COVID-19 Impact: Creating and Managing a COVID-19 Designated Unit

This meeting will be recorded and will be available at www.fmda.org/journalclub.php
FMDA Journal Club

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COVID Impact: Creating and Managing a COVID-19 Designated Unit
Should you open COVID-19 UNIT?
Is there a NEED for a COVID-19 Unit?

• MorseLife Health System:
  • 310 bed SNF
  • 52 bed Memory Care ALF
  • 150 unit ALF
  • 180 unit ILF
  • PACE program with 700 clients

OVER 1,400 clients under our direct care!
Is there a need for a COVID-19 Unit?

Community factors:

- What is the percent positive in your community?
- Which direction are cases trending?
- What is the capacity of the local hospitals?
- Is there a designated COVID-19 facility in close proximity?
Can You Open a COVID-19 Unit?

Facility factors:

• Do you have the physical layout /location in your building to create an isolated unit?
• What are the Facility resources - staff, money?
• What is your PPE inventory, burn rate and supply line?
• What is your liability exposure?
• What is the PR exposure?
A Brief History of Our Unit

INITIALLY: “HOTZONE”

• GOAL: ONLY admit asymptomatic COVID-19 MorseLife clients
• 13 bed unit
• Limited tests were available to facility & in the community
• PACE clients (no prior COVID test) from the community were admitted to the Unit to be quarantined for 14 days
  • Unique opportunity to review or processes/procedures

• DISCHARGE CRITERIA: transferred to regular SNF floor after 14 days
A Brief History of Our Unit

OUR FIRST POSITIVE SNF PATIENT:

• Early May we had our first pt test positive in SNF
• Once we had a positive COVID-19 patient we had to stop all PACE admissions
A Brief History of Our Unit

COVID+ UNIT:
• GOAL: ONLY asymptomatic COVID-19 MorseLife clients
• Increased testing availability in SNF and community
• 20-30% occupancy

• DISCHARGE CRITERIA: 2 negative tests >24h apart
A Brief History of Our Unit

COVID+ UNIT “Lite”:
• GOAL: 1) Admit Stable Asymptomatic COVID-19 MorseLife clients
  2) Admit stable COVID-19 non-ML clients with one neg test
• Increased testing availability in SNF and community
• Pts could not be d/c from hospital because they needed 2 neg tests
• Back up of pts in the hospital

• **DISCHARGE CRITERIA:** 2 negative tests >24h apart
A Brief History of Our Unit

COVID+ UNIT “Full”:

• GOAL: 1) Admit Stable Asymptomatic COVID-19 MorseLife clients
  2) Admit stable COVID-19 non-ML clients with NO neg test

• Surge after 4th of July

• Significant increase in admission and back-up of pts in all local hospitals

• Worked with local hospitals – site visits/tours

• DISCHARGE CRITERIA: 2 negative tests >24h apart
Admission Criteria

• Medically stable (Hemodynamically stable)
• O2 sat ≥ or equal to 94% on RA (this was based on CDC classifying pts’ w/O2 <94% as severe and needing hospitalization)
• No wandering behavior (we kept all pts isolated in their rooms even though they were in the COVID unit)

• DISCHARGE CRITERIA: 2 negative tests >24h apart
Admission Order Set

- COVID-19 POSITIVE (U07.1):
  - transfer pt. to COVID unit on Mack1 with droplet & contact precautions
  - nursing staff to complete contact tracing
  - obtain CBC w Diff, CMP, CPK, LDH, Troponin, Ferritin, CRP
  - Add Blood Cultures if temp > 100 F
  - Procalcitonin (PCT) Level if Bacterial infection suspected
  - obtain D-Dimer
  - check baseline EKG
  - check CXR
  - monitor VS TID
  - symptom control for fever and cough with Tylenol
  - monitor for progression of sx/labs to severe COVID requiring hospital (if not DNH/Hospice) i.e. RR>30, O2 Sat <94%, HR >125bpm
  - EMPIRIC ABX:
    - consider starting Ceftx & Doxy x 5days (consider discontinue if PCT < 0.2)
Admission Order Set

• VTE Prophylaxis:
  - Start Lovenox 40 mg SQ QD (Dose adjust renal insuff/weight extremes) unless contraindication to anticoagulant OR if pt is already on other anticoagulant eg Eliquis
  - Consider therapeutic dose anticoagulant if D-Dimer > 6 x ULN.
  - cont anticoagulant for up to 45 Days (if started just for COVID Diagnosis)

** NO nebulizers to be ordered... Order MDI w Spacer
• Majority of visits were done via telemedicine
• F2F visit only if clinician felt it was necessary
• Nurse assisted with iPad/Telephone
Latest Change In TBP Discontinuation

• Mid July, CDC changed to a symptom based strategy and no longer recommended a test-based strategy

• DISCHARGE CRITERIA:
  • 10d for asx/mild/mod infection (must also have improving symptoms and >24h afebrile without antipyretic)
  • 20d for pts with severe infection / immunocompromised (must also have improving symptoms and >24h afebrile without antipyretic)
Mack 1 Unit-

- 40 bed unit and converted 13 beds into our “Hot Zone”
Critical Features

1. Space
   a. Isolated
   b. Separated
2. Areas
   a. DON
   b. DOFF
3. Proper PPE
4. Break area for staff
5. Proper ventilation
6. Competent, committed staff
7. Cleaning protocols - using EPA products for COVID-19
8. Physician/ARNP support
9. Ability to test patients/residents and staff
10. Traffic flow - people, supplies, trash
COVID-19 Personal Protective Equipment (PPE) for Healthcare Personnel

**Preferred PPE – Use**
- N95 or Higher Respirator
- Face shield or goggles
- One pair of clean, non-sterile gloves
- Isolation gown

**Acceptable Alternative PPE – Use**
- Facemask
- Face shield or goggles
- One pair of clean, non-sterile gloves
- Isolation gown

[cdc.gov/COVID19](https://www.cdc.gov/COVID19)
COVID-19 Unit Engineering Measures
• Each resident room has an individual Fan Coil Unit with a MERV 13 air filter installed, that supplies conditioned air to each individual resident room and re-circulates the air within the room.

• The air within the room DOES NOT return to the main air handler unit that supplies conditioned air to the corridors.
Resident Room HEPA Filter

• A HEPA filter is placed next to the resident’s bed
• Filters up to 3 microns and 99.5% of viruses and bacteria within the room and performs 12 air changes per hour (meeting CDC guidelines)
Corridor HEPA Filter

• A large HEPA filter is placed in the corridor to filter the air within the corridor 12 times per hour (meeting the CDC guidelines)

• Uses UV light as well as a 2 HEPA filters that filter 99.5% of bacteria and viruses up to 3 microns
Air Handler Unit HEPA Filters

- Each of the air handler units that supply air to the corridors are equipped with primary filters (MERV 13) and secondary filters (HEPA filters)
Global Plasma System

• Global Plasma System is installed in all air handler units

• Treats all conditioned air, duct work and coils with harmless and odorless plasma gas to kill 99.4% of SARS-COV-2 (COVID) within 30 minutes of contact
The EPA registered 7.8% Hydrogen Peroxide BIT™ Solution converts to iHP™ after passing through an atmospheric cold plasma arc.

iHP™ is carried throughout the mist, moving like a gas throughout the treated area.

iHP™ damages pathogenic organisms through oxidation of proteins, carbohydrates, and lipids.

This leads to cellular disruptions and/or dysfunction and allows for disinfection/decontamination in the targeted areas and large spaces.

**Atmospheric Chemistry**

**BROUGHT INDOORS**

The atmospheric cold plasma arc converts the \( \text{H}_2\text{O}_2 \) molecules into \( \text{iHP}^\text{TM} \). As one of the most powerful oxidizing agents in nature, the \( \text{iHP}^\text{TM} \) kills the pathogens achieving high efficacy and leaves behind only oxygen and humidity in treated spaces.
Lessons Learned
Further Questions
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This meeting has been recorded and will be available at [www.fmda.org/journalclub.php](http://www.fmda.org/journalclub.php)