36th Medical Group

Trusted Care, Anywhere

Treatment for Moderate COVID19 Patients

David Hao Chen Maj. USAF MD PhD
Family Medicine / Medical Director
36th MDG, Andersen AFB

U.S. AIR FORCE

Prepare to SHOCK…Medics Rock!
Introduction

- Coronaviruses are important human and animal pathogens
- Understanding of COVID-19 is evolving
- Interim guidance has been issued by the DoD and by the United States NIH
OBjectives

- Clinical features and disease categories
- Assessment and evaluations
- Treatment for moderate disease
- Reevaluation and Goal
Clinical features

- Asymptomatic infections
- Mild illness: fever, cough, sore throat, malaise, headache, muscle pain but no SOB, dyspnea or abnormal imaging
Clinical features

- **Moderate illness**: $\text{SaO}_2 > 93\%$ on room air at sea level

- **Severe illness**: respiratory frequency $> 30$ breaths per minute, $\text{SaO}_2 \leq 93\%$ on room air at sea level, $\text{PaO}_2/\text{FiO}_2 < 300$, or lung infiltrates $> 50\%$

- **Critical illness**: respiratory failure, septic shock, and/or multiple organ dysfunction
General Principle

- Continuum of care
- Rationale for outpatient management and remote care
- Flexibility in approach to care
Assess risk for severe disease
High Risk

- Age >=65yrs
- Residence in a nursing home or long-term care facility.
- Immunocompromising condition
- Chronic lung disease or moderate to severe asthma
- Cardiovascular disease (including HTN, CHF et.)
- Severe Obesity (BMI>=40)
- DM, CKD, cerebrovascular disease, Chronic liver disease
- Tobacco use disorder

Prepare to SHOCK...Medics Rock!
Assess risk for severe disease

Moderate risk

- Age 20-64 years, without any of the specific comorbidities
- Age <20 years, with underlying medical conditions other than those listed above
Assess risk for severe disease
Low risk

- Age < 20 years, without underlying medical conditions
Assess Symptoms
duration and severity

- Time course and development of dyspnea
- Dyspnea assessment
- Oxygenation assessment
- Assessment of overall acuity level
Assessment of overall acuity level

- Orthostasis
- Dizziness
- Falls
- Hypotension (If home BP machine available)
- Mental status change
- Observed cyanosis
- Urine output

Prepare to SHOCK...Medics Rock!
36 MDG COVID-19 Guidelines for Wellness Check for POSITIVE COVID19 patients  
CAO 21 June 20  
OPR: Lt Col Valina/Capt Ramos

Does pt have any symptoms? Or Looking sick? Or Altered Mental Status **

Pt answers NO

Routine wellness check **

Pt answers Yes

What are the symptoms? **
If pt is in obvious cardioresp. Distress/ill-looking/altered mental status, call 911 and your flight chief ASAP

Fever
Respiratory symptoms
Cardiac symptoms

Measure temp (at least twice) and observe overall appearance of pt
Measure RR and pulse ox, and observe overall appearance of pt
Measure HR and pulse ox, and observe overall appearance of pt

What are your findings?

a. If normal AND have no concerns
Continue routine wellness check

b. If normal, BUT have concerns **
Contact On-Call provider  
AM (0600-1700): 688-2465  
PM (1700-0800): 681-0869

If normal AND have no concerns
Continue routine wellness check

c. If abnormal, AND/OR have concerns **
If all are within normal range, continue routine wellness check

** If any is Abnormal,  
a) reassess in 5 to 10 minutes, and  
b) measure RR

Normal parameters:  
- HR over 60bp but less than 100bpm  
- Pulse ox over 94%  
- Temp over 97.7F but than 99.9F

NOTE: ** if pt is in obvious cardioresp distress and/or ill-looking and/or altered mental status, let your flight chief ASAP and/or call 911.
Determine if in-person evaluation warranted

- Criteria for evaluation in ED
- Severe dyspnea (dyspnea at rest, inability to speak in complete sentence)
- Oxygen saturation on room air less than 90%
- Alterations in mentation or other signs and symptoms of hypo perfusion or hypoxia

Prepare to SHOCK...Medics Rock!
Prepare to SHOCK...Medics Rock!
Management

- Infection control
- Reinforce the importance of infection control and self-isolation and provide instructions on the anticipated duration of isolation
Symptom Management

- Antipyretic
- Analgesics for fever/myalgia/headache
- Generally prefer acetaminophen
- NSAID use is acceptable if symptoms do not respond to acetaminophen

Prepare to SHOCK...Medics Rock!
Symptom Management

- Advise patients to stay well hydrated
- Cough: OTC dextromethorphan or benzonatate 100mg to 200mg orally tid prn
- Rest as needed
Symptom Management

- Self-proning: resting in the prone rather than the supine position
- Caution patients that worsening dyspnea still warrant contact with their clinician for further evaluation
Managing other potential causes of symptoms

- Influenza
- Strep pharyngitis
- Community-acquired pneumonia
- CHF
- Asthma
- COPD
- Anxiety

Prepare to SHOCK...Medics Rock!
COVID-19 specific therapy

- Limited role
- Medications for COVID-19 specific therapy should not be prescribed in the ambulatory setting outside of a clinical trial
- Data are extremely limited
- Concerns for potential toxicity in an unmonitored setting

Prepare to SHOCK...Medics Rock!
Antiviral therapy

Remdesivir: Investigational antiviral agent
•There are insufficient data for the NIH Panel to recommend for or against remdesivir for the treatment of patients with mild or moderate COVID-19 (NIH).
Medication management

- In general, usual home medication not adjusted
- Avoid using nebulizer in the presence of others
- Continue to use CPAP and BPAP for sleep apnea, use only when isolated from others
- Consult prescribing physician about immunomodulating medication, about risks and benefits
- Thromboprophylaxis may be appropriate for certain patients, such as those at high risk of venous thromboembolism

Prepare to SHOCK...Medics Rock!
Reevaluation

Warning symptoms:

- New onset or worsening dyspnea
- Dizziness
- Mental status changes such as confusion
- Respiratory decline may occur 1 week after onset
- COPD and Asthma patients advised to closely monitor respiratory status

Prepare to SHOCK...Medics Rock!
Summary

- Clinical features and disease categories
- Remote vs In-person assessment
- Management options: mainly supportive
- Medications for COVID-19 specific therapy should not be prescribed in the ambulatory setting outside of a clinical trial
- When to reevaluate

Prepare to SHOCK...Medics Rock!
References

- DoD COVID-19 PMG v3 14 May 2020
- NIH COVID-19 Treatment Guidelines: last Update 16 June 2020
- UPTODATE COVID-19 Outpatient management in Adults

Prepare to SHOCK...Medics Rock!
Questions?