Updates on Zika Virus, Influenza, STDs, and More

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Kern County Perinatal Symposium
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Zika Update

- No local mosquito-borne transmission in the state of California
- 1 travel-associated case in Kern County in 2017
- Aedes mosquitoes have been detected in Kern County
- Continued risk of infection abroad
Zika Testing

- Reason for suspicion ("baseline" testing is inaccurate)
- History of yellow fever or Japanese equine encephalitis vaccine and other arbovirus infections can affect test interpretation
- Commercial testing widely available, no health department approval required
- Health Department does NOT test for Zika virus

<table>
<thead>
<tr>
<th>Time from Symptom Onset or Last Potential Exposure</th>
<th>2 - 12 Weeks</th>
<th>12+ Weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Testing (RT-PCR) Serum and Urine</td>
<td></td>
<td>Testing NOT recommended</td>
</tr>
<tr>
<td>Serologic testing (IgM and PRNT) Serum</td>
<td></td>
<td></td>
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</tbody>
</table>
Zika Precautions

• REGARDLESS of test results, persons potentially exposed to Zika virus should protect sexual partners through abstinence or a barrier method

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
<th>Partner of Pregnant Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 weeks</td>
<td>6 months</td>
<td>Duration of Pregnancy</td>
</tr>
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</table>

• Avoid conception at minimum for the same time period

• Asymptomatic and recovered persons can still infect their partner

• Virus can persist in semen and vaginal fluid even after it has cleared from blood
Zika and Pregnancy

- Negative serology NOT sufficient
- Delay conception if potentially exposed
- Take precautions to avoid pregnancy
- No evidence that previous infection with Zika virus will affect future pregnancies

- Benefits of breastfeeding outweigh theoretical risk of Zika virus transmission through breastmilk
- No evidence of adverse neurological outcomes from postnatal infection have been documented
### Influenza Update

- Flu activity appears to have peaked, but still elevated

<table>
<thead>
<tr>
<th></th>
<th>Severe (ICU) hospitalization</th>
<th>Influenza-related fatality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kern County</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>California</td>
<td>505</td>
<td>185</td>
</tr>
</tbody>
</table>

#### People at High Risk for Developing Flu-Related Complications

- **Children younger than 5, but especially children younger than 2 years old**
- **Adults 65 years of age and older**
- **Pregnant women** (and women up to two weeks postpartum)
- Residents of nursing homes and other long-term care facilities
- Also, [American Indians and Alaska Natives](https://example.com) seem to be at higher risk of flu complications
2017-2018 Influenza Season in Kern County

- 5/8 ICU cases are < 5 years of age
- 0/5 cases received vaccination this season
- Average hospital stay: 8.5 days

- 2 cases < 6 months of age
  - Neither mother was vaccinated during pregnancy, or in previous flu season

The single best way to protect your children from flu is to get them vaccinated each year.
-CDC

Half of pregnant women protect themselves and their babies against flu. Time to bump it up!

With only half of pregnant moms getting their flu shot, too many remain unprotected.
Flu shots help protect pregnant women and their babies from potentially serious flu illness during and after pregnancy.

During the 2008-2009 flu season, an estimated 50% of pregnant women in the U.S. protected themselves and their babies from flu by getting a flu shot. This is a significant improvement since the years before the 2009 pandemic, about half of pregnant women and their babies, still remain unprotected from influenza.

We can do better. All pregnant women need flu shots to protect themselves and their babies.

Protect yourself and your baby by getting your flu shot!

Pregnant? You Need a Flu Shot!

Information for pregnant women
STDs in Kern County

Types of STDs:
- Chlamydia
- Gonorrhea
- Herpes
- Hepatitis B
- HIV/AIDS
- HPV
- Syphilis

Prevention:
- Abstinence
- Vaccination
- Reduce partners
- Condoms
- Talk with your partner
- Get tested

Reducing your number of sex partners can decrease your risk for STDs. It is still important that you and your partner get tested, and that you share your test results with one another.

CDC

1 New STD is reported in Kern County EVERY HOUR

Kern County is a high STD rate county. It is important to protect yourself and others.

Syphilis: A Silent Killer
Protect your baby • Get tested

Kern County Public Health Services Department
321-3000

Kern County Public Health Services

I SURVIVED talking to my child about sex!

Let's make a difference in Kern's high STD rates

kernpublichealth.com
Kern County HIV/AIDS
Kern County HIV/AIDS Cases – Perinatal Exposure

Number of Cases

Kern County Chlamydia Cases

*2017 data is preliminary
Kern County Gonorrhea Cases

Rate per 100,000 Population

Number of Cases

Cases  Rate


*2017 data is preliminary
Kern County Primary and Secondary Syphilis Cases

- Number of Cases
- Rate per 100,000 Population

*2017 data is preliminary
Kern County Congenital Syphilis Cases

Number of Cases vs. Rate per 1,000 Live Births

- Cases: Green bars
- Rate: Red line

Years: 1995 to 2017
Kern Congenital Cases, 2012-2017

- 113 infants with congenital syphilis
- 10 fetal demises (27-37 weeks gestation)
- 2 perinatal deaths (22, 32 weeks gestation)
- Most mothers have late stage syphilis
- Many mothers had inconsistent, late, or NO prenatal care
- Some mothers ARE diagnosed 30+ days before delivery (missed opportunity)
Pertussis Update

• Pertussis is expected to spike this year

• Since 2010, 192 pertussis cases have been < 1 year of age (24%)

• Since 2011:
  • 31% of infant pertussis cases are 8 weeks or less
  • 49% of infant pertussis cases are hospitalized
  • 12% in ICU
  • 22% of infant pertussis cases had complications

• One death in an infant in 2016
Prenatal Tdap

• ACOG and CDC recommend Tdap during 3rd trimester of EACH pregnancy
  • Ideally 27-36 weeks gestation

• Maternal antibody transfer can help protect infants until old enough to receive vaccination

• Women who do not receive during pregnancy and have never received Tdap should be vaccinated postpartum

• Family/caregivers should receive at Tdap if never vaccinated
  • Ideally 2 weeks before close contact
Perinatal Hepatitis B

- Hepatitis B continues to be endemic in parts of the world
- Testing for Hepatitis B during pregnancy is required by law (Health and Safety Code Section 125085)
- Women and infants should NOT be discharged from hospital until Hepatitis B status is known
Screening and Referral Algorithm for Hepatitis B Virus (HBV) Infection among Pregnant Women

HBsAg

- Assess if at high risk* for acquiring HBV infection
  - No further action needed
  - No
- HBsAg (hepatitis B surface antigen)
  - Yes

**Order Additional Tests:**
- HBeAg (hepatitis B e-antigen)
- HBV DNA Concentration
- ALT (alanine aminotransferase)

**Refer for care postpartum**

*High risk for HBV infection includes: household or sexual contacts of HBsAg-positive parabiotic injection drug use; more than one sex partner during the past six months; evaluation or treatment for a sexually transmitted disease; HIV infection, chronic liver disease, or end-stage renal disease; and international travel to regions with HBsAg prevalence of >2%.

Hepatitis B Testing During Pregnancy

- Negative → Evaluate for high risk factors → Retest as necessary
- Positive → Report patient to the Perinatal Hepatitis B Prevention Program
  - Identify household and sexual contacts for screening by PMD
  - Order additional tests: HBeAg, HBV DNA, ALT
  - refer to specialist
## Perinatal Hepatitis B Prevention

<table>
<thead>
<tr>
<th></th>
<th>Hepatitis B Vaccine</th>
<th>Hepatitis B Immune Globulin (HBIG)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 2,000 g</td>
<td>&gt; 2,000 g</td>
</tr>
<tr>
<td>Unknown</td>
<td>&lt; 12 hours</td>
<td>&lt; 12 hours</td>
</tr>
<tr>
<td>HBsAg-</td>
<td>&gt; 1 month</td>
<td>Before discharge</td>
</tr>
<tr>
<td>HBsAg+</td>
<td>&lt; 12 hours</td>
<td></td>
</tr>
</tbody>
</table>

- For HBsAg+ mothers, documentation of HBIG and Hepatitis B vaccine administration should be faxed to the Health Department
Perinatal Hepatitis B Follow Up

- All infants should received Hepatitis B vaccine
- Infants born to HBsAg+ mothers should be tested for Hepatitis B at 3-9 months after completion of vaccination series
- Hepatitis B is NOT a contraindication to breastfeeding
Thank you!

- Kimberly Hernandez, MPH
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