North Sunflower Medical Center and Nursing and Rehab Covid-19 Integration Strategy

Identifying the Problem:

North Sunflower Medical Center (NSMC) is a rural critical access hospital with limited bed capacity in an underserved part of the state with no ventilator access. It serves a community with 2 nursing homes, the attached and affiliated X nursing home and the non-attached and non-affiliated Y nursing home.

NSMC and X nursing home are under the same ownership umbrella and can much more easily unify policy and resources. Further, X nursing home closed visitation and put it's staff under the same isolation policy as the NSMC, meaning they are not allowed to work at other facilities as a second job, must wear masks all day and be screened if they travel or show symptoms. The leadership at NSMC feels it has done everything reasonably possible to limit exposure and risk for X nursing home.

Y nursing home is a different entity entirely. Their patient population is heavily skewed towards psychiatric patients, and there is a high level of interaction between patients daily. NSMC is their principle referral hospital for ill patients due to proximity (the facilities are approximately 500 feet apart.) However, the lack of communication and transparency between the facilities came into clear detail in early April when 3 patients at Y nursing home developed a fever within 24 hours. Further investigation revealed that a nurse aide at Y nursing home had a second job at a long term care facility in Bolivar County and had previously cared for a patient diagnosed with COVID19. This was a clear wakeup call for our hospital leaders, we moved rapidly to respond to the danger. We began with a meeting with hospital administrators, medical directors of both facilities, and nursing home administrators, wherein we formulated an understanding of mutual

STEP 1 Identification of Resources:

The first step was to make sure each party had an adequate understanding of our total care capacity for COVID 19 patients.

NSMC: 35 total beds, of which 13 can were already capable of being used for COVID 19 patients, with the potential to add 4 more beds quickly and 5 more with effort. These are full isolation beds with dedicated nursing staff in full PPE, 3 of which are ad hoc negative pressure rooms and 10 of which are on an entire isolation ward. No ventilator availability but the capacity to put 6-8 patients on non-invasive BIPAP. All hospital staff are screened regularly with temps and questionnaires for symptoms and are required to wear masks within the building (paper surgical or cloth) and N95 masks while caring for COVID 19 patients (these are being reused for up to 1 week.)

RNR: Capacity to isolate up to 20 beds. Capacity to provide oxygen supplementation for 10 beds (which can also be isolated.) Access to facility restricted to no visitors. Limited supply of PPE.

Clarification of the problem: If an outbreak were to become widespread in Y nursing home, it could quickly overwhelm the hospital bed capacity as well as the nursing home's capacity to care for and isolate the less ill or mildly symptomatic.

Step 2 Care Plan:

First, mutual standards of isolation and employee precautions were established. NSMC asked Y nursing home to limit their exposure by following similar employee work restrictions as we have at X nursing home

(meaning workers do not “moonlight” at other facilities.) Employees wear masks in the facility and N95’s when caring for COVID patients. This did involve some sharing of PPE resources.

Second, patient flow standards were established. It was agreed that in cases of low hospital census, it would be best to keep COVID patients in our isolation unit (the 10 bed unit isolation ward.) Y nursing home patients are kept there until they have a negative test, and if they no longer meet inpatient criteria are discharged back to the nursing home. If they are negative and still have issues requiring inpatient care, they are maintained in the hospital on isolation (at this point to protect from bringing COVID 19 back to the NH.) If this unit reached more than 80% capacity, we would transfer patients requiring supplemental oxygen or less back to Y nursing home up to their 10 bed oxygen supply capacity, where they would be isolated. NSMC holds the capability to open up “reserve” isolation beds depending on overall community needs.

NSMC isolation beds serve two purposes. Those with known COVID-19 are isolated to protect the remainder of patients, but those with only presumed infection are protected from known infection via our PPE protocols. Once patients enter the NSMC isolation ward, they are separated by known and presumed cases with different nurses, and they stay on that ward until discharged (even if negative.)

Step 3 Testing protocols

A big area of concern is exposure to staff and EMS from sending patients to the NSMC ER for testing if symptomatic. Despite the proximity, they have to be transported by ambulance. Therefore a patient that is lightly symptomatic would expose many people in route to the ER and back to be tested. Considering testing has a 2-3 day turn around, and most fevers in NH patients will still be non COVID 19 related, it was agreed that it was unreasonable to admit every one of these patients for observation. Y nursing home patients with fevers will be swabbed in house and the media brought to the NSMC lab for send-off testing.

Testing is very liberal in this population due to risk: anyone with a fever, upper respiratory symptoms, and no identifiable cause of fever warrants testing. Everyone is presumed to be positive if they warrant a test. All nursing home patients are tested regardless of symptoms if admitted to the hospital and kept on reverse isolation during their stay, to prevent transmission from hospital back to NH.

Lessons Learned

Ideally we should have had this conversation before the first 3 patients presented. Fortunately, they all three tested negative, and we were able to transfer them back to Y nursing home. Meanwhile, their own isolation precautions were implemented which will hopefully forestall any further outbreaks.

Both parties assumed a much bigger care capacity of the other. NSMC assumed that more was already being done at Y nursing home to reduce exposure, and Y nursing home was unaware of what protocols we had put in place and what our bed/patient capacity was. Clear communication as early as possible is needed.