Invasive Meningococcal Disease (IMD) Update

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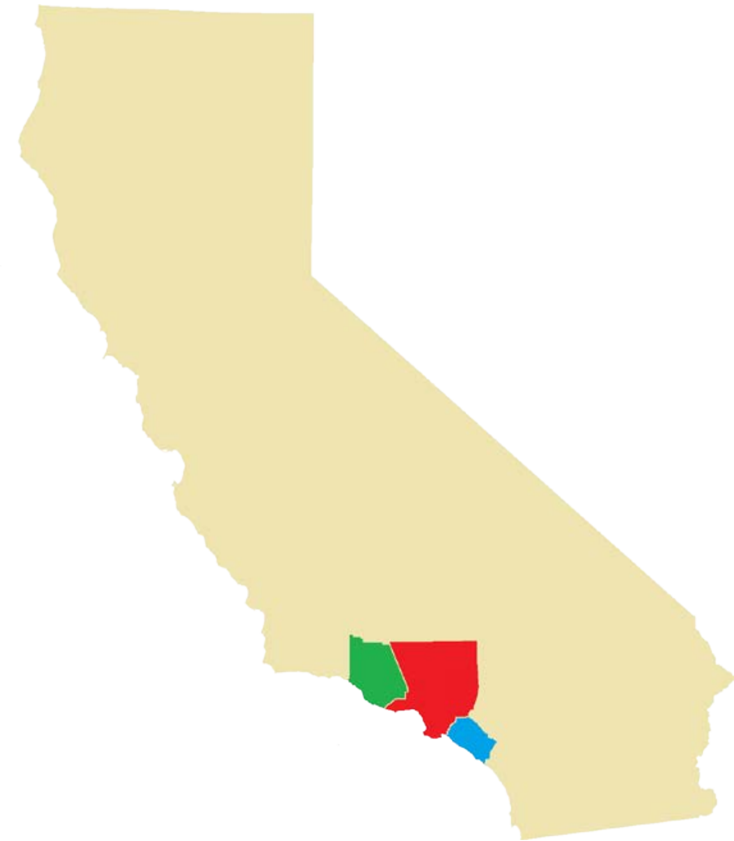
2016-17 SoCal Outbreak

- 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



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IMD Case Description (n=31)

Characteristic	Number (%)
Male	28 (90%)
MSM (% of males)	23 (82%)
Median age (range)	32 (17-76)
Hospitalized	30 (97%)
Known HIV infection	5/29 (17%)
Deaths	4 (13%)

Epidemic Curve

LAC case | LB/OC/VC case | Out of state w/ LAC exp

Number of cases

5
4
3
2
1
0

28-Feb-16 13-Mar-16 27-Mar-16 10-Apr-16 24-Apr-16 8-May-16 22-May-16 5-Jun-16 19-Jun-16 3-Jul-16 17-Jul-16 31-Jul-16 14-Aug-16 28-Aug-16 11-Sep-16 25-Sep-16 9-Oct-16 23-Oct-16 6-Nov-16 20-Nov-16 4-Dec-16 18-Dec-16 1-Jan-17 15-Jan-17 29-Jan-17 12-Feb-17 26-Feb-17 12-Mar-17 26-Mar-17 9-Apr-17 23-Apr-17 7-May-17 21-May-17 4-Jun-17 18-Jun-17 2-Jul-17 16-Jul-17 30-Jul-17 13-Aug-17

Weeks since start of the outbreak

Symptoms and Hospital Stay of LAC cases (n= 14)

	2016-17 n (%)
Nausea or vomiting	10 (71)
Triad (fever, stiff neck, altered sensorium)	7 (50)
Length of hospital stay (days)	8 (6 – 95)

Clinical Presentation of Outbreak Cases

	Cases (n=27)
Meningococcemia	63%
Meningitis	37%

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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

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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

Meningococcal Vaccines–High-risk Populations

Different vaccines protect against different serogroups.

Risk groups:
- Exp. Increased Exposure to meningococcal serogroups covered by vaccines (due to outbreaks[1], travel to affected areas [e.g. the Hajj], lab exposure)
- CD. Persistent Complement component Deficiencies (including persons taking eculizumab [Soliris®])
- Asp. Functional or Anatomic Asplenia (including sickle cell disease)
- HIV. HIV Infection

Age at first dose	Exp	CD	Asp	HIV	1) MenACWY vaccines[2]	Boosters for those who remain at increased risk
2–6 months	✓	✓	✓	✓	2 months: ACWY-CRM Menveo® → 4 months: ACWY-CRM Menveo® → 6 months: ACWY-CRM Menveo® → 12–15 months: ACWY-CRM[3] Menveo®	If primary dose(s) given when younger than 7 years: 3 years → ACWY-CRM or -D[6] Menveo® or Menactra® → Every 5 years → ACWY-CRM or -D Menveo® or Menactra®
7–23 months	✓	✓	✓	✓	ACWY-CRM Menveo® → 3 months → ACWY-CRM[3] Menveo®	
9–23 months	✓	✓			ACWY-D[4,5,6] Menactra® → 3 months → ACWY-D[4,6] Menactra®	
2 years and older		✓	✓[5]	✓[5]	ACWY-CRM or -D[4,6] Menveo® or Menactra® → 2 months → ACWY-CRM or -D[6] Menveo® or Menactra®	If primary dose(s) given at age 7 years or older: Every 5 years → ACWY-CRM or -D Menveo® or Menactra®
	✓				ACWY-CRM or -D[4,6] Menveo® or Menactra®	

2) Also give MenB vaccine—may be given at same time as MenACWY vaccine. Use the same brand for each dose in the series.

Age at first dose	Exp	CD	Asp	HIV	MenB vaccine
10 years and older	✓	✓	✓		1st dose: MenB-4C Bexsero® → 1 month → 2nd dose: MenB-4C Bexsero® **OR** 1st dose: MenB-FHbp Trumenba® → 1–2 months → 2nd dose: MenB-FHbp Trumenba® → 3rd dose: MenB-FHbp Trumenba® (6 months between 1st and 3rd dose)

Free Meningococcal Vaccine for all uninsured/underinsured MSM in LAC. Find a location here:
http://www.publichealth.lacounty.gov/ip/Docs/meningitisclinics.pdf

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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

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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 cal found here: http://publichealth.lacounty.gov/acd/Diseases/EpiForms/MeningococcalDisRep.pdf

MENINGOCOCCAL DISEASE CASE REPORT

Meningococcal Case Supplemental Form