Update on Current Health Alerts for Clinicians in Los Angeles County

August 16, 2017
Objectives

• Summarize clinical guidance from recent Los Angeles County Health Alerts

• Ensure clinicians providing services to the LGBTQ / HIV / drug-using and homeless populations receive key messages

• Provide an interactive forum for clinicians to ask questions/clarify issues regarding current health alerts
Agenda

• 8-10 minute summary on each topic
  – Hepatitis A
  – Mumps
  – Invasive Meningococcal Disease (IMD)
  – Multi-drug resistant *Shigella*

• Q&A
San Diego Hepatitis A Outbreak

• Between Nov. 24, 2016 and Aug. 8, 2017:
  – 312 cases; 215 (69%) hospitalizations; and 10 (3.2%) deaths
  – Most deaths associated with hepatitis C co-infection

• Of those with known status, 78% of cases in homeless and/or illicit drug users (injecting and non-injecting)

• Clusters have occurred among people who used the same service providers or resided in facilities with shared restrooms (SRO hotels, jails, residential drug treatment)

• Cases also have occurred among service providers to the homeless (shelter volunteers, sanitation workers, HCWs)
Modeling suggests that the outbreak will continue for about 18 more months.
Hepatitis A and the Homeless, LA County, July-Aug 2017

• Two LA County (LAC) cases with exposure in San Diego
  – Board and care facility
  – State hospital
    • Cluster includes 3 secondary cases

• Previous LAC experience
  – No cases among homeless in LAC in past 2 years
  – Outbreak among homeless in 2005-6; 48 cases

• Santa Cruz County outbreak: 52 cases since April 2017 in homeless and drug users
Hepatitis A Illness

• Acute infection; ~70% of older children & adults symptomatic

• Symptoms/signs
  – Fever, fatigue, anorexia, abdominal pain, nausea/vomiting
  – Later, dark urine, clay colored stools, jaundice

• Clinical course

Virus in feces
Virus in blood
Diagnosis & Reporting

• Suspect cases based on clinical presentation & epidemiology
• Obtain hepatitis panel
  – IgM test for hepatitis A
  – Hepatitis B (core Ab and surface Ag) & hepatitis C (Ab)
• Report to Public Health
  – Report confirmed and suspect cases
  – Don’t rely on laboratories to report!
    • CMR reports included additional data
Prevention

• **Post-exposure prophylaxis (PEP)** for contacts of cases
  – Provide PEP within 2 weeks of exposure
  – Vaccination recommended in all persons >1 year old
  – For persons at risk of severe infection add immune globulin
    • **Note:** increased dose for IM IG to 0.1 mL/kg

• **Pre-exposure**
  – Vaccinate persons who are homeless or use drugs
    • First dose highly immunogenic (98% for single Ag vaccine)
    • Free vaccine available from Public Health (see website for time/location of clinics); also covered by Medi-Cal and ADAP
  – Consider vaccination for HCWs and persons who have ongoing close contact with the homeless and drug users
    • Especially those who prepare and serve food
Prevention: Sanitation & Behavior Change

• Emphasize handwashing with soap and water
  – Depending on alcohol concentration & exposure times, hand sanitizer may be less effective

• Environmental cleaning
  – Disinfect bathrooms and surfaces with bleach (1:10 dilution), formulation of quaternary ammonium and HCl (toilet bowl cleaner), or 2% glutaraldehyde

• Reduce risky behaviors
  – Don’t share food, drink, eating utensils, smokes, towels, or toothbrushes with other peoples
  – Don’t have sex with someone who has hepatitis A
Educational Materials

FAQs

English/Spanish

http://publichealth.lacounty.gov/acd/Diseases/HepA.htm
Mumps Update

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MSM-related Mumps Reports

• From 01/10/17 - 08/11/17
• 52 mumps cases
  – 47 LAC mumps cases (40 MSM; 7 non-MSM)
  – 4 Orange County mumps cases (2 MSM, 2 non-MSM)
  – 1 Long Beach mumps case (1 non-MSM)
• 13 LAC False
• 3 Lost to follow up
Bubble Plot of Outbreak
A Few Facts

• Majority of cases among MSM population: HIV – and HIV +
• Some are women and heterosexual men with social connections to MSM cases.
• Most transmissions associated with large venues such as athletic clubs, bars, theaters and nightclubs.
• The majority of cases with no documentation of complete vaccination; however, some cases were fully vaccinated.
Diagnosis

• Diagnosis can be difficult. Many of our cases initially misdiagnosed, most commonly as salivary duct stones and lymphadenopathy
• Some misdiagnoses occurred because of reliance on false negative IgM results
• Waning immunity leads to atypical presentations that are harder to recognize
Clinical Presentation

- Pt. usually presents with acute orchitis, parotitis, or other salivary gland swelling
- Mumps typically begins with a few days of fever, headache, myalgia, fatigue, anorexia, maybe non-specific respiratory symptoms followed by development of salivary gland swelling, pain, and tenderness.
- Inquire about possible exposure to mumps
- Incubation period ranges from 12-25 days, but symptoms typically develop 16 to 18 days after exposure to mumps virus.
Laboratory Testing

- Buccal swab for PCR ideally within three days but no greater than nine days after symptom onset
- Blood for serology (IgM and IgG) four or more days after symptom onset.
- Remember: In vaccinated individuals the IgM may remain negative
Management

• No specific treatment
• Evaluate for need to have additional MMR vaccine
• Contact Department of Public Health before any test results back – ideally while patient in your presence to coordinate lab testing
• Advise suspect mumps patients:
  – should remain home and
  – away from public spaces such as school and work for five days after parotitis onset or, in its absence, until the resolution of constitutional symptoms.
Prevention

• Outreach to community and governmental organizations affiliated with target population
• Encourage overall immunization awareness for adults
• Educate – droplet precautions, adult presentation
• Don’t be stoic!!
Contact Information

• Los Angeles County DPH:
  – Weekdays: 888-397-3993
  – After 5 pm or on weekends: 213-974-1234.

• Long Beach Health and Human Services:
  – Weekdays: 8:00 am to 5:00 pm: 562-570-4302.
  – After hours: 562-435-6711, ask for the Communicable Disease Officer.

• Pasadena Health Department:
  – Weekdays: 8:00 am to 5:00 pm: 626-744-6089.
  – After hours: 626-744-6043.
Additional Information

• Technical or clinical assistance-contact LAC DPH Immunization Program’s Surveillance Unit:
  – Weekdays 8am-5pm call: 213-351-7800
  – After hours call: 213-974-1234

• Mumps for Community Members (LAC DPH):
  http://publichealth.lacounty.gov/ip/DiseaseSpecific/Mumps.htm

• Mumps for Healthcare Providers (CDC):
  https://www.cdc.gov/mumps/hcp.html

• Mumps Outbreak Updates (CDC):
  https://www.cdc.gov/mumps/outbreaks.html

• Mumps Factsheet (CDPH):
  https://www.cdph.ca.gov/HealthInfo/discond/Pages/Mumps.aspx
Invasive Meningococcal Disease (IMD) Update

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2016-17 SoCal Outbreak

- Largest known IMD outbreak among MSM in US
- 31 outbreak-associated cases
- Multiple local health jurisdictions
  - City of Long Beach
  - Los Angeles County
  - Orange County
  - Ventura County
# IMD Case Description (n=31)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Number (%)</th>
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<tbody>
<tr>
<td>Male</td>
<td>28 (90%)</td>
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<tr>
<td>MSM (% of males)</td>
<td>23 (82%)</td>
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<tr>
<td>Median age (range)</td>
<td>32 (17-76)</td>
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<tr>
<td>Hospitalized</td>
<td>30 (97%)</td>
</tr>
<tr>
<td>Known HIV infection</td>
<td>5/29 (17%)</td>
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<tr>
<td>Deaths</td>
<td>4 (13%)</td>
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Epidemic Curve

Number of cases

Weeks since start of the outbreak

LAC case
LB/OC/VC case
Out of state w/ LAC exp
# Symptoms and Hospital Stay of LAC cases (n= 14)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>2016-17 n (%)</th>
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<tbody>
<tr>
<td>Nausea or vomiting</td>
<td>10 (71)</td>
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<tr>
<td>Triad (fever, stiff neck, altered sensorium)</td>
<td>7 (50)</td>
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<tr>
<td>Length of hospital stay (days)</td>
<td>8 (6 – 95)</td>
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Clinical Presentation of Outbreak Cases

<table>
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<tr>
<th></th>
<th>Cases (n=27)</th>
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<tbody>
<tr>
<td>Meningococcemia</td>
<td>63%</td>
</tr>
<tr>
<td>Meningitis</td>
<td>37%</td>
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</table>
LAC Vaccine Recommendations

• All HIV-infected persons should receive:
  • 2 doses of the conjugate meningococcal (MenACWY) vaccine at least 8 weeks apart and a booster 5 years later* and every 5 years thereafter throughout life.

• All MSM who are not HIV-infected should receive:
  • single MenACWY vaccine dose (Menveo® or Menactra®) or a booster if the most recent dose was given ≥5 years ago.

*If the most recent dose was received before age 7 years, the first booster dose should be administered 3 years after the initial dose and then every 5 years thereafter throughout life.

Note: MenACWY vaccine is included on the AIDS Drug Assistance Program (ADAP) formulary.
Provider Guidance

• Implement evidence-based practices to ensure completion of the 2-dose vaccination schedule for all HIV-infected persons.
  • Examples include reminder-recall or co-scheduling
  • Track completion rates
• Ensure MSM clinic staff are completely vaccinated
• Refer MSM for free MenACWY vaccine if vaccination is not feasible at their primary care provider
Vaccination Information

Meningococcal Vaccine Dosing and Schedule - updated CDPH chart describing timing of doses for high-risk populations
http://eziz.org/assets/docs/IMM-1218.pdf

Free Meningococcal Vaccine for all uninsured/underinsured MSM in LAC. Find a location here:
Eculizumab CDC Health Advisory

- Eculizumab (Soliris®) commonly prescribed for treatment of
  - atypical hemolytic uremic syndrome (aHUS)
  - paroxysmal nocturnal hemoglobinuria (PNH)
- Patients receiving Eculizumab have 1,000-2,000 fold greater risk of IMD compared to general population
- ACIP recommends meningococcal vaccination for all patients receiving eculizumab
- Meningococcal conjugate (MenACWY) vaccine targets serogroups A, C, W, and Y, but provides no protection against nongroupable N. meningitidis
- Consider antimicrobial prophylaxis for duration of eculizumab therapy
Reporting

- Report **suspect cases** (positive Gram stain, don’t wait until culture is positive) **immediately** to ACDC by phone:
  (213) 240-7941 8am-5pm
  (213) 974-1234 after hours

- Forms to complete and fax after the call found here:
Multi-drug Resistant *Shigella* Update

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Shigella flexneri

- Fecal-oral transmission
- Highly infectious (≥ 10 organisms)
- Sheds days to weeks after illness
- HIV+ persons may have extended carriage & shedding
Southern California Outbreak, March—December 2016

- 40 cases of *Shigella flexneri* serotype 7
  - All male
  - 88% MSM
  - Age range 22–69 (median 36 years)
  - 81% (26/32) HIV positive
  - 38% (8/21) homeless or transiently housed
  - 83% (20/24) drug-using (IDU and/or non-IDU)
  - 1 death
*Shigella flexneri* serotype 7 cases by HIV status – Southern California, 2016
## Clinical Presentation

<table>
<thead>
<tr>
<th>Condition</th>
<th>N (%)</th>
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<tr>
<td>Diarrhea</td>
<td>40 (100)</td>
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<tr>
<td>Fever</td>
<td>36 (90)</td>
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<tr>
<td>Bloody diarrhea</td>
<td>21 (53)</td>
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<tr>
<td>Abdominal cramps</td>
<td>31 (78)</td>
</tr>
<tr>
<td>Hospitalized</td>
<td>14 (41)</td>
</tr>
<tr>
<td>Days hospitalized (median)</td>
<td>3.5 (1-19)</td>
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Antimicrobial Susceptibility Testing (AST)

- 19 clinical AST results
  - All resistant to ampicillin and trimethoprim/sulfamethoxazole
  - All susceptible to ciprofloxacin
  - No routine testing for azithromycin

- Additional CDC testing
  - 6/6 resistant to azithromycin
  - 5/6 resistant to amoxicillin/clavulanic acid
Fluoroquinolone Interpretive Criteria

- Current criteria for *Shigella*
  - Ciprofloxacin: S ≤1, I: 2, R: ≥4 (μg/mL)
  - Levofloxacin: S ≤2, I: 4, R: ≥8 (μg/mL)

- CDC working with CSLI to consider revision of FQ breakpoints based on clinical outcomes

- FQ MIC range of concern for *Shigella*
  - Ciprofloxacin: 0.12–1 μg/mL
April 2017: CDC Health Advisory

- FQ treatment of Shigella infection with a strain harboring quinolone resistance gene may:
  - be less effective and increase risk of a more severe clinical course
    - increased duration or severity of symptoms, increased need for hospitalization or admission to an intensive care unit, increased length of hospitalization, or increased risk of death
  - increase the risk of secondary cases if the treatment prolongs the duration or increases the quantity of organisms shed in the stool
Clinician Guidance

- Obtain a stool culture from MSM who present with fever and diarrhea, particularly if bloody, there is a suspected recent treatment failure, or if the patient is immunocompromised.
- Order AST when ordering stool culture and request ciprofloxacin AST that includes dilutions of 0.12, 0.25 and 0.5 μg/mL.
- Consider waiting for AST results before treating and check AST results.
- If PCR is used, please remember that PCR does not replace culture as an isolate is needed for serotyping and AST and is required per the 2016 updates to the CA Title 17 Reportable Disease Guidance. Any positive PCR needs a reflex culture and should be shipped to the PHL.
- Avoid prescribing FQs if the ciprofloxacin MIC is 0.12μg/mL or higher even if the laboratory report identifies the isolate as susceptible.
- Obtain follow-up stool cultures and AST in patients who have continued or worsening symptoms despite antibiotic therapy.
January- mid June 2017

- 60 cases throughout CA (additional counties in NorCal)
- LAC: 33 cases (including Long Beach)
  - 97% male (32/33)
  - 38% known MSM (12/32)
  - 61% HIV + (17/28 with known HIV status)
    • 29% out of care (5/17)
  - 29% (8/28) Hospitalized
  - 67% (10/15) cases known to be unemployed/transiently housed or homeless
Prevention

- Tailor risk reduction and prevention messaging to risk-profile of patient.

- See MSM materials in Spanish and English on the LAC DPH shigellosis website.
  
  http://publichealth.lacounty.gov/acd/Diseases/Shigellosis.htm
Reporting

- For Clinically Suspect Cases:
  - Complete the Los Angeles County Department of Public Health Confidential Morbidity Report (CMR) [http://publichealth.lacounty.gov/acd/reports/cmr-h-794.pdf](http://publichealth.lacounty.gov/acd/reports/cmr-h-794.pdf) and fax to the DPH Morbidity Unit at 888-397-3778 OR
  - Report cases by telephone during normal business hours from 8am-5pm by calling 888-397-3993.
Do you receive the LAC Health Alerts?

• If you do NOT, please subscribe online: http://publichealth.lacounty.gov/la han/

• All previous HANs also posted with level of importance noted
Questions?