Quality Improvement Organizations
Sharing Knowledge. Improving Health Care.
CENTERS FOR MEDICARE & MEDICAID SERVICES

SUPERIOR HEALTH
Quality Alliance

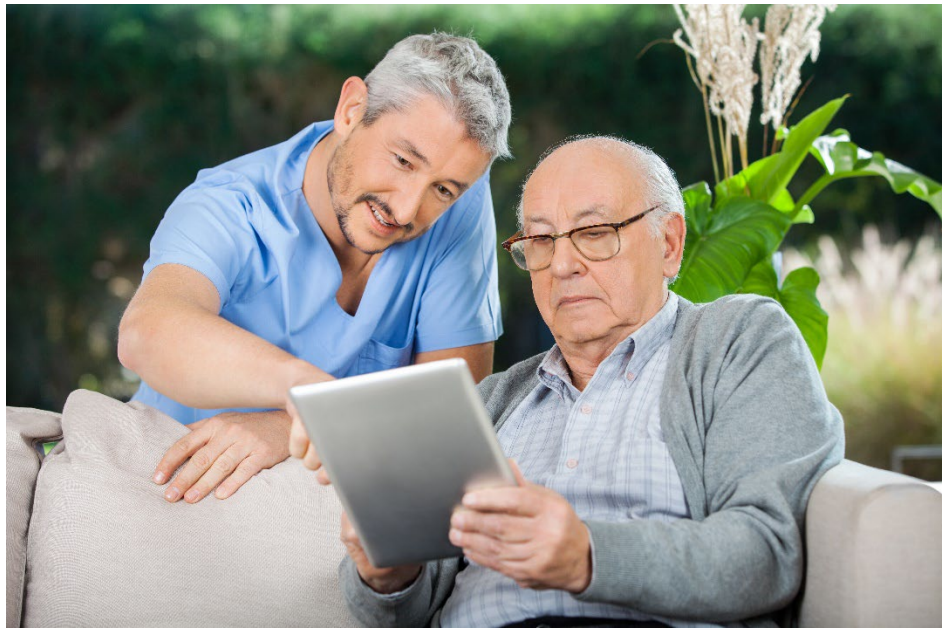
Avoiding the ED with COVID-19:
Strategies for Mitigating Morbidity from COVID-19

Robert Redwood MD, MPH
Emergency & Preventive Medicine Physician
April 13, 2022

We need your help!

The Residents' Voice

Share stories from your residents about their decision/willingness to receive the COVID-19 booster. Superior Health Quality Alliance will turn these stories into shareable one-page testimonials for your staff/residents, other nursing homes and resident/family councils to improve the rates of the COVID-19 booster in long-term care. If you have a resident booster story to share, please reach out to Toni Kettner, tkettner@metastar.com, for more details.



CMS COVID-19 Scenario-Based Training

- Free Targeted COVID-19 Training for Frontline Nursing Home Staff and Management.
- The Centers for Medicare & Medicaid Services (CMS) is monitoring which nursing homes have at least 75% of their staff completing this training.
- Includes information and competencies on COVID-19 preparedness, resident-centered care and infection prevention and control.
- Nursing home staff members completing this training can earn certificates of participation.
- Participants must create an account and take the pre-test, post-test and evaluation in the Quality, Safety and Education Portal (QSEP) for it to be counted. Download the training instructions.
- If you would like to offer this training to your staff in a group setting, download the group training instructions.
- Questions about this training? Contact Kristi Wergin (kwergin@stratishealth.org) at Superior Health Quality Alliance.

Quality Improvement Organizations
Sharing Knowledge. Improving Health Care.
CENTERS FOR MEDICARE & MEDICAID SERVICES

SUPERIOR HEALTH
Quality Alliance

Conflict of Interest Disclosure

Robert Redwood MD, MPH has no real or apparent financial relationships to report.

Goals of this Presentation

Yes

- Update on evidence-based therapies to mitigate COVID-19 morbidity
- Explain usual emergency department (ED) care for COVID-19
- Explain who gets admitted with COVID-19

No

- Outline comprehensive COVID-19 care
- Deep dive into side effects and contraindications
- Pretend that I understand the nuances of COVID-19 in long-term care (LTC) settings

How to Prevent COVID-19

“The Hammer and The Dance”

- Check percent positivity and other key metrics
- Mask-up: Cloth<Surgical<N95<both
- Yes to face shields and eye protection in high-risk settings
- Hand hygiene (fomite risk relatively low)
- Physical distancing
- Avoid large crowd events
- Test and contact trace per policy
- Physical plant
- HEPA filters, natural airflow, barriers/sneeze guards, cohort patients as appropriate

Source: Coronavirus Disease 2019 (COVID-19) | Centers for Disease Control and Prevention (CDC)

How to Prevent COVID-19, continued

Vaccinate early and boost often.

- Mixing better than single stream
- Hybrid immunity is a plus, but do not intentionally contract COVID-19

Pfizer-BioNTech[1]	Pfizer-BioNTech[1]	Moderna[1]	Johnson & Johnson's Janssen[1,2]
Ages Recommended 5–11 years old	**Ages Recommended** 12+ years old	**Ages Recommended** 18+ years old	**Ages Recommended** 18+ years old
Primary Series 2 doses[3] Given 3 weeks apart [4]	**Primary Series** 2 doses [3] Given 3–8 weeks apart [4]	**Primary Series** 2 doses [3] Given 4–8 weeks apart [4]	**Primary Series** 1 dose [3]
Fully Vaccinated 2 weeks after final dose in primary series	**Fully Vaccinated** 2 weeks after final dose in primary series	**Fully Vaccinated** 2 weeks after final dose in primary series	**Fully Vaccinated** 2 weeks after 1st dose
Booster Dose Not recommended at this time	**Booster Dose** Everyone ages 12+ years should get a booster dose at least 5[3] months after the last dose in their primary	**Booster Dose** Everyone ages 18+ years should get a booster dose of either Pfizer-BioNTech or Moderna (mRNA	**Booster Dose** Everyone ages 18+ years should get a booster dose of either Pfizer-BioNTech or Moderna (mRNA

Source: Coronavirus Disease 2019 (COVID-19) | Centers for Disease Control and Prevention (CDC)

Pharmaceutical Strategies to Prevent COVID-19

Evushield (Tixagevimab/Cilgavimab)

Combo monoclonal Ab single injection designed to kill COVID-19 before it can cause symptoms or progress to severe disease.

In the PROVENT randomized, controlled trial 5172 patients (~3% immunocompromised, majority under 60 years) received either 150mg of tixagevimab and 150mg of cilgavimab or placebo in 2:1 ratio.

Over a median follow-up of 83 days, a 77% (95% CI 46 to 90%) reduction in incidence of symptomatic Covid-19 was detected. One patient in placebo arm had progression to severe disease. No patients in tixagevimab-cilgavimab arm developed severe illness. No clinical data is yet available in an immunocompromised population.

On the basis of these data, the **FDA authorized tixagevimab-cilgavimab in December 2021.**

How to Intervene Early in the COVID-19 Disease Course

Five Evidence-based, National Institutes of Health (NIH) approved options:

1. **Paxlovid**
    - Nirmatrelvir co-packaged with ritonavir (Paxlovid).

Taken **orally twice daily for five days** nirmatrelvir-ritonavir was found in EPIC-HR trial to reduce risk of hospitalization and death by 89%. No deaths occurred in nirmatrelvir arm and 13 in placebo arm. Treatment must be started during first five days of symptoms. Important drug-drug interactions need to be considered and not appropriate for patients with stage IV kidney disease. Expected to be fully active against all known variants.

Available via Emergency Use Authorization only.

How to Intervene Early in the COVID-19 Disease Course

Five Evidence-based, NIH approved options:

2. Remdesivir

- Remdesivir

Given as a **daily IV infusion for three successive days**, remdesivir was found in PINETREE trial to reduce risk of hospitalization and death by 87%. No deaths occurred in either study arm. Treatment should be started as early as possible and must be given during first seven days of symptoms. Expected to be fully active against all known variants.

Formal U.S. Food & Drug Administration (FDA) approval.

How to Intervene Early in the COVID-19 Disease Course

Five Evidence-based, NIH recommended options:

3. Bebtelovimab

- Bebtelovimab

Given as a **single IV injection** the monoclonal antibody bebtelovimab was found to have similar improvement in viral load and symptom resolution as other monoclonal antibodies in Phase II BLAZE-4 trial (unpublished). No data yet available on impact on risk of hospitalization or death. Bebtelovimab retains full neutralizing activity against all key SARS-CoV2 variants including Omicron BA.1.1 and BA.2. Treatment should be started as early as possible and must be given during first seven days of symptoms.

Available via Emergency Use Authorization only.

How to Intervene Early in the COVID-19 Disease Course

Five Evidence-based, NIH recommended options:

4. Sotrovimab

- Sotrovimab

Given as a **single IV infusion** the monoclonal antibody sotrovimab was found in COMET-ICE trial to reduce risk of hospitalization and death by 85%. No deaths occurred in sotrovimab arm and two in placebo arm. Treatment should be started as early as possible and must be given during first seven days of symptoms.

Available via Emergency Use Authorization only.

How to Intervene Early in the COVID-19 Disease Course

Five Evidence-based, NIH recommended options:

5. Molnupiravir

- Molnupiravir

Taken **orally twice daily for five days** molnupiravir was found in the MOVe-OUT trial to reduce risk of hospitalization and death by 30%. One death occurred in molnupiravir arm and nine in placebo arm. FDA determined that low risk for genotoxicity but should not be used in pregnancy and males recommended to use contraception for three months. Treatment must be started during first five days of symptoms.

Available via Emergency Use Authorization only.

How to Intervene Early in the COVID-19 Disease Course

Non Evidence-based options:

- Hydrochloroquine: Dangerous, ineffective, malpractice
- Ivermectin: Ineffective, malpractice
- Artemisinin: Ineffective, malpractice
- Dexamethasone: Limited utility in Chronic obstructive pulmonary disease (COPD) and asthmatics, not widely recommended

Source: Fact check: Effective (and ineffective) COVID-19 treatments | DW | 20.01.2021

What Happens When You Present to the ED with COVID-19?

Worried well: no tests, discharge home,

- COVID-19 positive with no signs of co-infection, increased work of breathing or significant hypoxia.

Respiratory work-up: CXR without labs, discharge home, +/- antibiotics and steroids

- COVID-19 positive with chronic lung disease and wheezing, productive cough, or labored breathing without significant hypoxia

Mega work-up: CXR, CBC, BMP, Crp, Lactate, Troponin, Ddimer, PT/INR, Procalcitonin. Likely admit, but home discharge possible if ED tune-up successful

- COVID-19 positive with hypoxia <85%, increased work of breathing and/or abnormal VS

COVID Crash: Same as mega-workup. ICU admit, intubation, high-flo nasal cannula or non-rebreather O2 depending on symptom severity

- COVID-19 positive with acute respiratory distress or shock vitals

COVID Comfort: Minimal work-up. Floor admission or back to hospice if appropriate. Pain control and O2.

- COVID-19 positive with DNR/DNI or hospice, respiratory distress and/or shock vitals, and poor prognosis

Why Did the ED Discharge My Patient with COVID-19 Back to LTC?

Successful tune-up.

- ED cares significantly improved acute symptoms.

Too early. Sick but not sick enough for hospital cares.

- COVID crash comes around day 10 of illness.

Infection risk from hospitalization

- Hospital acquired infections are real…if they are a no O2 requirement, justified risk of hospitalization for nursing cares is debatable.

Capacity and Crisis Standards of Care

- COVID survival is dependent on availability of hospital capacity. During surges, when capacity is strained, standards for admission need to adapt to care for the cohort of patients that (a) truly requires hospital cares and (b) has the highest likelihood of survival and meaningful quality of life.

Questions

Quality Improvement Organizations
Sharing Knowledge. Improving Health Care.
CENTERS FOR MEDICARE & MEDICAID SERVICES

SUPERIOR HEALTH
Quality Alliance

This material was prepared by the Superior Health Quality Alliance, a Quality Innovation Network-Quality Improvement Organization under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS.
12SOW-MI/MN/WI-NH-22-52 041122