

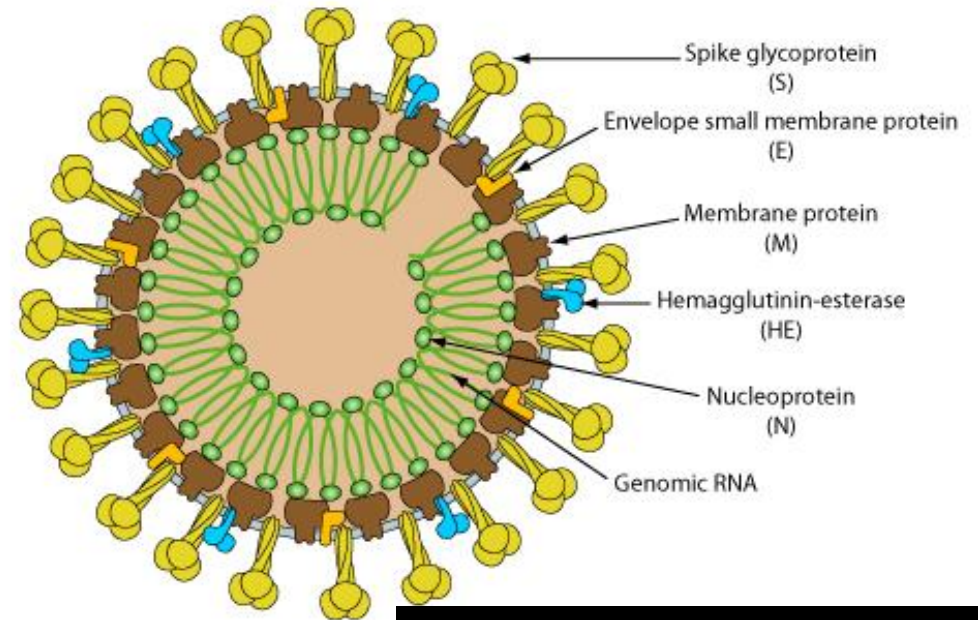
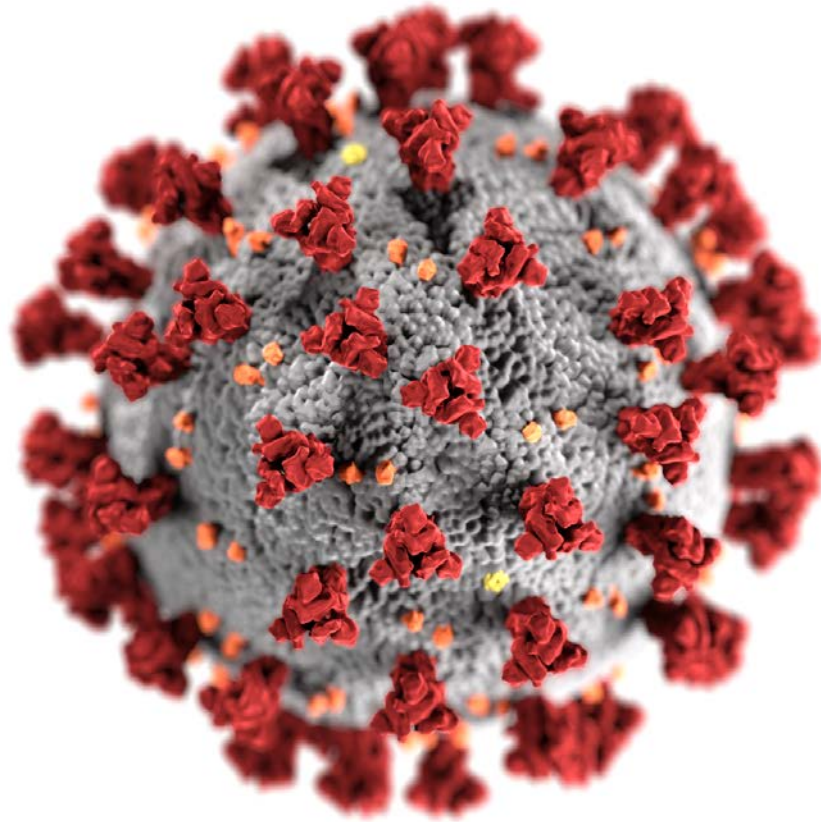
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THE IMPACT OF CORONAVIRUS ON CHRONIC DISEASES.

QUARTERLY MEETING MARCH 31, 2020.

CORONAVIRUS



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FOUR GENERA OF CORONAVIRUS

Alphacoronavirus
(alphaCoV) – Bats
and Rodents

Betacoronavirus
(betaCoV)- Bats and
Rodents

Deltacoronavirus
(deltaCoV)- Avian

Gammacoronavirus
(gammaCoV)- Avian



WHAT IS CORONAVIRUS (CO V)

Coronavirus:
enveloped positive
sense, single-
stranded RNA VIRUS

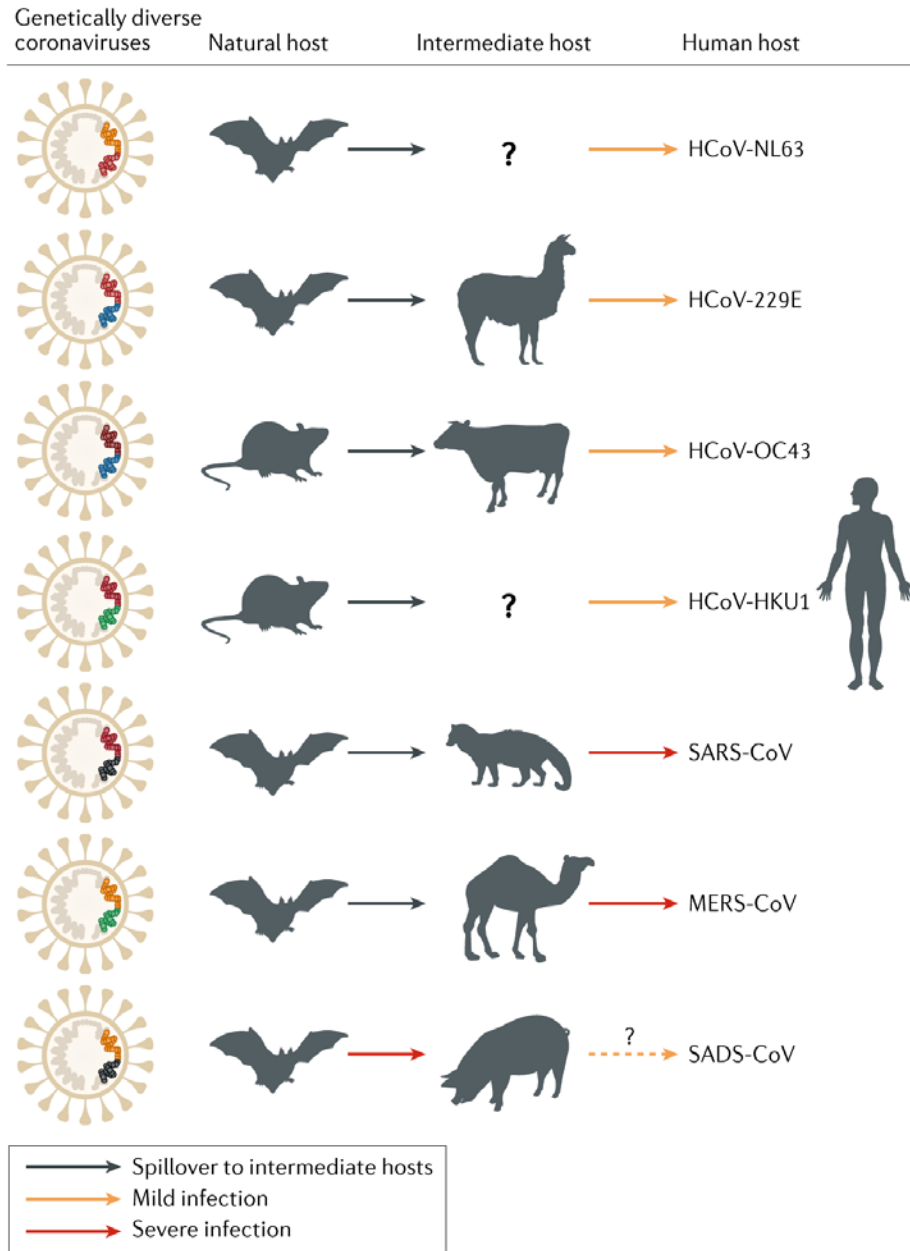
Family: Nidovirales
– animal and human
host

MERS- CoV: Middle
East Respiratory
Syndrome

SARS-CoV: Severe
Acute Respiratory
Syndrome

COVID-19
Coronavirus
disease 2019



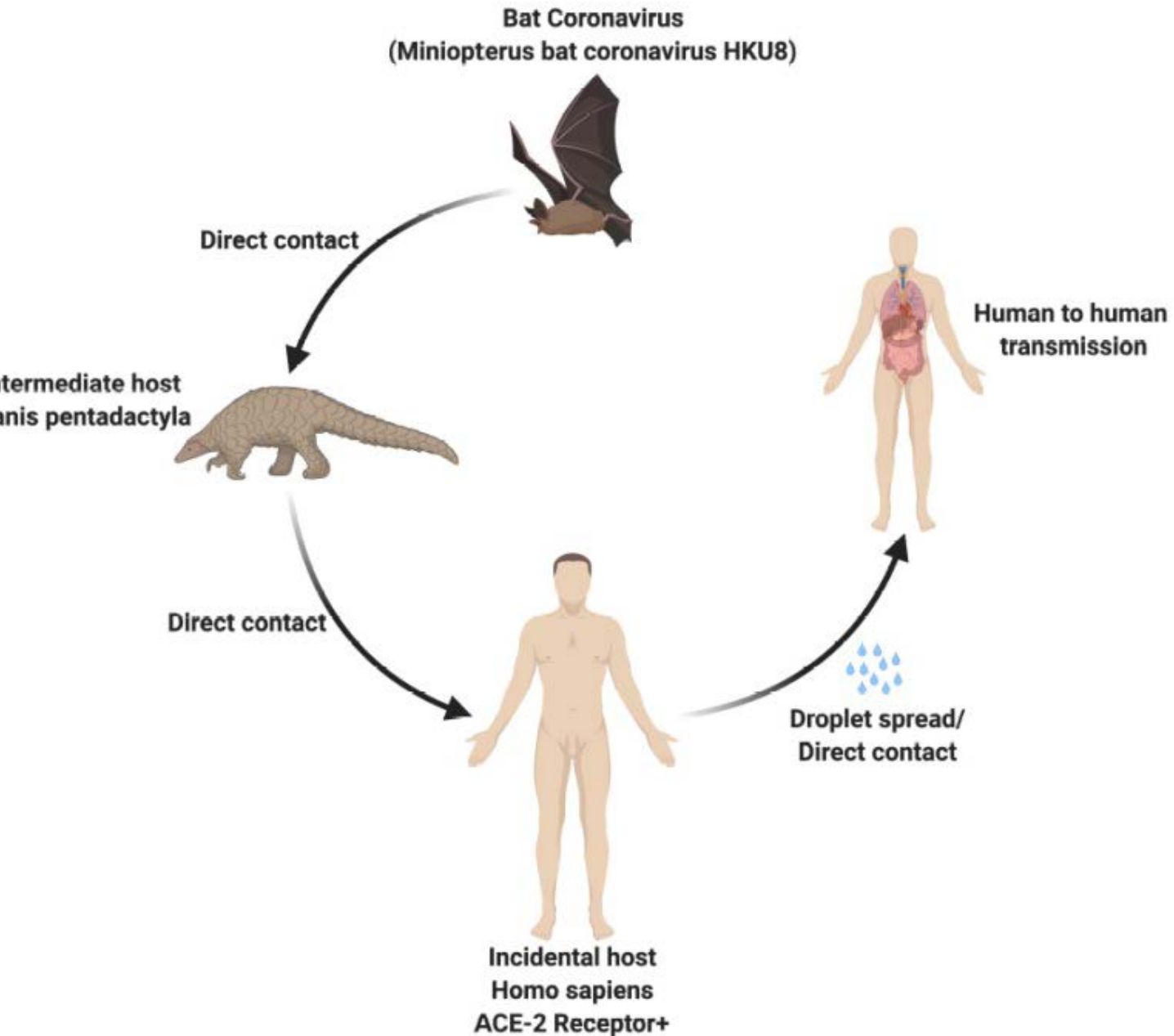


ORIGIN OF CORONAVIRUS

- **Natural host** → Bat and Rat
- ↓
- **Intermediate host** → Carmel, Civet cat, Camelids, Piglets
- ↓
- **Human host**
- ↓
- **Another Human**



Transmission Cycle of SARS CoV 2



TRANSMISSION CYCLE OF SARS COV 2 (COVID- 19).

Contributed by Rohan Bir
Singh MD; Made with
Biorender.com



COVID-19

COVID-19 was first reported from Wuhan, China, on 31 December 2019.

COVID-19 is a new strain that was discovered in 2019 and has not been previously identified in humans.



INCUBATION PERIOD

Symptoms may appear within 2 days

May take up to 14 days

Estimated ranges vary from 2-10 days, 2-14 days, and 10-14 days,

During which the virus is contagious

But the patient remains asymptomatic

Thus asymptomatic transmission.



TRANSMISSION

Spread mainly
from person-to-
person.

Close contact
within about 6 feet.

Respiratory
droplets when an
infected person
coughs or sneezes.

Droplets land in
the mouths or
noses of non-
infected person

Droplets can
possibly be
inhaled into the
lungs.



SYMPTOMS: 2 TO 14 DAYS

High Fever

Dry cough

Shortness of
Breath

Sore 3-4 throat
days

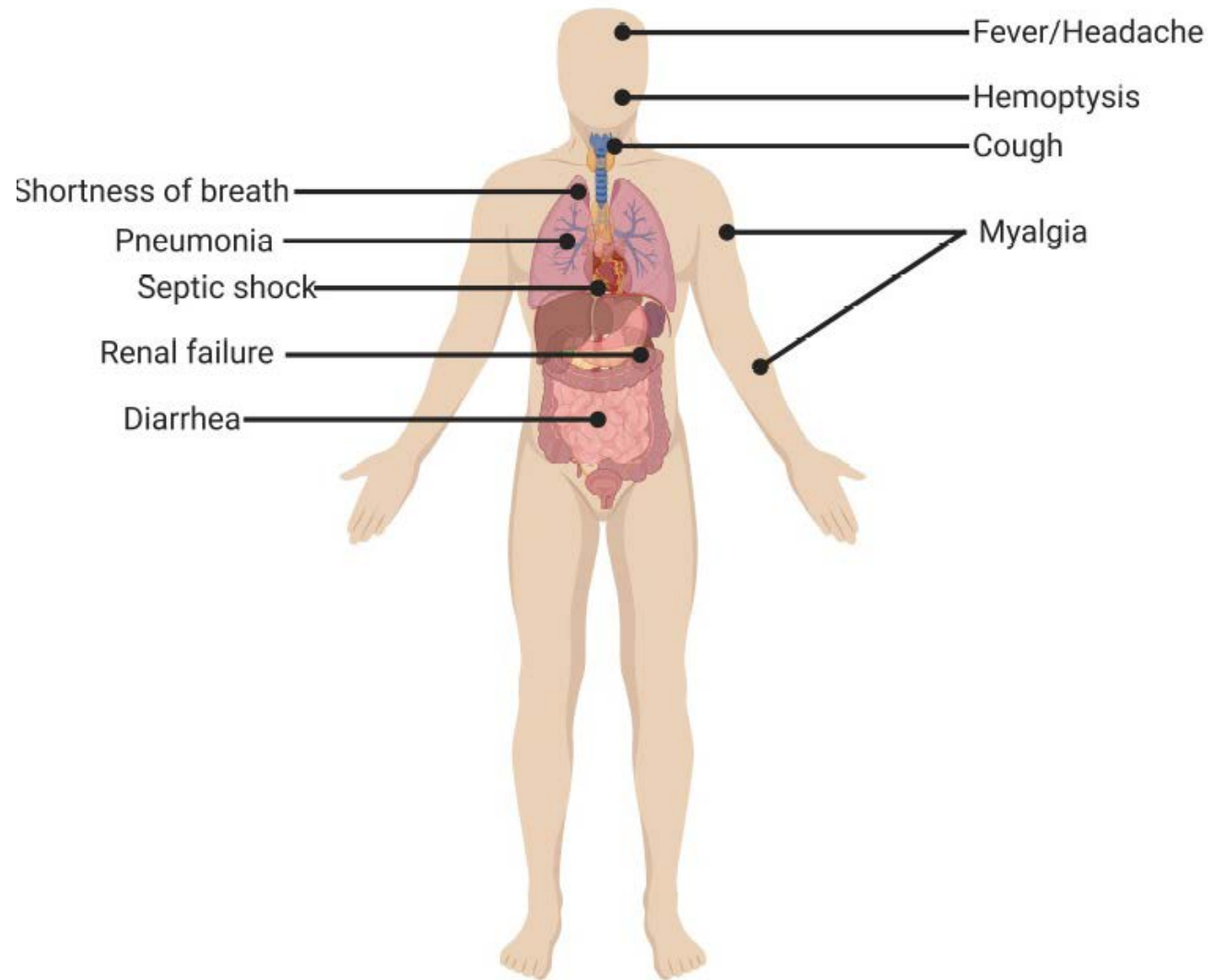
Difficulty
breathing

Pneumonia

Nasal
congestion feel
like drowning



Clinical presentation of patients with CoVID-19



CLINICAL PRESENTATION

- Contributed by Rohan Bir Singh MD; Made with Biorender.com



Trouble breathing

Persistent pain or pressure in the chest

New confusion or inability to arouse

Bluish lips or face

**EMERGENCY
WARNING SIGNS
GET MEDICAL
ATTENTION
IMMEDIATELY**



SYMPTOMS

Disease conditions	Primary Symptoms	Less Frequent Symptoms
COVID -19	Dry cough Fever Shortness of breath Fatigue	Diarrhea Aches and pains Nasal congestion Running nose Sore throat
COMMON COLD	Sneezing Stuff nose Sore throat Mild to mod. Chest discomfort and cough	Fatigue Body aches
SEASONAL ALLERGIES (Hay Fever)	Running nose Itchy eyes, mouth, or skin Sneezing Stuffy nose	Wheezing Shortness of breath Fatigue due to lack of sleep
SEASONAL FLU (Influenza)	Cough Muscle or body aches Headache Fatigue Fever may or may	Sneezing Sore throat Running or stuff nose Nausea Diarrhea
www.healthline.com/health/	Coronavirus-symptoms#symp	toms.



PREVENTION OF COVID-19

AVOID CLOSE CONTACT
WITH ANYONE SHOWING
SYMPTOMS OF
RESPIRATORY ILLNESS
SUCH AS COUGHING
AND SNEEZING

AVOID CROWD

COVERING MOUTH AND
NOSE WHEN COUGHING
AND SNEEZING

DRINK WARM WATER
AND HYDRATE VERY
WELL.

REGULAR HAND
WASHING

THOROUGHLY COOKING
MEAT AND EGGS



FIVE MUST DO. PREVENTION OF COVID-19 BY WHO.

1. HANDS
Wash them
often

2. ELBOW
Cough into
it

3. FACE
Don't touch
it

4. SPACE
Keep safe
distance

5. HOME
Stay if you
can



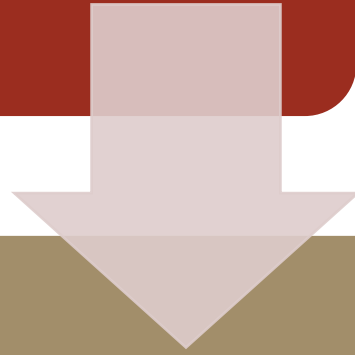
TREATMENT

There is no specific medicine to prevent or treat coronavirus disease (COVID-19). People may need supportive care to help them breathe.

There is currently no vaccine to prevent coronavirus disease (COVID-19)



Infection
prevention and
control measures



Supportive care:

- Supplementary oxygen
- Mechanical ventilatory support when indicated.

**CLINICAL
MANAGEMENT**



NON- PHARMACOLOGICAL SELF-TREATMENT

- Mild symptoms: stay at home.
- Rest and sleep
- Keep warm
- Drink plenty of warm liquids
- Room humidifier or take a hot shower to help ease a sore throat and cough



THERAPEUTIC OPTIONS FOR COVID -19 PATIENT - CDC

The two options

Chloroquine: malaria, chemoprophylaxis
and certain inflammatory conditions

Hydroxychloroquine: rheumatoid arthritis,
systemic lupus erythematosus and porphyria
cutanea tarda.

Investigational agents: Remdesivir currently in use in
the United States.



CORONAVIRUS THREATENS AMERICANS WITH UNDERLYING CONDITIONS



- Those with chronic health problems are more likely to develop severe illnesses and to die, research shows.



ITALY REPORT ON CHRONIC DISEASE AND COVID-19

- Italy's National institute of Health on 3/17/20, 99% of death has one preexisting condition
- 50% of deaths had 3 preexisting condition
- 76.1% of deaths had hypertension
- 35.5 % death rate for diabetic
- 20.3% death rate for active cancer in the past five years
- 18% death rate for those with chronic kidney disease
- 13.2% death rate for COPD, Lung diseases: chronic emphysema & bronchitis
- 10% death rate for heart diseases
- 9% death rate for previous stroke
- 6.8% death rate for dementia
- Chronic Liver disease was the 10 th most disease among COVID 19 patients that die.



STATISTICS OF CHRONIC DISEASES IN USA

60% of Americans has one chronic disease

40% of Americans has more than one chronic diseases

Chronic diseases and old age can exacerbate coronavirus infection, studies show



CORONAVIRUS MORE SEVERE WITH CHRONIC DISEASES

Disease conditions	Why	Prevention
1. Heart disease	Lung burden on heart, weak immune system	Hand wash, disinfect high-tough surfaces, stay home, Vaccinations
2. Diabetes	Virus thrive on higher blood glucose Compromised immune sys.	Standard precaution (SP)
3. Kidney disease	Compromised perfusion to the kidney	Don't miss dialysis + SP
4. Lung diseases (emphysema or bronchitis)	Lungs are weak, Covid-19 inflammation	Standard precaution
5. Stroke	No immediate danger	Standard precaution
6. Dementia	Characteristics of the people	Caregivers make extra effort to keep the safe SP.



Old people

All ages with
underlying
health
conditions:
heart disease,
lung disease, &
diabetes

Pregnant
women and
children

Homeless
shelter
population

HIGH RISK GROUPS

MOST IMPORTANT PRECAUTION FOR CHRONIC DISEASES

SOCIAL ISOLATION.

STAY AWAY FROM SICK
PEOPLE

CONTINUE TO EXERCISE
AT HOME, IF YOU CAN, AND
TAKE CARE OF YOUR
PRIMARY MEDICAL
PROBLEMS, "PARTICULARLY
DIABETES.



QUESTION



QUESTIONS

- Follow the CDC guidelines
- Follow the New Mexico department of health guideline
- Follow your workplace protocol.
- Don't ignore anything it can happen to anybody.
- Be safe and healthy
- Thank you!!!

YOU can email me, your question at

Pharmacist@PHPCABQ.COM

WWW.Publichealthpharmacistclinic.com



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