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Policy Recommendations regarding Skilled Nursing Facility Management of COVID-19: Lessons From New York State

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Title - Policy Recommendations regarding Skilled Nursing Facility Management of COVID-19: Lessons From New York State

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Brief summary –

We describe a comprehensive policy approach to managing COVID-19 in the Skilled Nursing Facility setting including issues related to staff, patients, communication, and infection control.

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1 Policy Recommendations regarding Skilled Nursing Facility Management of COVID-19: Lessons
2 From New York State

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ABSTRACT

5 To provide policy recommendations for managing COVID-19 in Skilled Nursing Facilities
6 (SNFs), a group of certified medical directors from several facilities in New York state with
7 experience managing the disease used email, phone, and video conferencing to develop
8 consensus recommendations. The resulting document provides recommendations on
9 screening, and protection of staff, screening of residents, management of COVID-19 positive
10 and presumed positive cases, communication during an outbreak, management of admissions
11 and readmissions, and providing emotional support for staff. These consensus guidelines have
12 been endorsed by the Executive Board of the New York Medical Directors Association and the
13 Board of the Metropolitan Area Geriatrics Society.

14

15 COVID-19 has rapidly affected the health care systems in New York. The impact of this
16 pandemic has been widely recognized in hospital systems but guidelines for care for this
17 disease in the Skilled Nursing Facility (SNF) are sorely lacking.

18 One of the biggest challenges we have faced in SNFs is the transmission by
19 asymptomatic carriers and patients. As a result, COVID-19 can insidiously spread prior to
20 awareness of the first case, which leads to rapid spread within the facility.¹ Many older adults
21 manifest COVID-19 with low grade temperatures, diarrhea or fatigue, and may not have overt
22 respiratory symptoms – causing rapid spread without detection.

23 We describe expert consensus policies for SNFs to prepare for and manage COVID-19.

24 METHODS

25 The consensus statements presented here have been formulated by the authors who
26 had experience with outbreaks of COVID-19 as the SNF community needed to rapidly adapt to
27 the dynamic changes which occurred in these healthcare facilities during this unprecedented
28 pandemic. The authors are actively working Certified Medical Directors, are Board Members of
29 the New York Medical Directors Association (NYMDA) and serve as Medical Directors or
30 Rochelle & Rochester). The guidelines included in this paper are based on current knowledge at
31 the time of manuscript transmission (May 22, 2020) and may change over time – especially
32 regarding medication management and laboratory testing. Literature review through PubMed
33 was conducted and review of studies at ClinicalTrials.gov.

34 Our suggestions should not take precedence over local Department of Health (DOH) or
35 Centers for Disease Control (CDC) recommendations. It is imperative to recognize that

36 recommendations regarding COVID-19 are frequently evolving and providers and facilities
37 should adapt accordingly.

38

39

RECOMMENDATIONS:

40

Measures Regarding Staff

41

- Screen all employees when reporting for duty for fever, symptoms of respiratory illness,
42 and other COVID-19 symptoms. Do not let anyone enter if they have fever or symptoms
43 of COVID-19. Screener should be wearing a surgical mask.

44

- If your community might participate in contact tracing, then a written sign-in log should
45 be maintained for anyone who enters the facility.

46

- Provide a face mask daily to each staff member to be worn at all times while in the
47 facility. This mask should be available at the front entrance, prior to contact with the
48 screener. The screener should be stationed at least 6 feet away from the area of those
49 entering the facility.

50

- Periodic point-prevalence COVID-19 testing of staff should be conducted based on
51 regional prevalence only if:

52

- Utilized on staff not previously diagnosed with COVID by PCR or antibody testing,

53

- Conducted on a serial basis with a series of at least 3 rounds of testing 1 week

54

apart to allow for newly infected staff to convert, and

55

- Point of care technology is utilized so to avoid the trauma of repeated

56

nasopharyngeal swabbing and to ensure quicker results, and

57

- There is a plan in place to manage potential staffing shortfall.

- 58 • Staff should have a place to eat meals that allows them to practice appropriate social
59 distancing while eating without masks.
- 60 • Usage of locker rooms should follow social distancing guidelines while protecting
61 employees' rights.
- 62 • *Note: The following are mandatory once COVID-19 is known to be in the facility, are
63 strongly recommended if COVID-19 is becoming prevalent in your community, and
64 should be strongly considered if equipment is available regardless of local COVID-19
65 prevalence.*
- 66 ○ Provide N95 (or similar mask) to clinical staff to be worn during direct patient
67 care and to cleaning crew and others when in patient areas.
- 68 ○ Provide eye-shields to all clinical staff to be worn during direct patient care and
69 to cleaning crew and others in patient areas. This practice is becoming more
70 common in both COVID positive and COVID negative areas as it is becoming clear
71 that the main way to prevent spread is with aggressive PPE use.
- 72 ○ Assign staff (including PT/OT) to particular units when possible. This will lead to
73 easier contact tracing in the event of positive COVID cases in the facility. It also
74 limits spread to other units if a staff member is positive but asymptomatic.

75

76 Screening Measures for Residents/Patients

77

- 78 • Screen all residents for COVID symptoms along with measurements of temperature and
79 pulse oximetry at least twice daily. The facility medical director should set criteria for a
80 positive screen.

- 81 • The SNF should be prioritized for rapid, point of care testing as it is the best way to
82 manage the epidemic in real time. Until this is available, facilities should be provided
83 with a sufficient supply of test kits for PCR testing to meet diagnostic needs of the
84 facility on an ongoing basis with access to a laboratory that can provide results of PCR
85 testing within 24 hours.
- 86 • Periodic point-prevalence COVID-19 testing should be conducted based on regional
87 prevalence only if:
- 88 ○ Utilized on residents not previously diagnosed with COVID by PCR or antibody
89 testing or clinical criteria,
 - 90 ○ Conducted on a serial basis with a series of at least 3 rounds of testing 1 week
91 apart to allow for newly infected residents to convert, and
 - 92 ○ There is a plan to cohort residents who test positive.
- 93 • Avoid group activities (such as recreational activities and physical and occupational
94 therapy) that do not allow for the maintenance of 6 feet social distancing. Notably, it is
95 often difficult for ambulatory residents with dementia to follow social distancing rules.
- 96 • Since COVID-19 can spread prior to detection, to minimize risk of spread, convert
97 nebulizer medications to MDI and stop nasal sprays which might spread virus.
- 98 • *Note: The following are mandatory once COVID-19 is known to be in the facility, are
99 strongly recommended if COVID-19 is becoming prevalent in your community, and
100 should be strongly considered if equipment is available regardless of local COVID-19
101 prevalence.*

- 102 ○ Provide a clean face mask each day to all residents to wear throughout the day if
103 tolerated... Efforts especially should be made for COVID positive residents to
104 wear their masks when staff are in the room.
- 105 ○ Review your Rapid Response/ CPR team and strongly consider changing team to
106 only 2 staff members who have N95 and face shield. One member provides chest
107 compressions and the other provides bagging for respirations. This limits
108 exposure of health care team to COVID-19 while awaiting EMS arrival.

109 Management of COVID-19 Positive / Presumed Positive Cases

- 110 • Institute contact-droplet precautions and test for COVID-19 by PCR (if testing available)
111 for any resident who is demonstrating symptoms. Maintain precautions while awaiting
112 test results. If residents test positive, move as described below.
- 113 • Create a dedicated COVID-19 Unit and assign staff who do not work elsewhere in the
114 facility to this area. This COVID-19 Unit should receive transfers from within the facility
115 as well as new admissions/re-admissions from hospitals who are COVID-19 positive; if
116 possible such a Unit should have a separate entrance/exit or try to install temporary
117 walls or doorway at entryway.
- 118 • If not able to segregate COVID-positive patients in a separate Unit, cohort such patients
119 in one area of the affected unit and assign dedicated staff to care for them.
- 120 • In addition to the use of face shields, gowns and gloves, provide N-95 masks (or similar),
121 to staff providing direct care to COVID positive patients; use/re-use/store in accordance
122 with CDC guidelines.²

- 123 • Monitor all patients who are Positive / Suspected for COVID symptoms along with
124 measurement of temperature and pulse oximetry two or three times a day. The facility
125 medical director should set criteria for a positive screen.
- 126 • The role for routine antibody testing in the SNF is currently unclear. In the future, it may
127 be useful to assess for presence of immunity to guide room assignments. However, per
128 the Infections Diseases Society of America, antibody tests are expected to be most
129 useful as surveillance tools to estimate relative proportions of different populations that
130 have been exposed to COVID-19.³
- 131 • Review all resident's Advanced Directives with resident and/or family – including do not
132 resuscitate, do not intubate, do not hospitalize. Physicians, NPs/PAs, Social Work, and
133 nursing can contribute to the discussion. Conversations should include an explanation of
134 the limited success of mechanical ventilation in older adults with COVID-19 as well as a
135 description of the type of care which the SNF can provide while avoiding hospitalization.
- 136 • Of note, COVID positive patients can have relatively minor symptoms but then quickly
137 progress to fulminant shock and respiratory failure. This is likely due to the cytokine
138 response related to COVID 19 infection.⁴ Educate residents/families regarding this
139 possibility and that comfort-based medications can be titrated if this occurs.
- 140 • More research is needed on symptom manifestation of COVID-19 in older adults,
141 especially in the SNF, however the authors have noted several patterns: significant
142 decline in PO intake, WBC normal or low, fatigue as a primary symptom, and acute
143 kidney injury with hypernatremia or hyponatremia.

- 144 • Consistent with the resident's goals of care along with consideration of realistic goals of
145 care, manage COVID-19 positive patients and, absent testing, those presumed to be
146 COVID positive:
- 147 1. Provide anti-pyretic therapy with acetaminophen – consider PRN or standing doses.
 - 148 2. Provide supplemental Oxygen by nasal cannula if pulse ox <90% and titrate as
149 needed. Advance to venti-mask if hypoxia not improved.
 - 150 3. Discontinue (or hold for 2-3 weeks) any non-essential medications such as MVI,
151 calcium, vitamin D. Consider changing medications such as artificial tears and allergy
152 medications to PRN. This reduces pill burden for the resident and reduces nursing
153 administration time.
 - 154 4. Discontinue nebulizers (can change to MDI) and discontinue medications
155 administered by nasal spray as these medications might spread virus.
 - 156 5. Published data shows that COVID-19 is pro-coagulant.⁵ Additionally, patients with
157 COVID-19 in the SNF are generally spending more time in bed or chair and are at
158 increased risk of DVT from decreased mobility. Consider prophylactic
159 anticoagulation therapy with heparin SQ or enoxaparin SQ for 2 weeks or longer
160 (depending on course of COVID-19 and level of mobility). Some practitioners are
161 measuring d-dimer levels and determining anti-coagulation based on current clinical
162 guidelines and a patient's specific clinical condition. If patient is already on
163 anticoagulation, additional DVT prophylaxis is not needed. Individual considerations
164 including fall risk, bleeding risk, and concurrent use of anti-platelet medications
165 must be factored into decisions about anti-coagulation.
 - 166 6. Consider antibiotics if concern for bacterial pneumonia.

- 167 7. Consider h2 blocker if resident is on an alternative treatment for Gastroesophageal
168 Reflux Disease as there are studies underway for famotidine as treatment for COVID-
169 19 and famotidine is a known treatment for gastric reflux so this is not off-label or
170 experimental.⁶
- 171 8. Decisions regarding checking labs (CBC, ESR, CMP, C-Reactive Protein, Ferritin and D-
172 Dimer levels) or Chest X-ray should be made based on access to lab testing/imaging,
173 consideration of risk exposure to residents and staff, and consideration of whether it
174 will change management.
- 175 9. Decisions regarding use of intravenous fluids should be made with consideration of
176 realistic goals of care and other resident comorbidities. Intravenous fluids can
177 worsen dyspnea and/or edema, especially in acute illness and at end-of-life.
- 178 10. Manage end-of-life symptoms on-site with palliative approaches – tailored to each
179 patient based on comorbidities, renal function, liver function, prior or current opioid
180 use, age, weight and symptom burden. Consider starting as PRN doses and transition
181 standing doses with PRN in between - recognizing that a COVID-19 patient's
182 symptoms can quickly worsen.
- 183 a. Parenteral concentrated opioids for pain and/or dyspnea
- 184 i. morphine 20mg/ml, consider start at 2.5mg or 5mg PO/SL q4-6
185 hours– avoid repeated morphine doses if CrCl <30
- 186 ii. oxycodone 20mg/ml, consider start at 2.5mg or 5mg PO/SL q4-6
187 hours
- 188 iii. higher doses may be appropriate for higher symptom burden and
189 non-opioid naïve patients

- 211 i. At least 3 days (72 hours) have passed since recovery, defined as
212 resolution of fever (greater than or equal to 100.0) without the use of
213 fever-reducing medications **AND**
- 214 ii. Improvement in respiratory symptoms (e.g., cough, shortness of
215 breath) **AND**
- 216 iii. At least 14 days have passed since symptoms attributed to COVID-19
217 first appeared (or first positive test if asymptomatic)
- 218 o Test-based strategy:
- 219 ▪ Lack of fever (greater than and equal to 100.0), without fever
220 reducing medications; **AND**
- 221 ▪ Improvement in respiratory symptoms (e.g., cough, shortness of
222 breath) **AND**
- 223 ▪ Negative results from at least two consecutive COVID-19 molecular
224 assays at least 24 hours or greater apart.
- 225 ▪ Note: for asymptomatic patients, testing may begin a minimum of 7
226 days from the first positive test

227 ***Note:** Based on observed failures of the non-test based strategy (recurrent illness
228 and/or positive molecular assays after discontinuation of transmission based
229 precautions), the majority of the authors have adopted a combination approach in
230 which the benchmarks of the non-test based strategy are achieved and then the test-
231 based strategy is used to confirm the discontinuation of transmission based precautions.

- 232 • Specialty Units (On-site Hemodialysis and On-site Ventilator Units)

- 233 ○ Fit test staff on ventilator/respiratory units for N95s pre-emptively given the patient
234 population and higher possibility of aerosilization of the virus on these units
- 235 ○ Encourage use of face shields on these units regardless of COVID status
- 236 ○ On-site Hemodialysis (HD):
- 237 ▪ Consider creating a “late shift” for hemodialysis for COVID-19 patients to
238 allow for additional disinfecting prior to the next day dialysis sessions.
- 239 ○ On-site Ventilator Units:
- 240 ▪ Attempt to change nebulizer medications to MDI to reduce risk of spread of
241 COVID-19.
- 242 ▪ Consider use of ambu-bags with hepa filters if possible to decrease spread of
243 virus when bagging patients

245 Communication

- 246 • Consider use of Telehealth visits for Medical consultant providers (dermatology,
247 podiatry, etc.) for use when necessary with proper cleaning of this equipment.
- 248 • Arrange for Video or Window Visits between residents and families.
- 249 • Provide regular updates on the status of COVID-19 in the facility to staff. This can be
250 though written, email or video updates, and can improve morale. ⁷
- 251 • Develop ID cards with prominent photo of staff with name and title, to help residents
252 identify caregivers who are wearing PPE obscuring the face.
- 253 • Develop a color coding system for doors regarding COVID-19 status to remind staff to
254 use appropriate PPE.

- 255 • Provide in-service to staff regarding proper use of PPE and hand washing, and post signs
256 as reminders.
- 257 • Recognize that many older adults have hearing impairment. Many will have difficulty
258 understanding health care providers wearing masks which muffles sound as well as
259 eliminates ability to lip read. Consider basic communication boards in each room to ask
260 residents questions in writing.
- 261 • The facility should develop a protocol to notify other patients and families residing in
262 that facility regarding COVID status per local Department of Health regulations. Possible
263 ways to achieve this include updating the facility website daily to inform families or
264 utilizing a robo-call system.
- 265 • Inform residents directly (if cognitively aware) and family members/designated
266 representatives about diagnosis of COVID-19. Share your treatment plan and discuss
267 advance directives.
- 268 • Plan for a memorial / remembrance service following social distancing guidelines when
269 acute management of the crisis has resolved sufficiently to allow for reflection and
270 shared condolences.

271 Admissions / Re-admissions

- 272 • The authors do not support the mandatory admission of COVID-19 patients from
273 hospitals to Nursing Homes as it may force unprepared facilities to provide care to
274 COVID patients without the necessary resources or precautions.
- 275 • Hospitalized patients who are known COVID-19 positive should be admitted to a “COVID
276 Positive unit”.

- 277 • If space allows, hospitalized patients who are COVID-19 negative, or were not tested,
278 can be admitted to a “transition” unit for 14 days while they are monitored for
279 symptoms of COVID-19 and tested if indicated (and available).

280 Additional supportive measures for staff and residents:

- 281 • Unlike hospital staff who generally care for patients for short periods of time, the SNF
282 staff care for SNF residents often for many years. This strong connection can make the
283 death of SNF residents even more devastating. Emotional support should be provided to
284 staff as they grieve loss of residents.
- 285 • Cheerful drawings and messages from the community can be uplifting to SNF workers
286 and patients. They can be posted in hallways and distributed to residents.
- 287 • Many hospitals are touting their “success” stories as patients coming off a ventilator or
288 being discharged. “Success” in the SNF, especially for long term care residents, is
289 different.
- 290 • “Success stories” for the SNF which can be acknowledged:
- 291 ○ Nurses and other staff who were sick with COVID and recovered
 - 292 ○ Staff, clinicians, and administrators who come to work despite personal risk
 - 293 ○ Residents who are recovering from COVID
 - 294 ○ Residents who went to the hospital with COVID and returned to the SNF
 - 295 ○ Residents who died from COVID in the facility after being treated with dignity
296 and comfort measures
 - 297 ○ Families who are grateful for the care their loved ones are receiving and the
298 updates provided by SNF

299

DISCUSSION:

300 Managing COVID-19 in the SNF is uniquely challenging because the SNF serves both as a
301 home and a medical facility. Additionally, the close quarters of SNFs and natural design of
302 facilities for communal and group programs likely contribute to spread of the virus. Without
303 periodic widespread testing of all employees and visitors entering the facility, it will be difficult
304 to recognize when there is COVID-19 in the facility prior to its spread. Although our guidelines
305 are limited because it represents experiences from only one state, authors represent both
306 upstate and downstate, NYS has a high rate of COVID-19 in SNFs,⁸ and there is limited data on
307 COVID in SNFs.⁹

308 Implications for Practice and Policy: Older adults have high mortality rates from COVID-
309 19¹⁰ and those in SNFs are at higher risk because of frailty, medical conditions and need for ADL
310 assistance which made them need SNF care. Research is needed into transmission patterns and
311 to patient factors impact individual outcomes. In our current situation, we must endeavor to
312 reduce spread of infections, support the SNF staff, assist our residents, and consider public
313 health policy impact in SNF.

314

315 The authors have no conflicts of interest. These consensus guidelines have been
316 endorsed by the Executive Board of the New York Medical Directors (NY Chapter of the Society
317 for Post Acute & Long Term Care Medicine) and the Board Members of the Metropolitan Area
318 Geriatrics Society (NYC/LI/Westchester Chapter of the American Geriatrics Society).

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