Karyotype
- Fragile X pre-mutation screen
- Antithyroid & anti-adrenal antibodies

Treatment

- OCPs or HT
- Calcium and D

Polycystic Ovarian Syndrome (PCOS)

Epidemiology:
- 4.7%-6.8% of women
- Most common cause of female infertility

Rotterdam Criteria (2 of the following):
- Oligo/anovulation
- Hyperandrogenism
- Polycystic ovaries on ultrasound

Exclusion of other diseases:
Hyperprolactinemia, CAH, androgen-secreting tumors

Treatment
- Weight loss
- OCP
- Spironolactone/hair removal
- Metformin
- Assisted Reproduction including ovulation induction and IVF

Polycystic Ovarian Syndrome (PCOS) and Social Media

PCOS content gets high social media engagement:

- Of top PCOS TikTok posts, average 1.8 million views
- Financial COI in 45% of TikTok posts, 89% of Instagram posts

BBC tracked the most-watched TikTok, Instagram videos with #PCOS in 9/2024

- Half spread false information

Main misleading claims by influencers:

- PCOS can be cured with dietary supplements
- PCOS can be cured with a diet, such as the keto diet
- Birth control pills cause PCOS or worsen symptoms
- Mainstream meds may suppress PCOS sx, but don't address "root cause"

Wakefield J. Influencers selling fake cures for polycystic ovary syndrome. BBC. 6 Dec 2024. https://www.bbc.com/news/articles/ckgz2p0999yo. Accessed Jul 6 2025.
Naroji S, John J, Gomez-Lobo V. Understanding PCOS-Related Content across Social Media Platforms-A Cross-Sectional Analysis. J Ped Adol Gyn. 2024 Apr;37(2):142-148.

Contraception: an update

Preventing unintended pregnancies

Ensuring that our patients can access patient-centered contraceptive care that helps them meet their reproductive goals is even more essential at this time in the United States

Dimensions of contraceptive choice

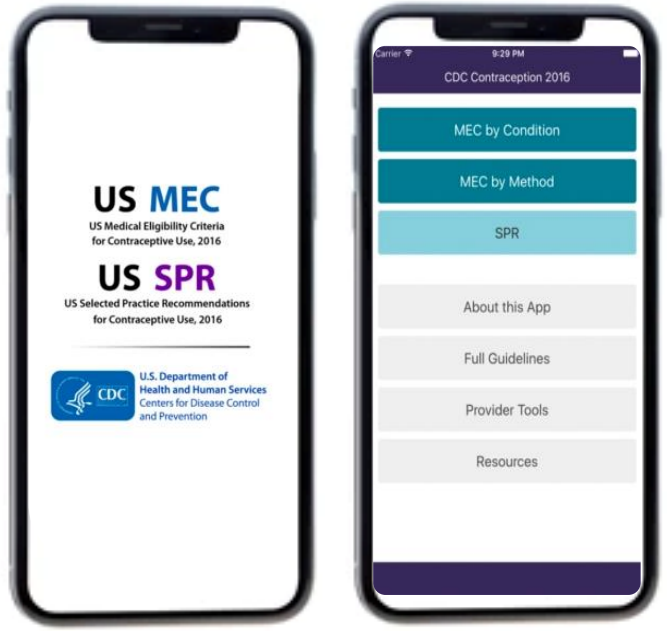
- Effectiveness
- Degree of user control
- Prescription
- Time to effectiveness
- Hormonal/non-hormonal
- Non-contraceptive benefits
- Partner involvement
- Ease and frequency of use

PICCK, 2022

Bayer, L. L., Ahuja, S., Allen, R. H., Gold, M. A., Levine, J. P., Ngo, L. L., & Mody, S. (2025). Best practices for reducing pain associated with intrauterine device placement. *American Journal of Obstetrics and Gynecology*, *232*(5), 409–421. https://doi.org/10.1016/j.ajog.2025.01.039

Contraceptive eligibility

U.S. Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Recommendations and Reports / Vol. 73 / No. 4
August 8, 2024



U.S. Medical Eligibility Criteria for Contraceptive Use, 2024

NOTE: in 2/2025, this content and the application were temporarily removed but available again as of 2/24/2025. The WHO offers an alternative app.

Nguyen, 2024

From Braaten, Contraception – An Update, 2025

Over-the-counter oral contraception

OTC progestin-only pill: Opill = Norgestrel 0.075mg

- FDA approved 7/2023
- Available in stores and online 3/2024

- People are able to screen themselves appropriately for use
- Effective - Better than historical efficacy for POP
- Data mixed re: importance of daily timing
- Well-tolerated

Osteoporosis

Screening for osteoporosis

Bone Density - DEXA

- Women 65 +, and post-menopause 50-65 with risk factors
- Men 70 +, and 50-69 with risk factors*
- After fragility fracture age 50+
- Risk factors: Glucocorticoid (≧ 3 mo), Low weight (<127 lbs or BMI <20), Fhx osteoporotic fracture, Early menopause, Current smoking, Alcohol

FRAX Calculator - Risk Assessment Tool: Fraxplus.org/

- Assess the 10-year risk of major osteoporotic fracture and hip fracture
- If >7.5mg/d prednisone, multiply by 1.15 for major OP fracture, 1.2 for hip fracture

Secondary work-up Prior to osteoporosis treatment

Who to treat

- Patients with vertebral or hip fractures
- DEXA T score ≦ 2.5 (osteoporosis) at LS spine, FN, or total hip
- DEXA T score between -1 and -2.5 (osteopenia) **and** FRAX 10 yr prob of major OP fx ≧20%, or hip fx ≧ 3%, or proximal humerus, pelvis, wrist fx

Treatment

Non-pharmacologic

- Stop smoking; reduce ETOH
- Weight-bearing & muscle-strengthening exercises
- Vitamin D3 800-1200 IU : goal >30ng/ml
- Calcium in diet 800-1200 mg, supplement if diet not enough

Pharmacologic

Antiresorptives

- Bisphosphonates Oral - reduce vertebral, hip, non-vert fx; IV: reduce hip, vertebral fx
- Raloxifene - reduces vertebral fx only
- Denosumab - reduces vertebral, hip, non-vertebral fx. D/c -> rebound bone loss.

Anabolics

- Consider in very low bone density or hx vertebral fx. Use PRIOR to antiresorptive rx.
- Endocrine consult

Bisphosphonates

Types & Duration

- Oral: alendronate, risedronate - 5 years +
- IV: zoledronate - 3 years
- If effective, and low to moderate risk patient, consider drug holiday

Side Effects & Contraindications

- Contraindication in GFR<35, or Hypocalcemia
- Oral - GI irritation
- IV infusion – flu-like reaction
- Osteonecrosis of the Jaw - very rare ->dental check-up first. Delay start of med if implant or extraction planned, but no consensus to discontinue prior to procedure.
- Atypical Femoral Fracture - very rare

Prevention – Hormone Therapy

- Reduces fractures in postmenopausal persons
- FDA Approved for prevention of osteoporosis in women at high risk of osteoporosis, for whom non-estrogen medications are not appropriate

- Especially consider in perimenopausal/early menopausal women with osteopenia and/or at high risk of osteoporosis, and in women with bothersome VMS

- USPSTF acknowledges that hormone therapy is associated with decreased fracture risk; however, given overall benefits and harms, concludes no net benefit

Mangione CM, et al (2022). Hormone Therapy for the Primary Prevention of Chronic Conditions in Postmenopausal Persons: US Preventive Services Task Force Recommendation Statement. *JAMA : The Journal of the American Medical Association*, *328*(17), 1740–1746. https://doi.org/10.1001/jama.2022.18625

Management of osteoporosis in postmenopausal women: the 2021 position statement of The North American Menopause Society. Menopause. 2021 Sep 1;28(9):973-997. doi: 10.1097/GME.0000000000001831. PMID: 34448749.

Medication Abortion

Medication Abortion Is Common in the US

- 1 in 5 pregnancies result in abortion
- 1 in 4 women will have an abortion by age 45

- Medication abortion was 63% of all abortions in 2023
- Shifting landscape of abortion in setting of political changes

Medication abortion is safe

- Serious adverse event = .3 - .5%
- Mortality rate = 0.000007 (0.7 per 100,000)

- Evidence supports safety of screening with history alone (without pelvic exam or ultrasound)

Upadhyay UD, Raymond EG, Koenig LR, et al. Outcomes and Safety of History-Based Screening for Medication Abortion: A Retrospective Multicenter Cohort Study. *JAMA Intern Med.* 2022;182(5):482–491. doi:10.1001/jamainternmed.2022.021

Medication abortion care

Pre-abortion care:

- Options counseling

Medication abortion

- Up to 10 wks gestational age
- Rare contraindications
- Mifepristone and misoprostol over 24-48 hours

Post-abortion care:

- Confirm completion
- Assess for rare complications
- Contraception if desired

Cervical cancer screening

Cervical Cancer Screening – USPSTF 2018*

Routine

- 21-29: cytology q3 years, **no** HPV routine screening (only reflex for ASCUS)
- 30-65: co-testing q5 yrs or cytology only q3 years; or primary HPV testing alone q5 years starting at 25
- 65+: stop if adequate prior screening: (3 consecutive negative cytology or 2 negative co-testing within prior 10 years, most recent within 5 years)

High Risk Patients (screen more frequently/longer)

- Hx of CIN2/3 or cervical cancer
- In utero exposure to DES
- Immunocompromised

Do not screen

- Hyst with cervix removed for benign disease, no hx CIN2/3

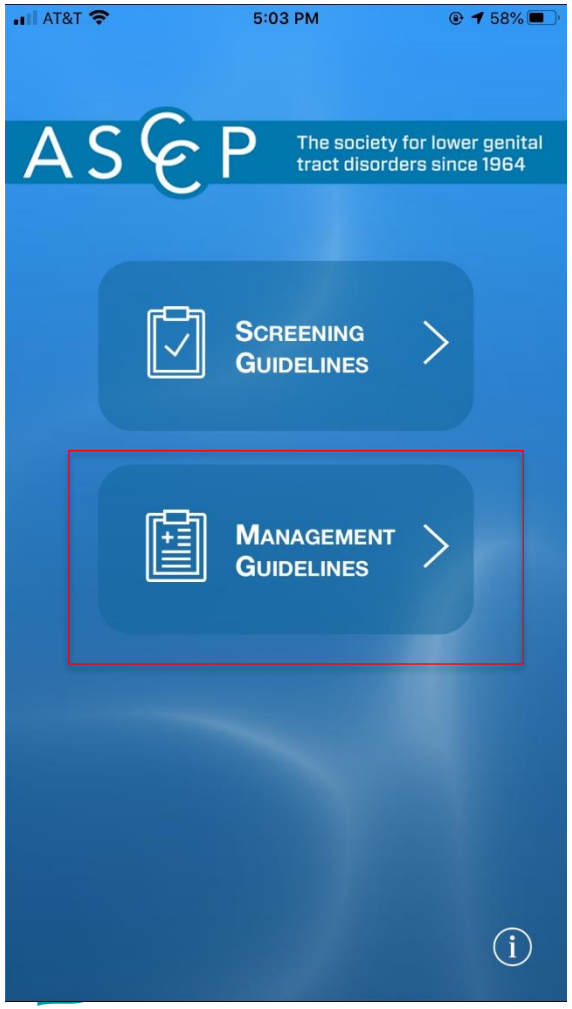
2019 Risk-Based Management Guidelines (American Society of Colposcopy and Cervical Pathology)

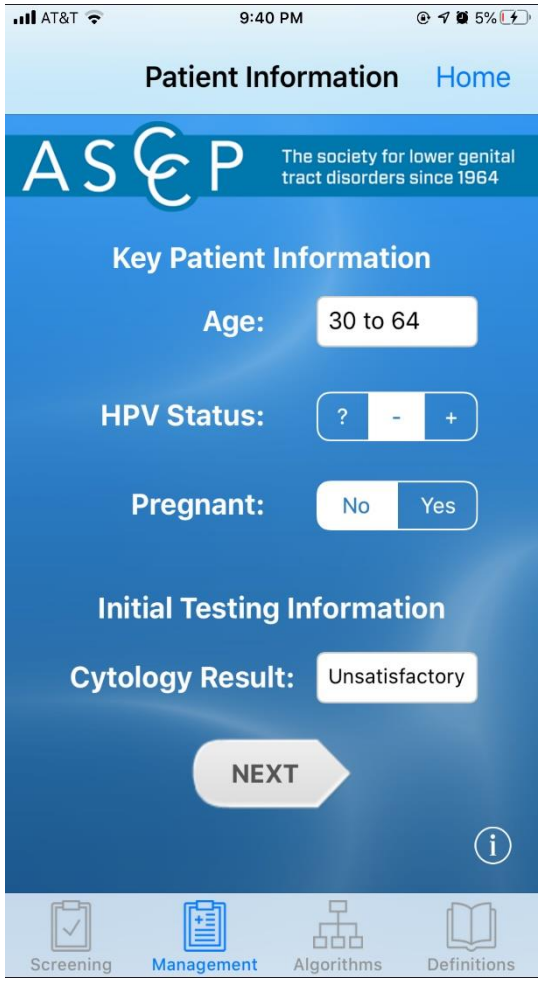
- Goal: Reduce unnecessary procedures in low-risk patients and create enduring guidelines that will remain relevant as risk factors (eg HPV prevalence) change

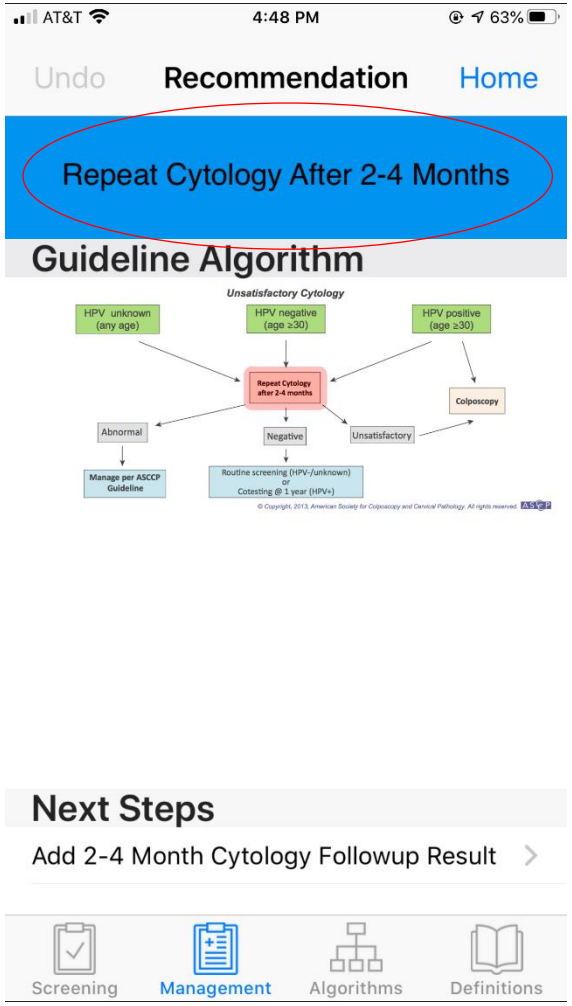
- Key principle = Tailor surveillance based on risk of developing CIN 3, not just current pap/HPV results
    - Risk based on current AND prior HPV and pap results
    - Less colpo for low-risk patients, more surveillance for high-risk patients
    - Prior HPV has a big impact on risk

- Key practice point – suggest ASCCP tables available free online, or ASCCP app

Using ASCCP app for Management Guidelines







Self-screening: in-office & in-home HPV testing

Many barriers to office-based screening via pelvic exam:

- may provoke discomfort, shame, or culturally unacceptable
- especially distressing if hx trauma, or for nonbinary/transgender people
- logistical barriers incl. conflicting responsibilities, cost, lack of access

Primary HPV screening (can be done as vaginal swab)

- ACS 2020 guidelines – first line for 25-65yo
- USPSTF 2018 guidelines – acceptable option for 30+

Self-collected HPV: similar sensitivity/specificity as clinician-collected samples

- USPSTF 2024 review found self-testing increased screening rates c/w usual care
- US FDA 2024 approved 2 HPV tests for self-collection in healthcare setting
- US FDA 2025 approved home HPV self-collection kit

Rittenberg E et al. HPV Self-Collection for Cervical Cancer Screening—There's No Place Like Home. *JAMA IM*. June 6, 2025. https://doi.org/10.1001/jamainternmed.2025.297
Arbyn M et al. Meta-analysis of agreement/concordance statistics in studies comparing self- vs clinician-collected samples for HPV testing in cervical cancer screening. *Int J Cancer*. 2022;151(2):308-312. doi:10. 1002/ijc.33967

Trauma-Informed Approach to Intimate Partner Violence

Intimate Partner Violence

IPV very common:

- Contact Sexual Violence, Physical Violence, and/or Stalking by Intimate Partner: almost half of women in the US
- Long-term health effects: Chronic pain, Vaginal infections, STIs, Depression, Anxiety, PTSD, GI symptoms, Unwanted pregnancy, Poor self-reported health, Increased healthcare utilization

USPSTF recommends screening reproductive-age women, esp pregnant

Inquiry about trauma and IPV can be an intervention

- De-stigmatize, Create safe place for disclosure, Offer resources

Rittenberg E, Covinsky KE, Grady D. Updated USPSTF Guidelines on Screening for Intimate Partner Violence and Caregiver Abuse. JAMA Intern Med. 2025 Jun 24. doi: 10.1001/jamainternmed.2025.3095. Epub ahead of print. PMID: 40553464.

Trauma-informed care

Trauma-Informed Care is an approach to improve patient engagement, mitigate trauma impacts, and work towards health equity

Universal approach assumes all potentially have trauma
Therefore, draw on TIC principles for all healthcare:

- Safety, physical and psychological
- Trustworthiness and transparency
- Peer support
- Collaboration and mutuality
- Empowerment, voice and choice
- Cultural, historical, and gender acknowledgment

Disclosure is not the goal

Response to Disclosure: the Four C's

Calm	Contain	Care	Cope
Pay attention to how you are feeling Breathe deeply and calm yourself to model & promote calmness for patient, yourself, and co-workers	Allow patient to maintain safety Don't emotionally overwhelm	Self-compassion Cultural humility Destigmatize adverse coping behaviors	Emphasize: Coping skills Positive relationships Interventions that build resilience

Kimberg L and Wheeler M. Trauma and Trauma Informed Care, in Gerber (ed) Trauma-Informed Healthcare Approaches. Springer 2019.

Mandatory reporting

Informed consent: Review limits of confidentiality with your patient

IPV reporting laws differ by state:
www.futureswithoutviolence.org has complete list

Typical areas of concern:

- Abuse of disabled person, elder, or child
- Injuries from weapon (knife/gun)

Recognize that filing, though necessary, may escalate the situation. Include this in your safety planning process.

Ask for support! Know your local resources & experts

Thank you!

- Acknowledgement: Lydia Pace, MD