

Atrium Health

COVID-19 What Businesses Need to Know

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Objectives

- Discuss the virus and how it is spread
- Global/Local perspective
- What to do/not do in seeking care
- The outlook for our area
- Tips on how to prepare as an employer
 - (travel, meeting attendance, remote work, school closings)



Definitions

- ILI: influenza (flu) like illness
- SARS-CoV-2: novel coronavirus first identified in Wuhan City, China
- COVID-19: disease caused by SARS-CoV-2
- Incubation period: period between exposure and development of symptoms
- **Super-spreader:** single individual spreads to a large-number of individuals

- Case Fatality Rate: number of deaths/number of confirmed cases
- R0: average number of people who will catch an infection from a single infected individual
 - Influenza 1.3
 - **SARS** 2-5
 - **MERS** community 0.45, nosocomial 2-5
 - SARS-CoV-2 1.5-4
 - Measles 12-16



Coronaviruses

- Family of viruses
- Can cause disease in humans and animals
 - Bats are host to largest variety of genotypes
- Ubiquitous virus that can cause infection at any time of the year
- Viral respiratory tract infection ranging from common cold to severe respiratory infection/pneumonia
- Incubation period generally 2-14 days

- Common human coronavirus types 229E, NL63, OC43 and HKU1
 - Detected in Respiratory Pathogen PCR Panel used by many facilities
- Supportive care, No treatment
- No current vaccines





SARS-CoV-2

Causing Agent of COVID

- Novel coronavirus
 - No preexisting protection in humans
- Primary host thought to be bats, ? Pangolin intermediary host
- First cases in Wuhan City, China in individuals who attended "wet" market, December 2019
 - >100,000 cases







Coronavirus COVID-19 Global Cases by the Center for Systems Science and Engineering (CSSE) at John...





0.50

United States

- >1600 cases and counting
- North Carolina
 - 17 cases as of 3/12
 - Mecklenburg, Chatham, Wake, Cabarrus, Forsyth, Johnson, Onslow, Durham
- South Carolina
 - 12 cases as of 3/12
 - Case in Lancaster county

- Pandemic declared by WHO 3/11
- NC State of Emergency 3/10
- Closures of sporting events, public events



Clinical Characteristics

- Fever/cough/URI symptoms
 - No great distinguishing feature from other respiratory viruses
- R0 1.4-4 (average number of people each infected person infects)
- ~80% mild disease, 15% severe disease, 5% critical
- Relatively limited impact to children to date
- Case Fatality Rate ?0.6%-2%??
 - Majority of morbidity/mortality in elderly with comorbid conditions





Transmission SARS-CoV-2

- Mode of transmission
 - Droplet primarily
 - 3-6 feet
- Surface contamination/contact transmission
 - Touching your eyes, nose, mouth
- Close contacts clearly most at risk
 - Household contacts
 - Within six feet for prolonged period of time/in waiting room
 - Unprotected direct contact with secretions or excretions of infected individual
- ?impact viral detection in stool??





Incubation Period

- 2-14 days, average 5 days after exposure
- Subclinical/milder symptoms early make containment difficult
- Asymptomatic transmission??
 - Lower viral burden
 - Likely less common some studies <1% of cases potential cases





Diagnosis

- Initially test only available thru CDC
- Becoming more available but still limited testing capacity at this time
- Increased cases expected as testing is expanded
- Test is done with a swab in the back of the nose and back of the throat





Treatment of COVID

- Primarily supportive
- Many do NOT need to seek care
- Avoid corticosteroids
- Treatment trials ongoing
- Vaccine trials
 - Underway
 - Fast tracked but realistically minimum of 12-18 months before ready plus longer for production time



Image: China Daily via REUTERS



Why is COVID-19 difficult to contain?

- Lack of preexisting immunity/protection
- Unable to contain in isolated regions as with prior Highly Infectious Diseases (Ebola, MERS, SARS)
- Transmission prior to symptom onset or when patient has very mild symptoms



Patients seek health care and can be diagnosed and isolated, and their contacts can be traced. A caveat is that coronaviruses have a propensity for nosocomial spread.

Patients do not seek health care, do not receive a diagnosis, and may spread the virus to contacts.



Avoid Overcrowding of Healthcare

- Probably biggest risk is overcrowding of healthcare systems
 - Truly sick
 - Worried well
 - Demands for testing
- Potential Exposure to other sick individuals in waiting rooms, long wait times, limited capacity to test in many settings
 - Masking of individuals with flu like symptoms at points of entry
 - Separate waiting areas in some places
- Virtual/e-visits preferred
 - Virtual Visit: <u>https://atriumhealth.org/virtualvisit</u>
 - eVisit: https://atriumhealth.org/evisit
 - Can help guide care to other sites if appropriate!



Absenteeism

- Employee illness
- Child/Elder care needs
- Operational priorities





Workplace Illness Management

- Actively encourage employees to say home if they are sick
 - Messaging
 - Stay home until no fever without fever lowering medications x at least 24 hours
 - Sick leave policy
 - If sick when they arrive at work, send them home





Workplace Hygiene

- Hand Hygiene
- Respiratory etiquette
- Environmental cleaning of high touch surfaces (break rooms, conference rooms, personal desk space, shared workstations, doorknobs, etc.)
 - No additional cleaning recommended by the CDC





Workplace Travel

- Minimize unnecessary travel at this point
- Many locations are cancelling business travel internationally and some even domestically
- Consider limiting large group meetings (even locally)
- Personal travel at discretion of individual
 - Current 14-day federal quarantine mandated only for travel to China





Planning Ahead

- Workplace absenteeism
 - Monitor trends
 - Plans for business continuity
 - Cross training
- Impact on susceptible employees (>65, other medical problems)
- Logistics of Tele-commuting, flexible work sites, flexible hours
- Transition meetings to virtual where possible





Importance of Communication

communicate with others. I will effectively communicate with others. I will effectively communicate with others. grammarly



Questions?





