DISCLAIMER

These slides are shared as a resource for healthcare providers to be used in conjunction with the webinar that was broadcast on 2/21/20.

This is a rapidly evolving situation so we highly recommend that you reference the resources below to stay up to date.

- Los Angeles County Department of Public Health
  For Health Professionals: http://publichealth.lacounty.gov/acd/nCorona2019.htm
  For the public, schools, media, & others: http://publichealth.lacounty.gov/media/Coronavirus/
  https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/nCOV2019.aspx
- Centers for Disease Control and Prevention
- World Health Organization
  https://www.who.int/health‐topics/coronavirus

Visit: www.publichealth.lacounty.gov/lahan
Text: the word 'LAHAN' to 66866

Disclosures

There is no commercial support for today’s webinar
Neither the speakers nor planners for today’s webinar have disclosed any financial interests related to the content of the meeting

Overview of Presentation

- Current COVID‐19 situation update
- Epidemiology and clinical characteristics
- Public health prevention efforts
- Evaluation of suspected COVID‐19
- Infection control in ambulatory settings

Clinical Update: Coronavirus Disease 2019
February 21, 2020

Dr. Rubin and Dr. Gounder are both Medical Epidemiologists and are part of the LAC DPH team overseeing the local response to Coronavirus Disease 2019.

2019 Novel Coronavirus

- Identified in Wuhan, China in December 2019
- Cluster of pneumonia of unknown etiology
- Initial cases linked to animal/seafood markets (animal‐to‐human spread)
- Subsequent cases without live animal market exposure (person‐to‐person spread)
- Travel‐related exportation of cases
• Formerly referred to as 2019 novel Coronavirus (2019‐nCoV)
• COVID-19 = disease
• SARS-CoV-2 = virus causing COVID-19

COVID-19 Global Cases by Johns Hopkins
• 75,778 confirmed cases globally (2/20/2020)
  – >99% in China
  – Approximately 1000 cases outside of China (15 in U.S.)

United States at High Risk for Receiving Travelers from China with COVID-19
• Shows the relative risk that a single infected traveler from China will come to a particular country
• United States = 5.3%
  – As of Feb 10, 2020
• 5th highest risk among all countries
• Important to maintain vigilance in returned travelers from China with a febrile respiratory illness

Key Questions About COVID-19 (Much Uncertainty!!)
• What is the clinical spectrum of illness?
• How does transmission occur? Airborne? Fomites?
• Can transmission occur before symptom onset?
• How long can someone remain infectious after illness?

Retrospective, single-center case series of 138 consecutive hospitalized patients with confirmed COVID-19 in Wuhan, China
• Signs and symptoms
  - Fever
  - Fatigue
  - Dry cough
  - Anorexia
  - Myalgia
  - Dyspnea
  - Expectoration
Natural History of 138 Hospitalized Patients with COVID-19 in Wuhan, China

- Median time from symptom onset to:
  - Dyspnea = 5 days (IQR: 1-10 days)
  - Hospitalization = 7 days
  - ARDS = 8 days
- Clinical Outcomes
  - 26% required ICU care
  - 16% developed ARDS
  - 4% died
- Median length of hospital stay: 10 days

Epidemiologic Characteristics of COVID-19 Cases in China (as of February 11, 2020)

- 72,314 people diagnosed with COVID-19
- 44,672 people with confirmed COVID-19
- Clinical characteristics/outcomes among confirmed cases
  - Majority aged 30–69 years (77.8%) and male (51.4%)
  - 81% of infections are classified as mild
  - 13.8% as severe
  - 4.7% as critical
  - 2.3% died

SARS-CoV-2 Viral Load in Upper Respiratory Specimens of Infected Patients

- Monitored viral loads in upper respiratory specimens from 18 patients
- Viral load (Ct values inversely related)
  - Detected soon after symptom onset
  - Nasal > throat swabs
  - Detected >21 days after symptom onset
- 1 never had symptoms but monitored as close contact
  - Viral load pattern similar to symptomatic
  - Concern for asymptomatic transmission

Nosocomial Transmission of SARS-CoV-2 in Wuhan China

- 57 (41%) of 138 presumed to have been infected in hospital
  - 17 patients (12%) were already hospitalized
  - 40 patients (29%) were healthcare workers
  - 10 were infected by a patient with COVID-19 who initially presented with abdominal pain
- Highlights importance of screening for risk of patient exposure to COVID-19 and maintaining high infection control standards

Epidemiological Curves of All versus Confirmed Cases of COVID-19 in China Through February 11, 2020

Potential Transmission During the Incubation Period in a Familial Cluster

- Case 1: Limited mobility, did not leave home in 2 weeks prior
  - Likely source Cases 2 or 3 who visited family (initially asymptomatic)
LA County Public Health Actions

• Provide consultation for patients with suspected COVID-19
• Monitor
  – Contacts of confirmed cases
  – Returned travelers from China
• Communicate
  – General public
  – Healthcare providers
• Review and implement CDC recommendations
  – Criteria for SARS-CoV-2 testing
  – Infection control

COVID-19 Webpage
http://publichealth.lacounty.gov/acd/nCorona2019.htm

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Evaluating Patients With Suspected COVID-19 in Ambulatory Care Settings

• Patients with respiratory illness are likely to come to your attention in one of the following ways
  – Self-report travel to China
  – Travel to China identified by provider screening
  – Patient referred to healthcare provider by Public Health
• Review Provider Check List
  – Call Public Health for consultation
• Do not collect specimen for SARS-CoV-2 testing in non-hospital settings
  – Refer to hospital if indicated by patient clinical status
  – Discharge stable patients home with home care instructions
  – Public Health will arrange for testing next business day
Provide Home Care Instructions

Home Care Instructions for 2019-Novel Coronavirus (2019-nCoV)
The following instructions are for people who have or might have 2019-Novel Coronavirus (2019-nCoV) and their families or caregivers:

Instructions to Take into Patients Who Are Not Infected:
1. Stay home, do not leave home, except to get medical care, until your healthcare provider tells you it is OK. Do not go to work, school, or public areas, and do not use public transportation or taxis.
2. Separate yourself from other people in your home. As much as possible, stay in a different room from other people in your home. If possible, use a separate bathroom. If you must be in the same room as others, wear a mask to prevent spreading germs.
3. Before you see your doctor, but when possible, call your doctor as they can prepare for your visit and know that you may have 2019-nCoV. Be prepared to explain the symptoms.
4. Cover coughs and sneezes. To prevent spreading germs to others, when coughing or sneezing, cover your nose and mouth with a cloth or handkerchief and wash your hands with soap and water after.

Overriding Principles in Caring for COVID-19 Safely

• Care for patients in a safe, culturally sensitive environment.
• Minimize risk of HCW exposure to COVID-19.
• Cause as little disruption to normal functioning as possible.


Don Personal Protective Equipment (PPE)

• STANDARD
• CONTACT
• AIRBORNE
  – Gown
  – N95 mask
  – Eye protection
  – Gloves
• Negative Pressure Isolation Room (NPIR)
  – Ideally for all
  – For aerosol-generating procedures

GOAL: Mask patient & staff within 2 minutes.

Patient mask
Provider mask/ N95 Respirator

Environmental Cleaning

• Dedicated medical equipment.
• Clean mobile equipment with EPA-registered healthcare disinfectant (watch wet contact time).
• Clean room with EPA-registered healthcare disinfectant.
• Laundry, food service utensils, medical waste management in accordance with routine procedures.

PPE for Staff Performing Environmental Cleaning of PUI Room

- For hospitalized patients: full PPE (Contact, Airborne + eye covering)
- For discharged patients:
  - Delay entry into the room
  - PPE:
    - gown, gloves
    - mask and eye protection if splashes possible


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Managing Possible COVID-19 in the Outpatient Setting

Is your clinic ready to handle COVID-19?

- Have a plan
  - Signage at check-in.
  - Travel screening at check-in.
  - PPE (surgical mask) at check-in.
  - Educate staff on necessary steps.
- Goal:
  - Mask staff & patient within 2 minutes.
  - Isolate patient within 2 minutes.
  - Glass windows with openings do not reliably protect from droplets.

Steps for Evaluating COVID-19 in Ambulatory Clinic in LA County

- Travel from China in last 14 days?
- Symptoms of URI?
- Mask patient
- Expose staff ASAP
- Notify MD
- Close the door
- Notify LACDPH

Medical assessment: Is the patient acutely ill?

ED required

No ED required

If acutely ill, call EMS and proceed to nearest hospital.

EMS should be notified of possible PUI status.

Recommend staying at home.

Phone Triage of Patients with History and Symptoms Concerning for COVID-19

- Take a phone history and screen for PUI definition.¹

Phone Triage of Patients with History and Symptoms Concerning for COVID-19

ATTENTION 患者の存在態度

| TRAINEE | 担任 | 査看相談者いすの

5. Not if patient fever
6. Isolate at home
7. Call LACDPH
8. Notify PUI status

Managing People who Require Non-COVID-19 Care Within 14 Days of Return from China.
Travelers from China who Require Medical Care (Non-COVID-19)\(^1\)

- Standard precautions for all patients
- If patient has unknown symptoms
  - Don full PPE (gloves, gown, N95, eye protection)
  - If full PPE not available: mask on HCW, mask on patient and social distancing >6 feet.
  - Screen for PUI criteria.
    - If PUI criteria negative → Standard precautions.
    - If PUI criteria +, contact LACDPH for further guidance.


Mask and PPE Shortages

- Strategies to conserve
  - Limit face to face encounters with PUI (phone, tablet).
  - Use alternatives to N95 (PAPR, etc).
  - Educate on indications for masks.
  - Contingency capacity strategies (currently not recommended by California OSHA, possibly during declared public health emergency).
    - Reuse—not for patients/PUIs in contact precautions.
    - Use after intended shelf life.


Getting ready....

- Review the LACDPH and CDC websites (situation is changing frequently)
- Practice your process
- Develop a written plan
- PPE training
- Plan for monitoring HCW

Questions

Be informed. Join the Los Angeles Health Alert Network.

The Department of Public Health e-mails priority communications to health care professionals through LAHAN. Topics include local outbreaks, emerging health issues, immunizations, and drug shortages. All LAHAN communications are archived on the LAHAN website.

Two ways to join:
Visit: www.publichealth.lacounty.gov/ahahn
Text: the word ‘LAHAN’ to 66866
Thank you for viewing the webinar

To obtain a CME certificate or certificate of attendance, complete the Survey Monkey evaluation which is posted at:
http://publichealth.lacounty.gov/cme/CoVWebinar/

You should receive your certificate within a week