Operational Obstetrics & Gynecology
The Health Care of Women in Military Settings

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Operational Medicine is not Identical to Civilian Medicine
Women’s Healthcare

• Mostly the same as Men’s Healthcare, but some differences

• Women use healthcare services twice as often
  – After excluding reproductive issues
  – Military and Civilian Populations
Women’s Healthcare

- More stress fractures
- More days of illness and disability
- Poorer vision
- Poorer dental status
- Better hearing
- Less chronic illness leading to death
- Lower death rates
Field Expedient GYN Exam Table

- Litter
- Litter Stands
- IV Poles
- Small Battle Dressings
Field Expedient Vaginal Speculum
Field Expedient Vaginal Speculum
Pregnancy

- Women comprise 20% of US Armed Forces
  - ~ 10% are pregnant at any time.
  - ~ 5% are known to be pregnant
Pregnancy

- Pregnancy test for any pelvic pain or abnormal bleeding
- Use caution when prescribing medications
- Pregnancy Categories A, B, C, D, X
Pregnancy Tests

- Urine/Serum interchangeable
- Positive at 30-35 mIU of HCG
- Very reliable
- Always get a pregnancy test with:
  - Pelvic pain
  - Abnormal bleeding
Ectopic Pregnancy Management

- Transvaginal ultrasound
- Quantitative $\beta$ HCG
- Serial hgb
- Laparoscopy
- Methotrexate
- Blood bank
Ectopic Pregnancy Management
Operational Setting

- Laparotomy (sometimes)

Non-surgical management
- IV fluids
- Mast suit
- Donor-to-victim blood transfusion
Direct Transfusion

Donor-Victim Transfusion

- O- or O+ Donor
- 4 Feet gravity
Direct Transfusion

Donor-Victim Transfusion

- Cut the Tubing
- 10 Minutes
- Rhogam?
Direct Transfusion

Fresh Whole Blood vs PRBCs:
- Better O2 carrying-capacity
- Serum with antibodies
- Platelets
- Clotting Factors
- Pre-warmed
- 2-3 x better for hemorrhage
Field Expedient Vaginitis Rx/Dx

Mucopurulent Chlamydia

Bubbly, frothy, trichomonas

Dry, curdy, yeast
Field Expedient Vaginitis Rx/Dx

- Itching = Yeast
- Odor = BV

- Broad Spectrum
  - Diflucan 150 once
  - Zithromax 1 gm once
  - Flagyl 2 gm once
Unknown Lesions of the Vulva

- Each of these requires some unavailable test to confirm the diagnosis.
- What is the test for each of them?
Crabs

- Intense itching
- Movement, nits (eggs)
- Bright light, magnification
- Kwell shampoo, RID
Birth Control Pill Problems

Inadequate ovarian suppression

- Breakthrough bleeding
- 2 periods a month
- Spotting
- Dysmenorrhea
- Cyclic Mastodynia

- PMS
- Bloating
- Nausea
- Headaches
Birth Control Pill Physiology

Progestin
- Stops the ovary from producing hormones and ovulating

Estrogen
- Adds back enough E2 to prevent hot flashes & vaginal dryness
Birth Control Pill Physiology

Insufficient Estrogen
- Very light menses
- Amenorrhea
- Vaginal dryness
- Hot flashes
Birth Control Pill Physiology

Some Progestins have a Long Half-life

- Levonorgestrel (36 hours)
- Forgiving

Some Progestins = Short Half-life

- Dienogest (6-12 hours)
- Unforgiving
- Persistent ovarian function
Birth Control Pill Physiology

Persistent Ovarian Function

- Ovarian Hormones
- Progestin
- Add-back Estrogen
- Heavier Longer Menses
Inadequate ovarian suppression

- Breakthrough bleeding
- Spotting
- Dysmenorrhea
- Cyclic Mastodynia
- PMS

- Bloating
- Nausea
- Headaches

Progestin

Add-back Estrogen

Heavier Longer Menses

Ovarian Hormones
Birth Control Pill Problems

Inadequate ovarian suppression

• Switch to Levonorgestrel pill
• Go to continuous pills
• Explain need for consistency
Emergency Contraception

Within 3 days, but the sooner the better:

• Plan B (Levonorgestrel 150 mcg, once), or

• Four levonorgestrel-containing OCPs now and four more in 12 hours (LoOvral, Portia, Levora, etc.)
Emergency Contraception

- Reduces risk of pregnancy from 8% to ~ 1%
- Won’t disturb a pre-existing pregnancy
- Blocks conception...does not cause an abortion
- Nausea
Urinary Tract Infections

- Treat UTI’s based on symptoms.
- Cultures/dipsticks in some settings may be unreliable.
- One finger exam
Bartholin Duct Cyst and Abscess

• Drain it or leave it alone?
Draining a Bartholin Cyst