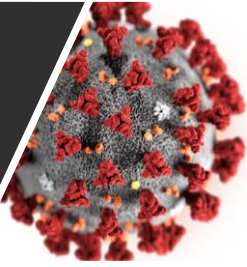




EMERGING INFECTIOUS DISEASES
CORONAVIRUS - COVID-19



Presented by:
Cathy Montgomery, RN, CASC
Managing Partner / President
Excelentia Advisory Group

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DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850



Center for Clinical Standards and Quality/Survey & Certification Group

Ref: S&C: 15-02-Hospitals/CAHs

DATE: October 10, 2014

TO: State Survey Agency Directors

FROM: Director
Survey and Certification Group

SUBJECT: Information for Hospitals and Critical Access Hospitals (CAHs) Concerning Possible Ebola Virus Disease

Memorandum Summary

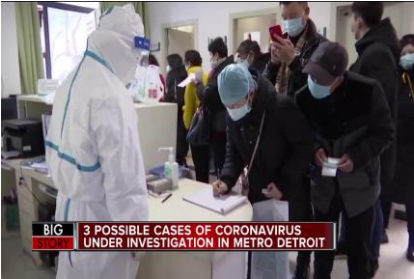
- **Screening for Possible Ebola Virus Disease:** the U.S. Centers for Disease Control and Prevention (CDC) have issued a Health Advisory Alert on Evaluating Patients for Possible Ebola Virus Disease. The CDC has also issued additional guidance, including a checklist and algorithm for patients being evaluated for Ebola Virus Disease in the United States, as well as a hospital preparedness checklist. Links to these documents are provided.

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Breaking News

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WHERE DOES THIS COME FROM?

- HIV/Aids crisis of the 1980s originated from great apes;
- The 2004-07 avian flu pandemic came from birds;
- Pigs gave us the swine flu pandemic in 2009;
- Severe acute respiratory syndrome (Sars) came from bats, via civets;
- Bats also gave us Ebola;
- Snakes or bats are suspectioned to have carried the covid-19 and perhaps picked up by the pangolin.



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DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
7500 Security Boulevard, Mail Stop C2-21-16
Baltimore, Maryland 21244-1850



Center for Clinical Standards and Quality/Quality, Safety, and Oversight Group

Ref: QSO 20-09-ALL

DATE: February 6, 2020
TO: State Survey Agency Directors
FROM: Director
Quality Safety and Oversight Group
SUBJECT: Information for Healthcare Facilities Concerning 2019 Novel Coronavirus Illness
(2019-nCoV)

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LATEST NEWS UPDATES

<https://www.medicalnewstoday.com/articles/live-updates-coronavirus-covid-19#1>

02/28/2020 16:01 GMT — Coronavirus reaches sub-Saharan Africa

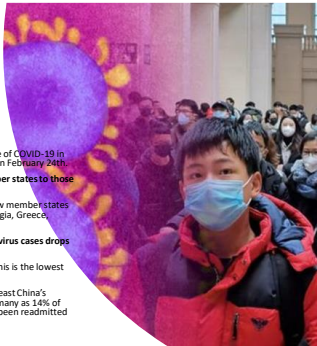
- The Lagos State Commissioner for Health announced the first case of COVID-19 in Nigeria. The patient arrived on a Turkish Airlines flight from Italy on February 24th.

02/28/2020 11:21 GMT — Latest WHO report adds nine new member states to those that coronavirus has affected

- According to the latest WHO update, in the last 24 hours, nine new member states have registered cases of COVID-19: Brazil, Denmark, Estonia, Georgia, Greece, Norway, Pakistan, Romania, and North Macedonia.

02/28/2020 10:11 GMT — Mainland China: Number of new coronavirus cases drops to lowest since January

- On Thursday, mainland China had 327 new cases of coronavirus; this is the lowest number since January 23rd.
- Song Tie, vice-director of the local disease control center in southeast China's Guangdong province, told a press briefing on Wednesday that as many as 14% of discharged patients in the province had tested positive again and been readmitted to hospital for observation.



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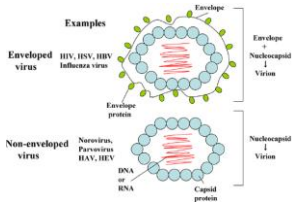
Definitions

- Novel = new
- Pandemic = 1) caused illness, including resulting in death
2) Sustained person to person spread
3) World-wide spread of new virus

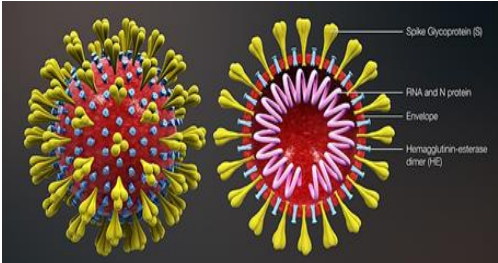


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Enveloped vs Non-enveloped



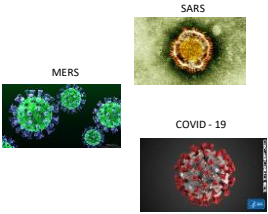
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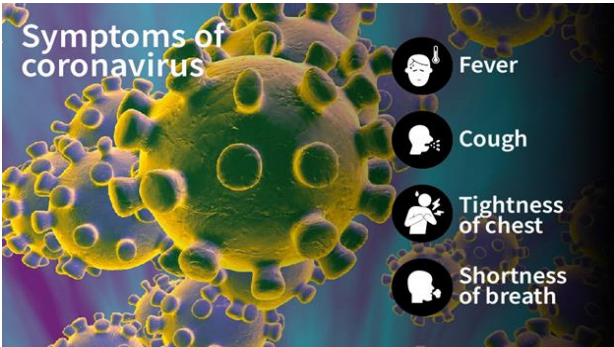
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Coronavirus

- One of a number of viruses – 1960s
- Causes diseases in mammals and birds
- Causes respiratory infections in humans
- SARS
- MERS
- COVID-19



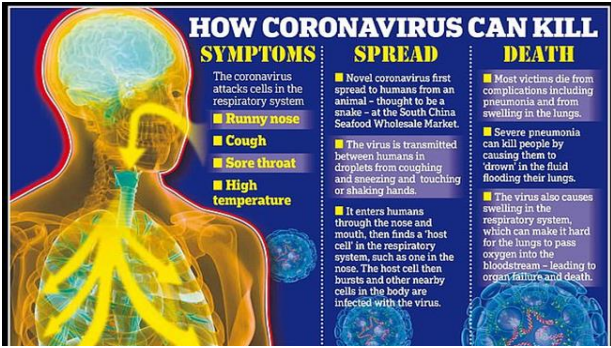
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MYTH 1
It's referred to as Wuhan Coronavirus because it happened there and it only affects those who live in that area or individuals who are Asian.

FACT
In the beginning, some people referred to the novel Coronavirus as Wuhan Coronavirus. The World Health Organization (WHO) has officially named the virus COVID-19. Naming guidelines for new pathogens follow the rule of not naming them after people, places, ethnic groups, animals or foods because this can be offensive or create a stigma.

People of all ages and ethnicities, no matter where they live, can be infected by COVID-19. To protect yourself against the virus, follow good hand and respiratory hygiene.

A green dragon with large wings, standing on its hind legs and facing left. It has a long tail and a small horn on its head.

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MYTH 3
COVID-19 is a bigger risk to our health than the flu.

FACT
Influenza (also known as the flu), is currently having a much bigger impact on the United States than COVID-19. So far this season, 22 million people have been affected by it and over 15,000 have died from the flu. It is expected that flu transmission will continue until mid-March.

Vaccination, hand-washing and avoiding ill persons will help protect you from the flu. If you get the flu, schedule an appointment with your primary care doctor. Medications such as Tamiflu® can be used for treatment, particularly if you are older or have underlying illnesses.

A green dragon with large wings, standing on its hind legs and facing left. It has a long tail and a small horn on its head.

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MYTH 6
Spraying alcohol, chlorine or bleach all over your body will protect you from the virus.

FACT
No, spraying alcohol, chlorine or bleach all over your body will not kill any viruses that have already entered your body or protect you from those who could have the virus. These substances can be used to disinfect surfaces but are harmful when they come directly in contact with your skin, eyes, or mouth.

MYTH 7
Using a saline rinse frequently for your nose will help prevent infection.

FACT
No, there's no evidence that regularly using a saline rinse will prevent infection with COVID-19.

MYTH 8
Gargling with mouthwash daily will protect you from the virus.

FACT
No, there's no evidence that regularly gargling with mouthwash will prevent infection with the virus.



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MYTH 9
Eating garlic or sesame oil will stop me from getting the virus.


FACT
No. There's no evidence that eating these foods will prevent infection with COVID-19.

MYTH 10
Pets can carry and spread COVID-19.

FACT
At present, there is no evidence that pets can be infected by the virus.

MYTH 11
COVID-19 only infects the old or the young.

FACT
People of all ages can be infected with COVID-19. Older individuals and those with pre-existing medical conditions may be more vulnerable to this virus. To protect yourself and others against the virus, follow good hand and respiratory hygiene.




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MYTH 12
There's a vaccine or medicine that I can get to protect myself from the virus.

FACT
Scientists are currently working on developing a vaccine that is safe and effective, however there are no vaccines or medicines that can protect or cure COVID-19 at this time.

MYTH 13
Using hand dryers or ultraviolet disinfection lamps will kill the virus.

FACT
Hand dryers and ultraviolet disinfection lamps used directly on skin are not effective in killing COVID-19. To protect yourself against the virus, you should frequently wash your hands with soap and water.



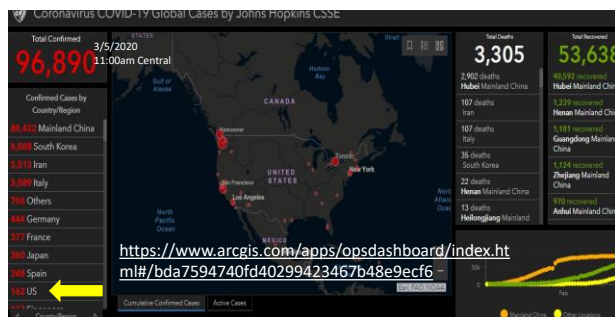
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THIS IS NO MYTH HOWEVER...

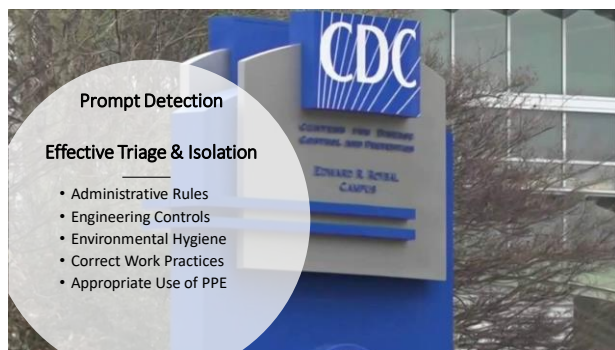


<https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

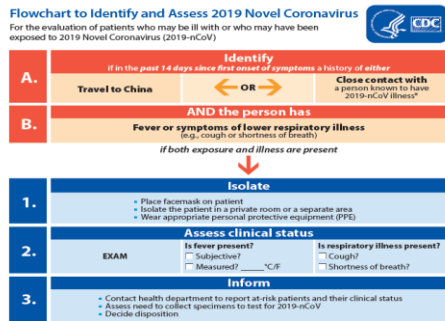
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PREVENTION & TREATMENT PER THE CDC

<p>Avoid close contact with people who are sick.</p>	<p>Avoid touching your eyes, nose, and mouth with unwashed hands.</p>	<p>Stay home when you are sick.</p>
<p>Cover your cough or sneeze with a tissue, then throw the tissue in the trash.</p>	<p>Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.</p>	<p>Follow CDC's recommendations for using facemask:</p> <ul style="list-style-type: none"> CDC does not recommend that people who are well wear facemask to protect themselves from respiratory viruses, including 2019-nCoV. Facemask should be used by people who show symptoms of 2019 novel coronavirus, in order to protect others from the risk of getting infected.



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PPE ASSESSMENT

Assess the Risk to the Healthcare Worker

- No Known Prior Infections is equal to low risk
- Infectious person has been present but no longer there is equal to medium
- Infectious person present is equal to a high risk



Low Risk PPE

- Filter mask
- Gloves over the wrist

Medium Risk PPE

- Surgical mask
- Eye protection/face shield
- Disposable gown
- Gloves
- Shoe covers (not needed if no visible human waste)

High Risk PPE

- N-95 mask
- Eye protection/face shield
- Disposable gown
- Gloves
- Shoe covers

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• **Respirator Rating Letter Class**

- **N** - Not oil resistant
- **R** - Resistant to oil
- **P** - Oil Proof



• **Respirator Rating Number Class**

- **95** - Removes 95% of all particles that are at least 0.3 microns in diameter
- **99** - Removes 99% of particles that are at least 0.3 microns in diameter
- **100** - Removes 99.97% of all particles that are 0.3 microns in diameter or larger. HE or HEPA quality filter.

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The Story
of the
Mask

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Emerging Infectious Diseases - Coronavirus

- Discussion with
- Cathy Montgomery, RN CASC and
- Loie Ruhl Couch, BS, RN, CIC

<https://youtu.be/Ojm29iC4ZD0> Cathy and Loie

ESCELLUNTIA

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- Human coronaviruses can remain active on surfaces such as metal, glass, or plastic for up to 9 days after exposure. The best way to deal with that problem is by cleaning those surfaces with a solution that's 62% to 72% ethanol, .5% hydrogen peroxide, or 0.1% sodium hypochlorite within 1 minute of contamination

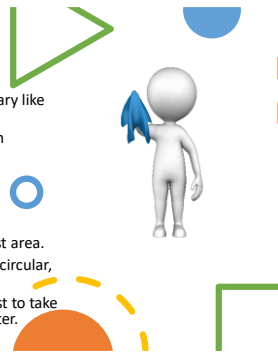
*according to investigators with University Medicine Greifswald and Ruhr University Bochum in Germany whose study ran as an article in press in the *Journal of Hospital Infection (JHI)*



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PROCESSING THE ENVIRONMENT

- Fogging or massive spraying is unnecessary like we see in the news.
- Remove soiling on surface if it exists with cleaning.
- Utilize an EPA-approved disinfectant.
- Use red microfiber cloths.
- Clean & disinfect from top to bottom.
- Clean & disinfect from cleanest to dirtiest area.
- Clean horizontally from left to right, not circular, not S pattern, or other pattern.
- Assign an informal infection preventionist to take charge of STAT disinfecting after encounter.



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WHO CAN MAKE CLAIMS A PRODUCT IS APPROVED BY EPA FOR COVID-19?

NO ONE!

For more information on the EPA's registration process for novel viruses, check this out:

OUTBREAK CRITERIA ASSOCIATED WITH EMERGING PATHOGENS PROCESS

https://www.epa.gov/sites/production/files/2016-09/documents/emerging_viral_pathogen_program_guidance_final_8_19_16_001_0.pdf



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PICKING YOUR DISINFECTANT

- The efficacy criteria are based on the ease with which the three types of viruses—enveloped, large non-enveloped and small non-enveloped viruses—are inactivated by disinfectants. The general idea of the EPA's policy is that in order for a disinfectant to be considered effective against an emerging pathogen, it must demonstrate efficacy—that is, have an EPA-approved claim—against viruses that are harder to kill than the emerging pathogen.
- SARS-CoV-2, the virus responsible for the COVID-19 outbreak, is an **enveloped** virus and therefore the **easiest** to kill of the three types of viruses. This means the efficacy criteria for a disinfectant is as follows:
 - A disinfectant must be **EPA-approved** as a **hospital/healthcare** or broad-spectrum disinfectant
 - Lastly, the EPA-approved master label must contain emerging pathogen "terms of registration" language describing what emerging pathogen claims the manufacturer can make. Typically, this takes the form of language such as:

Emerging Viral Pathogen Claims
Allowable and subject to the terms described
in Agency guidance dated August 19, 2016,
"Guidance to Registrants: Process for Making
Claims Against Emerging Viral Pathogens not
on EPA-Registered Disinfectant Labels
This product qualifies for emerging pathogen claims against:

- Enveloped viruses
- Large non-enveloped viruses
- Small non-enveloped viruses

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HANDOUT

The handout features a collage of disinfectant products including bottles of Clorox, Lysol, and others. Below the images is a table titled "EPA-Approved Disinfectant Products" with columns for "Disinfectant Product Name", "EPA Registration Number", and "EPA EPA No.". The table lists various disinfectants and their corresponding EPA registration numbers.

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Hand-held meters test surfaces for adenosine triphosphate (ATP), which is the energy molecule found in bacteria, mold, fungus and other organic matter.

Units provide feedback in less than 30 seconds.

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- Los Angeles International
- San Francisco International
- Chicago O'Hare
- New York JFK
- Atlanta Hartsfield-Jackson International
- Houston George Bush Intercontinental
- Dallas-Fort Worth International
- San Diego International
- Seattle-Tacoma International
- Honolulu International
- Anchorage Ted Stevens International
- Minneapolis-St. Paul International
- Detroit Metropolitan
- Miami International
- Washington Dulles International
- Philadelphia International
- Newark Liberty International
- Boston Logan International
- El Paso International
- Puerto Rico's San Juan Airport



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Develop Your Plan

Adherence to Standard, Contact, & Airborne Precautions

Manage Visitor Access & Movement Within the Facility

Implement Engineering Controls

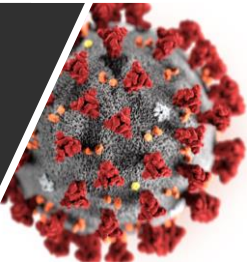

Monitor & Manage Ill & Exposed Healthcare Personnel

Train & Educate Healthcare Workers

Establish Relationship with DOH /CDC

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EMERGING INFECTIOUS DISEASES
CORONAVIRUS - COVID-19



QUESTIONS?

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Managing Partner / President
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