MAGIC
Minnesota Association of Geriatrics Inspired Clinicians

Provider Treatment *Considerations* of COVID-19 Management in Congregate Living
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This document can guide providers with decision making in the management of COVID-19. It outlines treatment considerations based on patients' goals of care. Treatment guidelines for COVID-19 are evolving rapidly because of ongoing research, and management of individual cases is subject to professional judgement within our patient population and care settings. Providers should also follow guidance from their own provider group or hospital-system. For updated treatment considerations, please visit the resource section of this document (specifically NIH and ASHP).

Upon suspected or confirmed COVID diagnosis, Providers will address goals of care specific to COVID and review treatment preferences. Patients will fall into one of three categories but may change categories if goals of care change.

Hospitalization desired for COVID if indicated	Do not hospitalize, but desires to treat in place	Do not hospitalize, comfort-focus only

• This includes **full code** and **DNR/DNI/Selective treatment including hospitalization desired**
• Hospitalization may be indicated with hypoxia or other symptoms (listed below) to receive additional hospital-level treatments
• Consider Monoclonal Antibody treatment at the facility if available
	• This includes patients who do not want hospitalization, but desire treatment in place
	• Treatment options to consider:
	  • Monoclonal Antibody
	  • Steroid and/or prophylactic anticoagulation with oxygen therapy
	• If declining despite treatment, transition to comfort cares
		• This includes patients who are on hospice, hospice-eligible, or patients who want to focus on comfort measures only while avoiding hospitalizations.
		• Treatment includes medications for symptom management and comfort measures
		• Emotional and spiritual care

General Considerations for all COVID Patients	

Initial Diagnosis Standards of Care	• Address goals of care
	  ○ Discussion guide from Respecting Choices: Proactive Care Planning for COVID-19
	• Ensure family is notified by facility staff or provider, and establish a communication plan to keep family/POA updated on a regular basis and with any decline in status
	• Facility to initiate isolation precautions
	• Consider goals of care, current status, risk for severe COVID, and comorbidities.
	  ○ Risk factors for severe disease: COPD, CHF, DM, BMI >30, CAD, CKD, Cancer, advanced age, and frailty
	• Consider hospitalization potential, when consistent with goals of care at diagnosis, and ongoing, as condition can evolve and worsen rapidly (see detail below)
	• Consider increased provider visits (in-person or telehealth) and more frequent nursing updates

	• Review the medication list to hold or discontinue non-essential medications to reduce the frequency of nursing contact and exposure • Consider the facility's ability to monitor and provide care to the Covid patient. If the patient is prone to wandering, or facility is unable to provide increased services if necessary, consider admission to COVID Skilled Nursing Facility (SNF) if available.
Symptomatic Treatment	• Acetaminophen for pain/fever (preferred over NSAID) • Antiemetic for nausea • Loperamide for diarrhea • Cough suppressant for cough • Bronchodilator inhaler as needed

Nursing Management Orders	• Increased monitoring of VS (oxygen is often initial VS to decompensate)
	  ○ For example- temp and O2 q shift, full VS daily
	  ○ Add BP monitoring (daily or other), for patient on BP meds, if not routine
	  ○ Consider patient clinical status and staff availability/exposure
	• Increased frequency of nursing assessments
	• Provide nursing with specific criteria of when to notify the provider, which may include but are not limited to: hypoxia or decline from baseline O2 sats, shortness of breath, altered mental status, lethargy, poor intake, GI symptoms, unstable VS, general decline
	• Minimize non-essential staff tasks and patient orders
	• Consider orders to offer liquids frequently (i.e.- q 2 hours). If sleeping for prolonged periods, wake to offer liquids or solids.
	• Position changes, including proning which has documented benefits for COVID-19
	  ○ Initiate position changes q 2 hours
	  ○ Elevate head of bed for comfort with respiratory symptoms PRN
	  ○ Proning/Repositioning as patient is able
	  ▪ MAGIC Link: Repositioning and Proning for Patients with COVID-19

Chronic Disease Management	• Aerosol-Generating Procedures:
	  ○ If on nebulizer: Hold/discontinue nebulizer administration, order inhaler instead (order with spacer and could add facemask for administration if needed)
	  ○ If on CPAP: Add a viral filter to the CPAP machine or discontinue use if able
	• If on warfarin: Check INR within a few days of COVID diagnosis, consider close monitoring especially those with more symptomatic COVID
	• If on insulin/DM meds: Hold or decrease insulin or sulfonylurea if poor intake with risk of hypoglycemia. Consider holding Metformin with poor intake due to risk of kidney injury.
	• If on diuretic: Hold diuretic during active emesis and consider during poor intake
	• If on HTN medication: Hold BP med(s) for hypotension

Complementary Immune Support	• Vitamin C, Zinc (8-11mg), and/or Vitamin D if desired by the patient or family for low-risk treatment. Evidence remains scarce, but this may provide comfort. Consider nursing burden and exposure also.

Considerations for Hospital Care or Treatment	
Goals of Care	• Hospitalization should be considered on patients who are full code, or DNR/DNI with selective treatment that includes hospitalization • The provider will consider other factors (and discuss with patient/POA) such as hospital capacity, availability of desired hospital treatments, current status, and risk for severe disease when considering hospitalization

Hospital Care	• Consider hospitalization in patients with the following:
	  ○ **Hypoxia**; increased oxygen requirement from baseline (see next section)
	  ○ Increased respiratory effort or persistent shortness of breath

	○ Dehydration, poor intake, poor output ○ Hypotension, dizziness, unstable VS ○ Altered mental status, decreased level of consciousness ○ Wanting aggressive treatment with worsening status
Hospital Treatment	• Providers should review up to date guidance on evolving treatment benefits and options (see resources below) • Possible hospital-level treatments: ○ Antiviral Therapy: Remdesivir for severe COVID-19. Eligibility criteria may include timing (within 10 days of symptom onset), hypoxia at rest, renal or liver functions requirements, or imaging results. Verify eligibility with hospital before transfer, if remdesivir is a primary reason for considering hospital transfer. ○ Convalescent Plasma: Efficacy unproven, consider for patients presenting within 3 days of symptom onset and ideally as part of a clinical trial ○ Higher ventilatory support than supplemental oxygen: high flow heated oxygen, BiPAP, CPAP, ventilator ○ Prophylactic anticoagulation ○ Steroids with hypoxia

Treatment of Hypoxia **Hypoxia is an important decision point that can affect the course of treatment depending on goals of care**	
Full Code, DNR/DNI with Selective Treatment	• Consider hospitalization with hypoxia ○ When become hypoxic, the patient would likely meet criteria to get treatments that are only available in the hospital (Remdesivir, Convalescent Plasma)
DNR/DNI, Treat in place	• Initiate supplemental oxygen • Consider steroid treatment • Consider prophylactic anticoagulation
Comfort focus	• Initiate supplemental oxygen • Initiate comfort medications
Supplemental Oxygen	• Initiate or titrate supplemental oxygen ○ Identify goal SaO2 and when nursing should notify the provider with changes in O2 requirements or respiratory symptoms. Consider implications of CO2 retention. • Nursing should attempt to wean (or return to chronic flow) when symptoms improving

Considerations for Treatment in Place	
Goals of Care	• The following applies to patients who desire treatment and care at the facility, who are: ○ Full code ○ DNR/DNI with selective treatment ○ DNR/DNI, do not hospitalize, treat in place
Monoclonal Antibody Treatment	• May consider for patients who desire treatment and have mild to moderate symptoms, who are at high risk of progressing to severe disease and/or hospitalization. • Complete a risk/benefit discussion. Monoclonal Antibody treatments have Emergency Use Authorization (EUA), and not full FDA approval. Safety and efficacy have not been established. • Elibility for Monoclonal Antibody Treatment ○ All patients 65 and older. Those under 65 with identified comorbidities. ○ Must not be hospitalized due to COVID-19 or require oxygen therapy due to COVID-19 ○ Patients who are terminally ill with life-expectancy under 6 months are only eligible if the Monoclonal Antibody Treatment is in sufficient supply

	▪ MDH Screening Tool for Monoclonal Antibody Treatment • Monoclonal Antibody Treatment: o Bamlanivimab 700 mg as a single infusion in a healthcare setting. o Administration should be as soon as possible after positive result, and within 10 days of symptom onset o Covered by Medicare • Mechanism of action: Binds to the receptor binding domain of the spike protein of SARS-CoV-2, blocking the spike protein's attachment to the human ACE2 receptor • Patients should be treated in a facility staffed and equipped to manage anaphylaxis and they should be monitored for hypersensitivity reactions during administration of the drug and for at least 1 hour after completion of the infusion. • Fact Sheet for Health Care Providers Emergency Use Authorization of Bamlanivimab • Ensure the patient or family receives the "Fact Sheet for Patients, Parents and Caregivers" • Coram: CVS Specialty Infusion Services is available to provide the infusion in facilities o Provider to call (866) 316-0264 during business hours to initiate referral. If the initial intake screening criteria are met, the Provider will fax the fax cover sheet (provided by Coram) and other required documentation to confirm the patient meets clinical criteria. Pharmacy staff will then coordinate with the local Coram pharmacy to dispense and coordinate nursing.
Goals of Care:	• The following applies to patients who desire treatment and care at the facility, who are: o DNR/DNI, do not hospitalize, treat in place • Patients who are full code or DNR/DNI with selective treatment (including hospitalization) would most likely receive the following treatment at the hospital, because the criteria to consider prophylactic anticoagulation and steroid treatment are (in many cases) the same criteria to receive hospital level care.
Steroid Treatment	• Consider for patients who require new or increased supplemental oxygen o Do not use in patients who do not require supplemental oxygen, there is no proven benefit, and it may cause potential harm • Considering Dexamethasone vs Prednisone o Dexamethasone: The steroid that was studied in the RECOVERY trial for steroid treatment in COVID-19. ▪ Dexamethasone is a moderate cytochrome P450 (CYP) 3A4 inducer. A medication review should be completed to assess for potential interactions. o Prednisone: can be considered in frail elderly due to less drug interactions. Also has less penetration of the blood brain barrier and shorter duration of action, which may be associated with lower risk of delirium. o See NIH guidelines listed in the resource section for additional information • Medication Options—treatment duration typically 10 days o Dexamethasone 6 mg daily o Prednisone 40 mg daily o May discontinue prior to 10 days if patient returns to baseline and no longer requires new or additional oxygen o Administer in the morning with food. Monitor blood sugar as clinically indicated. Nursing to notify provider for delirium or altered mental status. • See treatment guidelines listed in the resource section for additional information • Prior to glucocorticoid administration it is reasonable for patients from areas where Strongyloides is endemic (ie: tropical and subtropical regions) to receive pre-emptive treatment with Ivermectin. Up to Date Resource: Strongyloidiasis
Prophylactic Anticoagulation	• There is a lack of guidance or evidence regarding anticoagulation with COVID-19 in our population, including those who meet criteria for hospitalization but who opt for

	treatment in place. Consider standards of practice for your own group or hospital-system.
	• Criteria of when to consider prophylactic anticoagulation (examples):
	  ○ Symptomatic patients who desire treatment in place, who are at high risk for VTE
	  ▪ Consider based on the same protocols and risk-benefit analysis as for patients without COVID
	  ○ IMPROVE VTE score (not COVID specific), or other VTE risk scoring tool
	• Contraindications: High bleeding risk (ie: IMPROVE Bleeding Risk score) or low platelets
	• Medication Options—treatment duration is not well defined; consider risk factors, severity of symptoms, and individual organization standards
	  ○ Lovenox 40 mg QD; Lovenox 40 mg BID (BMI >40); Lovenox 30 mg QD (CrCl <30)
	  ○ DOAC prophylactic dosage: Apixaban (Eliquis) 2.5 mg PO BID, or Rivaroxaban (Xarelto) 10 mg PO daily.
	  ▪ Use with caution when CrCl <30ml/min (limited data). Avoid Rivaroxaban when CrCl <15ml/min. Use actual body weight when calculating CrCl.
	  ○ May consider Aspirin if high risk for VTE and other anticoagulation therapy is contraindicated, although this lacks evidence or guidance; use clinical judgement
	• Resources
	  ○ AMDA Resource: Anticoagulation of Patients with COVID-19 in PALTC
	  ○ IMPROVE Resource: VTE risk and bleeding risk calculators
	• See treatment guidelines listed in the resource section for additional information

IV Hydration	• Gentle IV fluids in the facility, if appropriate and able to administer

Labs or Imaging	• Labs at the facility may be considered on case-by-case basis depending on patient condition, comorbidities, course, goals of care, availability of lab or imaging, and whether it will change treatment. Examples include:
	  ○ CBC: evaluating for bacterial infection
	  ○ BMP: COVID-19 can cause AKI; also, at risk for hypernatremia and hypovolemia with decreased oral intake
	  ○ BNP: monitoring of heart failure as comorbidity or differential diagnoses workup
	  ○ CRP, D-Dimer: elevated markers can be associated with more severe disease, but not clearly predictive or well-studied, and no specific guidance on monitoring in congregate living settings
	  ○ Procalcitonin: can be elevated in bacterial infection or in non-specific systemic inflammation
	• Indication for CXR is when there is suspicion for a coinfection
	  ○ Current data indicate that bacterial coinfections with SARS-CoV-2 infection are relatively infrequent (likely occurring in <10% of hospitalized COVID-19 patients). The literature does not support routine use of empiric antibiotics in the management of confirmed COVID-19 infection. IDSA Resource: Co-Infection and Antimicrobial Stewardship
	  ○ Can consider secondary bacterial infection with return of fever after initial improvement, elevated WBC, or lobar infiltrate on XR

Considerations for Comfort-Focus Care	
Goals of Care	• Treatment for patients with comfort-focus would likely not include monoclonal antibodies or prophylactic anticoagulation. Steroid therapy could be considered based on symptoms. • Care includes medications, oxygen, and nursing interventions (ie: positioning) that focus on comfort
Comfort Medications	• Consider pre-ordering small quantities of comfort medications on patients who would be likely to decompensate quickly, to have readily available

	• Comfort medications:
	  ○ Pain or dyspnea: Morphine, Roxanol, Hydromorphone, Oxycodone
	  ○ Anxiety: Lorazepam, Terminal Agitation: Haloperidol
	  ○ Copious Secretions: Scopolamine patch, Glycopyrrolate, Atropine
	  ○ Oxygen titration based on symptoms (not oxygen saturation) up to 6L
	• Resources
	  ○ MAGIC & MNHPC Resource: Acute Symptom Management
	  ○ CAPC Resource: Protocol for Crisis Symptom Management

COVID-19 Resources	
American Society of Health-System Pharmacists [ASHP]	Treatment & Supportive Care: https://www.ashp.org/COVID-19/Treatment-and-Supportive-Care?loginreturnUrl=SSOCheckOnly Specifically, the **Assessment of Evidence for COVID-19 Related Treatments** provides up to date valuable information regarding treatments
National Institutes of Health: COVID-19 Treatment Guidelines	https://www.covid19treatmentguidelines.nih.gov/whats-new/
Respecting Choices: Proactive Care Planning for COVID-19	https://respectingchoices.org/wp-content/uploads/2020/04/Proactive_Care_Planning_Conversation_with_HC_Agents_for_COVID-19_4-14-20.pdf Respecting Choices-Advanced Care Planni
Sanford Guide: COVID-19	https://webedition.sanfordguide.com/en/sanford-guide-online/disease-clinical-condition/coronavirus

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