Preconception counseling & evaluation
What is Pre-conception counseling?

- Identify biological, behavioral, social risks
- Inform about fertility & pregnancy issues
- Optimization of pre-pregnancy health
- Provide support & resources
Why it’s important

- Improves pregnancy outcomes
- Some measure of control over fertility & pregnancy
Case

- HPI: 26 y.o. G2P1 presents in Triage @ 36 weeks by 8 week CRL. EDD is 3/3/2011. She presented with chest tightness & wheezing and was found to be having an acute asthma exacerbation. PE was ruled out. She was also complaining of Mild contractions in the lower abdomen. + fetal movement, denies vaginal bleeding, or leakage of fluid.

Case

PNI:

- Asthma - uncontrolled prior to pregnancy. Pt. was non-compliant with medications. Hospitalized yearly since childhood. No hx intubations. Takes Floven bid & Albuterol PRN

PNI Cont.

• Anemia - dx prior to pregnancy. h/h 10/29. Not on Iron.


• 1st TM screen: ↑ risk downs syndrome (1/78). Declined invasive testing.

• hx of PE in prior pregnancy in 2007. On Lovenox BID this pregnancy.
Case

- PNL: A+/ Ab neg./ Ucx neg./ GBS neg./ RPRNR / HIV neg./ pap neg./ RI/ HBsAg neg/ HgbA 97.3% / GC&chl neg.

- PNS: within normal limits.

- OBhx: G2P1001

- 2007 - NSVD @ weiler - 7lbs 6 oz. - ○ - hx of PE during pregnancy - no delivery complications.

• PMH: Asthma, DM 1

• PSH: none

• Meds: Albuterol 2 puffs q4 PRN, Lantus 35 u qam, Novolog 12 u qac. Flovent BID. Folic Acid, PNV

• Allergies: NKDA

• SH: lives with daughter. FOB involved, but hx of verbal abuse. Denies physical abuse, depression. Works as a nursing student. Has a pet fish.

• FH: All siblings with Asthma. No hx of congenital anomalies. Partner with HSV
Components of the Preconception Evaluation

Medical History

- Metabolic or Auto-Immune diseases
- Medications & OTC supplements
- Dietary evaluation
- Reproductive history
- Family & genetic history
- Social History
- psycho-social history
- Environmental exposures

Our patient

DM type 1 - on Insulin
Asthma - on Beta ago. & IH steroid
Anemia - no meds
hx of PE in prior pregnancy
hx of Chlamydia & abn pap

Increased risk for Tri 21 on 1st TM screen
hx of verbal abuse from FOB

Nursing Student

Saturday, April 16, 2011
Components of the Preconception Evaluation

Thorough History and physical!

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Nursing Student
Components of the Preconception Evaluation

Physical exam
• Vital signs
• thyroid gland
• CV
• **Dental caries**
• Cervical cancer screening
• Gonorrhea & Chlamydia screening

Labs
• Rubella & Varicella titers
• Hepatitis B surface antigen
• CBC
• HIV testing and counseling
• +/- Hba1c, Hep. C Ab, Toxo IgG, CMV IgG,
  Genetic carrier testing, serum phenylalanine

*Our patient*

pre-pregnancy BMI > 30
Partner with HSV
hx of abnormal pap

hx of prior STI
Anemia

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Saturday, April 16, 2011
6 steps to prepare for a healthy pregnancy (brought to us by the CDC)

1. Take 400mcg Folic acid daily at least 1 mo. prior to conception
### Table 1. Key Nutrients for You and Your Baby During Pregnancy

<table>
<thead>
<tr>
<th>Nutrient (Dietary Reference Intake [DRI])</th>
<th>Why You and Your Baby Need It</th>
<th>Best Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium (1,000 milligrams)</td>
<td>Helps build strong bones and teeth.</td>
<td>Milk, cheese, yogurt, sardines</td>
</tr>
<tr>
<td>Iron (27 milligrams)</td>
<td>Helps red blood cells deliver oxygen to your baby.</td>
<td>Lean red meat, dried beans and peas, iron-fortified cereals, prune juice</td>
</tr>
<tr>
<td>Vitamin A (770 micrograms)</td>
<td>Forms healthy skin and helps eyesight. Helps with bone growth.</td>
<td>Carrots; dark, leafy greens; sweet potatoes</td>
</tr>
<tr>
<td>Vitamin C (85 milligrams)</td>
<td>Promotes healthy gums, teeth, and bones. Helps your body absorb iron.</td>
<td>Citrus fruit, broccoli, tomatoes, strawberries</td>
</tr>
<tr>
<td>Vitamin D (200 international units; some experts recommend 400 international units during pregnancy)</td>
<td>Helps build your baby’s bones and teeth.</td>
<td>Sunlight exposure; vitamin D fortified milk; fatty fish such as salmon</td>
</tr>
<tr>
<td>Vitamin B₆ (1.9 milligrams)</td>
<td>Helps form red blood cells. Helps body use protein, fat, and carbohydrates.</td>
<td>Beef, liver, pork, ham; whole-grain cereals; bananas</td>
</tr>
<tr>
<td>Vitamin B₁₂ (2.6 micrograms)</td>
<td>Maintains nervous system. Needed to form red blood cells.</td>
<td>Liver, meat, fish, poultry, milk (found only in animal foods—vegetarians who do not eat any animal foods should take a supplement)</td>
</tr>
<tr>
<td>Folate (600 micrograms)</td>
<td>Needed to produce blood and protein. Helps some enzymes function.</td>
<td>Green, leafy vegetables; liver; orange juice; legumes and nuts</td>
</tr>
</tbody>
</table>
Other Nutritional Considerations

- Nutritionist may be consulted if diet restrictions, unbalanced diet
- Avoid Megavitamins with >5000 Vitamin A
- Avoid raw meat, eggs, fish, smoked seafood, uncooked hot dogs
- Avoid fish high in Mercury (shark, swordfish, king mackerel)
- Avoid deli meats, imported Soft cheeses, Pates, & unpasteurized milk
- Thoroughly rinse unwashed vegetables
- Refrain from Caffeine or limit Caffeine intake to 300mg per day
2. No Drinking or Drugs
   No alcohol if planning pregnancy, or not using effective birth control

There is no safe amount of EtOH in pregnancy.
3. Stop Smoking

- 2x more likely to have delay in conception
- 2x more likely to have pregnancy complications - PROM, abruption, previa
- 30% higher odds of premature birth
- Increased risk of low birthweight
- 3.0x likely for SIDS
- Second hand smoke exposure is just as harmful

1-800-QUIT-NOW
4. Make sure all medical conditions are well controlled or addressed at preconception visit

- Hypertension
- Bleeding & Clotting Disorders
- Diabetes
- Asthma
- Lupus
- Depression
- Anemia
- Sexually transmitted infections

5. Review Medication list for potential teratogenic substance with doctor
6 steps to prepare for a healthy pregnancy (brought to us by the CDC)

6. Make sure all Vaccinations are up to date

**Routine Vaccinations**

- Live Vaccines should not be given within 1 mo. before conception: MMR, Varicella
- Flu Vaccine recommended during pregnancy
- Vaccination w/ Tdap after deliver reduced risk of pertussis and risk to infant.

- Hepatitis B - safe in pregnancy
- Hepatitis A - safety not determined. But consider women at high risk for vaccination
Other considerations

- Exercise - women who exercise regularly prior to pregnancy can continue usual level of exercise during pregnancy. Avoid initiation of strenuous exercise

- Insurance coverage

- Timing the initial pregnancy and pregnancy intervals

- Work related issues

- Marital issues
Challenges and Barriers Preconception care

- Unmodifiable Risk factors: stress, maternal age, genetic history
- May not be fully reimbursed
- Inadequate training on the part of health care providers
- unplanned pregnancy
Summary and Recommendations

• Offer preconception counseling to ALL women of childbearing age

• Goals of counseling are to identify risks to mom and fetus during pregnancy, educate patients about the risks, and institute appropriate interventions

• perform a thorough history and physical exam

• Review medications & OTC to determine if safe in pregnancy

• Encourage women to stop smoking, drinking, and drugs
References


