Project TEACH
Addressing Tobacco Treatment for Pregnant Women

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Prevalence of Smoking and Cessation During Pregnancy

- In 2014, 14% in women with Medicaid coverage versus 3.6% of women with private insurance
- Quit rates of pregnant women
  - 18.4% with Medicaid versus 28.4% with private insurance
Smoking in Pregnancy and Behavioral Health Disorders

- Among pregnant women who smoke, 45.1% meet criteria for one or more behavioral health disorders.
- Among pregnant women with nicotine dependence disorder, 57.5% meet criteria for one or more behavioral health disorders.
Risks of Smoking During Pregnancy

• Increases risk for
  – Spontaneous abortion
  – Placental complications
  – Pre-term delivery – responsible for 10%
  – Low birth weight – responsible for 30%
  – Fetal and neonatal death
  – Sudden infant death syndrome
Impact of Smoking Cessation Treatment on Birth Outcomes

- Women who receive psychosocial smoking cessation interventions during pregnancy have significant reductions in risk
  - 18% reduction in pre-term birth
  - 18% reduction in low birth weight
  - Increase in mean birth weight of 41 g
Risks of Smoking in Postpartum Period

• Increases risk for infant and child
  – Hospitalization
  – Respiratory tract and other types of infections in first 12 months of life
  – Ear problems
  – Slower lung growth and lung function problems in infant
  – School absence
Risks of Depression During Pregnancy

• High levels of depressive symptoms in mother independently increases risk for
  – Preterm birth
  – Low birth weight

• This risk is comparable to smoking 10 or more cigarettes per day
Clinical Practice Guidelines

• Because of serious risks of smoking during pregnancy
  – Offer person-to-person psychosocial intervention that exceeds minimal advice to quit
    • Problem solving and motivational enhancement

• Abstinence in early pregnancy provides greatest benefits, but quitting at any point is beneficial
  – Offer effective intervention throughout course of pregnancy
Clinical Practice Guidelines
(continued)

• Provide pregnancy-specific smoking cessation materials
  – http://women.smokefree.gov/quit-smoking.aspx has materials to help women quit
  – http://women.smokefree.gov/forever-free-booklet-babies.aspx has booklets to help women who have quit smoking in pregnancy remain smoke-free
Clinical Practice Guidelines – Tobacco Use Medication

• In 2008, limited data so the Panel did not make a recommendation
Recent Studies on Pharmacological Interventions

• Recent meta-analysis of pharmacological interventions in pregnancy found
  – NRT with behavioral support may increase smoking abstinence in late pregnancy by 40%  
  – NRT had neither positive or negative impact on birth outcomes 
    • One study found that women assigned to NRT had improved infant developmental outcomes 
  – There was a low level of adherence to NRT regimens in women who participated in these studies
Recent Studies on Pharmacological Interventions
(continued)

- Bupropion is listed as a Category C drug in pregnancy (risk cannot be ruled out)
  - One observational study found higher quit rates in bupropion (45%) than controls (14%)
- Varenicline is listed as a Category C drug in pregnancy
  - No studies have been conducted
Tailored Treatment for Pregnant Smokers with Behavioral Health Disorders?

• No studies conducted with exception of Cinciripini et al., 2010
  – Compared depression-focused versus health and wellness control
    • 10 sessions, 60 minutes each
    • Smoking cessation component included motivational and behavioral interventions
  – Demographics
    • 54% African-American
    • ~ half were unemployed
    • 25 years of age
    • 76% had lifetime history of MDD
      – 67% recurrent episode
Tailored Treatment for Pregnant Smokers with Behavioral Health Disorders?

(continued)

• Study Outcomes
  – Women with highest levels of baseline depression symptoms had higher abstinence and lower depression in depression-focused treatment
  • Women with low levels of depression had worse abstinence outcomes
Relationship of Childhood Trauma to Nicotine Dependence

- High rates of moderate to severe childhood trauma in the sample
  - 76% had at least one type of trauma
    - 32% emotional abuse
    - 21% physical abuse
    - 33% sexual abuse
    - 34% emotional neglect
    - 25% physical neglect
- Childhood trauma related to higher levels of nicotine dependence
  - Multiple types of trauma increased nicotine dependence severity
Relationship of Childhood Trauma to Abstinence

- Increasing amounts of trauma associated with reduced likelihood of abstinence at 6 months post treatment
Relationship of Childhood Trauma to Depression Outcome

• Women with increasing amounts of childhood trauma benefitted more from depression-focused treatment for depression, while those in the health and wellness condition did not
References