COVID-19

Ringgold County Hospital
Clinical Planning and Preparation
3.16.2020

ISOLATION and reduction in transmission/contact is the key to **reducing** rapid infection and death rates.

MAJOR changes at RCH

- All elective surgeries discontinued after 3.18.2020
- Infusion patients will enter through alternate door (not through ED/Acute door) and go to surgery. NO infusions on Acute Floor.
- Dr. Wehling will likely do more emergency surgeries locally as our receiving hospitals will not be able to assist. E.g. appy's, Choles, etc.
- Surgical staff may be available to assist on ED/Acute side as census goes up and surgeries go down. TBD.
- Labs for Isolation Hall Patients will be obtained by RN/qualified EMS and passed to lab technician through North Door to the outside.

Major Changes at RCH

- 3 Midnight Rule to qualify for skilled has been lifted.
- 96-hour rule for inpatients has been lifted.
- EMTALA rules have been loosened due to expectation of bed shortage in higher level of care hospitals. **Expect to keep sicker patients at RCH than we are used to.
- VISITORS will be screened and strictly limited to protect our patients, our staff, AND our visitors. Please help us in helping them understand why this is important. Encourage calls, Facetime, video chats, etc.
    - Exceptions will be made per physician order for end-of-life/Hospice patients.

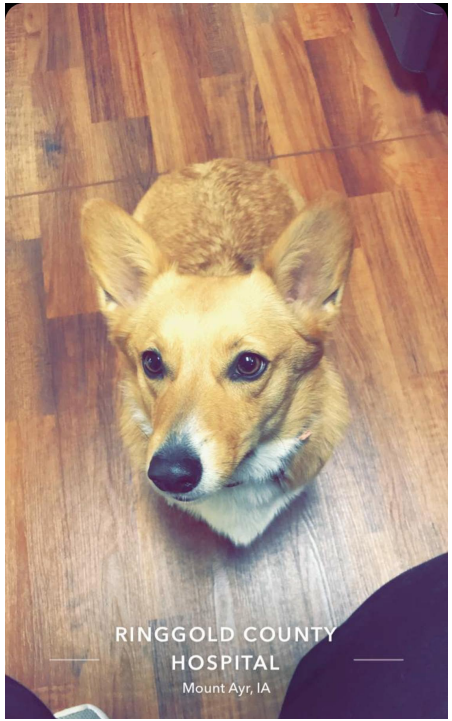
More Changes to keep in Mind

- Wound care to be relocated away from acute floor.
- Doors between Acute & Outpatient to remain closed at all times.
- Senior Life Solutions is looking into alternate therapy plans to maintain the mental health needs of our vulnerable elderly while keeping them safe, as well.
- Public Health is available to help our quarantined patients who may be in need.
- Watch for further changes. Things are changing rapidly and will continue to do so for the next few months.

Skilled Nursing Home Patient Assessments

- **Skilled Nursing Home Patients are under lock-down quarantine until further notice.**
  - M-F during business hours, MAMC providers will see patients in SNF and address concerns and assess patients.
  - Transfers to RCH for respiratory illness or other non-serious illness/injury are to be avoided as much as possible.
  - EMS may be called to provide initial assessment and obtain lab samples at SNF. If patient is determined in need of medical screening exam, ED attending may go to SNF to evaluate patient in lieu of patient coming to ED if during non-clinic hours if time/census allows.
  - GOAL: Prevent spread of COVID19 into SNF.
    - IF YOU ENTER SNF, please ensure extreme caution with hand washing, etc.
  - Continuing education to patient families that the hospital is not a safe place to send their loved one at this time. We will try to keep as many patients in their SNF beds as possible.

Winkey - Dogs cannot catch COVID19



- Winkey stays but will not be allowed in isolation hall.
- Please wash hands before and after petting Winkey.
- Use her for what she is here for: stress relief/therapy!
- She loves to go outside to run in the grass by the helipad. Ask to walk her on your breaks if you need a moment to breathe. She also loves to play tug-o-war with her toys.
- She loves to eat ice cubes!
- She is good for snuggles and belly rubs, too.
- If Dr. K is not on call and Winkey is needed, please feel free to call; one of my family can drop by with her outside the hospital on nice days even if I am resting/post-call.

COVID-19

What do we do with something we have never seen before,
we know little about, and that could put all of our patients and community at risk (and us)?

WE PREPARE.
WE PLAN.
WE TAKE CARE OF OURSELVES AND ONE ANOTHER.
& WE ALL LAUGH AT DR. K IN PPE

COVID19

Most Common Presenting Symptoms

- Fever - 83-98% on presentation
    - Often waxing and waning → normal temp at time of presentation does not rule out fevers; CDC counts “subjective fever”
- Dry Cough - 67.8 - 82% on presentation
- Fatigue - 38.1%
- **Dyspnea ~ 33% = the people that may need our help**
- Myalgias - 11%

What is a FEVER?

Body temperature greater than 100.4F (38C) wearing single layer of clothing in a normal room temperature area without taking acetaminophen, ibuprofen, or other fever-reducing medication within the past 8 hours.

SCREEN EVERYONE

OBJECTIVE:

Prevention of Viral Transmission

CDC Recommendations: Screen patients before they enter waiting rooms or clinical areas.

- Phone Screening
- Carside/Curbside Screening (including temperature)
- If patients/visitors enter building, please screen. If positive & stable, they must mask, exit with staff and offered home vs. isolation evaluation.
- All those sent home due to positive screen without medical visit given educational materials.

COVID19

Why this is important.

Up to 41%

- Most up-to-date studies in the U.S. show up to **41% transmission rate in hospitals** with single positive patient with severe illness.
  - → **PATIENT MASK, STAFF PPE, ISOLATE!**
- This includes transmission to staff/patients who have not had direct or indirect contact with patient.
- Proximity of contact increases risk.
  - Little/no contact ~12%, close contact ~41%.

We (did) have an open ED

Anyone in our regular ED with a positive COVID19 patient will be exposed if not properly protected, including vulnerable patients.

Many standard treatments used for respiratory viral illness increases risk of nosocomial (hospital) spread.

**During initial treatment, we will unlikely know COVID19 status.*

OBJECTIVE: Limit Exposure & Transmission by following best practices for infectious disease isolation.

To Rob, Maintenance & Housekeeping Staff:

For keeping our staff, our patients,
And our community safe. Your efforts
Have gone above and beyond. We are
So grateful for you!

Screening

New Process

Please

READ

REVIEW

UNDERSTAND

PRACTICE, PRACTICE, PRACTICE

GOAL:
PHONE
SCREENING

SPREAD THE WORD: ALL PATIENTS & VISITORS:

TWO DIFFERENT SCREENINGS

INITIAL SCREEN

This screen indicates patient is a potential COVID19 patient.

Please refer patient to RN if screen is POSITIVE.

If in building, mask patient asap.

RN MEDICAL SCREENING EXAM (MSE)

May be completed by phone

Carside

Curbside

BEFORE patient registers

Initial Screen for COVID19

1. Have you had a fever within the past 7 days?
2. Have you had a cough?
3. Have you felt short of breath that is different from normal for you?
4. Do you know if you have had contact with someone who has tested positive for COVID19?
5. Have you already spoken to someone over the phone about these questions before coming to RCH? (if yes, what was their recommendation?)

2 YES answers To questions 1-4 = positive screen.

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THERE IS NO MEDICAL TREATMENT FOR COVID19!

Positive Initial PHONE Screen

Refer Call to RN for advice to STAY HOME until feeling better if NOT short of breath. RN will give self-care and quarantine advice over the phone.

Positive Screen Inside RCH

OBJECTIVE:
Transmission Prevention

1. Place surgical mask onto patient.
2. **ONE** Clinical Staff: Don mask, gloves, gown.
3. Escort patient outside via closest exit.
4. Patient will be offered Isolation Medical Screening Exam (MSE).
    a. If no concerning symptoms (hypoxia, dyspnea) patient recommended to go home on quarantine.
        i. If MSE refused, give home education.
    b. If hypoxia or dyspnea present, provider exam recommended.
5. DO NOT take patient through hospital.
6. AVOID contact with patients and staff as much as possible.

PLAN:

GOAL*: Screen outside RCH

Objectives:

Reduce movement of identified patients through RCH building.

Risk reduction in high risk, essential staff for personal protection and maintenance of clinical capabilities across system.

- Phone preferred.
- Curbside/Carside assessments by RN.
- All patients entering prior to screening identified asap, masked, and escorted outside immediately.

All POSITIVE screens requesting medical screening exam by provider are escorted to nearest exit then outdoors to ***NORTH entrance*** *near isolation hallway or per MAMC protocol.*

Not

ALL

positive screens

require

medical attention!

Positive Initial Screening:

Proceed to:

Trained RN Screening for further screening/counseling

Medical screening exam by RN (If patient presents to ED)

May screen/counsel by phone, curbside/carside or in isolation ED BEFORE patient registered or seen by physician/APP.

ALL Positive Screens requesting medical care enter building through **North Door near Isolation COVID19 Hall.**

Clinical assessments and treatment of presumed cases (positive screen) occur in isolated COVID19 ED rooms (159-161).

For the purpose of EMTALA

AS OF 3.16.2020

ER trained RNs may carry out **Medical Screening Exams** for the purpose of EMTALA on patients presenting with symptoms of cough + fever wishing to be evaluated for COVID19.

CMS has lifted criteria in order to assist with patient flow/overload due to national disaster response to pandemic.

RN may perform initial medical screening. If patient does not appear to be in distress after screening (may take place at carside), patient may be referred to home for quarantine.

Education in written form shall be provided to patients on home care, isolation/quarantine, RCH phone number, and instructions to call if condition worsens, particularly development of difficulty breathing.

If patients insist on seeing physician/provider, then we must follow patient's wishes for EMTALA guidelines. Please stress that there is **no medical treatment** for COVID19 without breathing difficulty and the SAFEST place is home at this time. Do NOT refuse patient medical care.

RN Medical Screening Exam (MSE): COVID19

1. Name, DOB/Age, Phone#
2. Temp, Respers, **Pulse Ox**, Lung exam if patient is curbside/carside. *If by phone, document patient's ability to speak in clear sentences/evidence of dyspnea.
3. How many days have you felt ill? (less than or **greater than 5**?)
4. **Have you been exposed to/near anyone who has tested positive for COVID19?**
5. Have you had fever over past 7 days? If yes, what temp? Fever = Temp greater than 100.3F
    a. ***CDC Criteria includes "subjective fevers." If patient has *felt feverish*, this counts as fever.
6. Have you had a cough? If yes, dry? Productive ("have you been coughing anything up?")
7. **Have you felt like it is hard to breath? Does it feel tight in your chest when you cough or breathe?**
8. Do you have:
    a. High blood pressure?
    b. Heart disease? (coronary artery disease; a-fib does not count)
    c. Diabetes?
    d. COPD or Asthma?
    e. Cancer/are you using chemotherapy?
    f. Any illness or medicine that lowers your immune system?
9. Do you smoke or vape?

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    a. High blood pressure?
    b. Heart disease? (coronary artery disease; a-fib does not count)
    c. Diabetes?
    d. COPD or Asthma?
    e. Cancer/are you using chemotherapy?
    f. Any illness or medicine that lowers your immune system?
9. Do you smoke or vape?

Key to RN MSE:

+ 5 + 6: *Home with COVID19 Home Care/Quarantine Guide.*

+7 -4 -5 -6 AND symptom onset less than 5 days ago: *May be seen in regular ED.*

+4 +5 +6 -7/no concern on 2: *Influenza + COVID19 swab and home with COVID19 Home Care/Quarantine Guide. Order labs under ED Attending.*

+5 +6 +7 or concern on 2*: Influenza swab, CBC, CMP and admit to isolation ED for evaluation by ED attending.*

Patients who are not in distress:

THE SAFEST PLACE is their own home!

Even with positive exposure and positive screening, without severe symptoms:

Once they enter the hospital with other infected patients, risk goes up.

Symptoms less than 5 days: Unlikely *severe* COVID19 (not impossible, highly unlikely).

Recommend:

- Self-quarantine x 9-14 days since 1st symptom onset.
- Fluids - frequent sips while awake.
- APAP or ibuprofen (if not allergic) for fever if uncomfortable, otherwise let fever run as fever may improve outcome and speed recovery.
- Honey, tea, lemon, cough drops.
- OTC cough meds will not likely help - be careful in those with HTN or heart disease. None in peds <6 years.
- Rest
- (+/- Toilet paper)

Typical Evolution of Disease *Post Exposure*

Based on U.S. Experience in Highly Affected Areas

Initial exam is typically unremarkable - patient infected may not show symptoms but is still contagious. Do not lower your guard. ANYONE could be carrying the virus at this time.

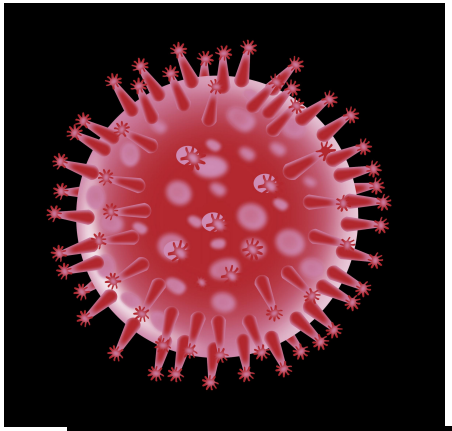
Presence of hypoxemia (O2<83%) and/or fever are indicators for progression to severe disease

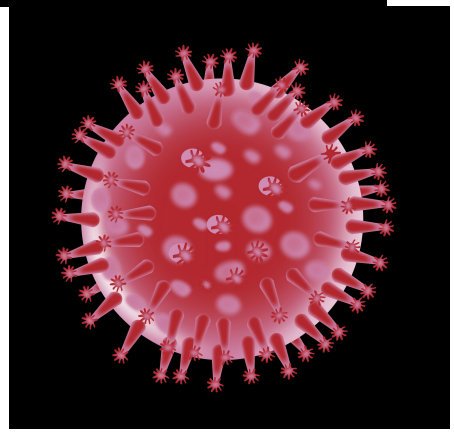
Day *6* - (post-exposure) often the Turning Point

→ Improvement vs. Progression to severe disease (Generalized norm; all patients may vary)

- ***Day 4-5:*** First signs of illness.
- ***Day 6***: Dyspnea vs. ongoing cough/fever/body aches
- ***Day 8***: Admission Criteria vs. ongoing illness vs. starting to feel better.
- ***Day 10***: ICU Admission/Intubation vs. recovering.

Incubation period from exposure to illness is 2-14 days with 4-7 days being most common time to illness onset.





Timing:

Admitted patients: Time from exposure to discharge

Exposure: Day 0

Illness symptoms: Day 4-5

Pneumonia: Day 6-8

Average 18.5 days to discharge from day 0 if survival.

Sepsis/ARDS: Day 10

Time from exposure to discharge or death: 22 days
Avg 14-16th day of admission

Infection Risk Assessment: Ringgold County*

Based on U.S. Experience in Highly Affected Areas

40-70% of population expected to contract COVID-19 under current trajectory.

16-20% Will develop severe illness (pneumonia, sepsis, ARDS)

0.7-4% mortality rate* (This number continues to fluctuate widely and depends upon disease severity)

Ringgold County Population: ~5,000

→ Potential for 2,000-3,500 infected individuals within county.

→ **320-700 may develop severe illness**

→40 - 140 death rate possible* Varies greatly on underlying health of population AND availability/capability of healthcare resources

**Does not include total RCH catchment region (surrounding towns/counties, etc.)*

Mortality Differential

Age Risk Stratification

- Overall 2-4% case fatality rate
- ~80% of mortality cases in patients ≥ 60 years of age
- Case fatality estimated ~8% in patients 70-79 yo
- Case fatality rate estimated ~15% in patients ≥80 yo
- Fatalities extremely rare in <30 and much, much lower in pediatrics.

As of 3.12.2020

____Italy Case & WA State Fatality rate: 6% *Let's not do the same!

High Risk

Highest Risk Individuals for morbidity/mortality (Death/serious illness)

In this patient population, risk of serious illness increases.

- Advanced Age
- Hypertension
- Cardiovascular disease
- Chronic Lung Disease
- Smoking History
- Chronic use of positive pressure airflow device (CPAP/BiPAP)
- Cancer
- Diabetes

Clinical Testing Clues

- COVID-19 testing may not become positive until 2nd or 3rd swabs, taken 2 days apart. Cannot R/O until 2 neg.
- Test typically negative until day 6-8 of infection.
- CBC results are variable - not very helpful but to R/O bacterial pneumonia.
    - Leukopenia +/- lymphopenia vs. lymphocytosis in severe cases.
    - Platelets usually >100
- Chest XR: Bilateral ground-glass or patchy infiltrates +/-
- Chest CT has specific appearance but not a reason to CT in most cases.

—

Mortality with development of Severe disease

49%

Why:

Sepsis

ARDS

Pneumonia +/- secondary bacteria

GOAL: Isolate, Quarantine at home, limit severe illness and death by keeping both well and ill patients safe (and us, too).

GOALS:

Objectives:

Risk reduction

Resource Availability

Staff Safety

Flatten the Curve!

Limit clinical staff entering rooms of Persons Under Investigation (PUI). WE HAVE VERY LIMITED SUPPLY OF PPE! WE DO NOT WANT TO RUN OUT.

Portable X-ray only.

Labs drawn/swabs performed by RN or EMS. Lab will accept specimens at North Door and take to lab.

All admissions remain in isolation rooms 155-158.

Sickest patient or patient requiring respiratory procedure (e.g. intubation) to Room 154 (reverse airflow isolation).

COVID19 Hallway

NO VISITOR POLICY

Exceptions:

Patient is under age 18 *or* needs assistance due to special needs.

- If visitor necessary due to above, limit to 1 visitor.
- Visitor must be screened prior to entry.
- Visitor must remain masked and with patient at all times.
- Case-by-Case exception **per attending provider order** for end-of-life.

Objectives:

Reduce aerosolization of viral droplet into environment.

Reduce risk of nosocomial (hospital acquired) infection.

Treatment Considerations:

If hypoxic:

O2 by nasal cannula covered with surgical mask.

- ALL OTHER oxygen delivery leads to increased risk of viral spread into the air.

No nebs.

- Nebulized therapies aerosolize viral particulate into the environment. MDIs are best practice in lieu of Neb in patients requiring beta agonist.

No steroids. Studies are showing that steroids may prolong illness and prolong viral shedding time period. No clinical evidence of benefit, clinical evidence of harm. Ongoing studies are in progress.

No Bipap, No CPAP → These aerosolize particles into air.

INTUBATION

Objectives:

Reduce aerosolization of viral droplet into environment.

Reduce risk of nosocomial infection.

Reduce risk of staff/clinician infection.

Avoid if at all possible.

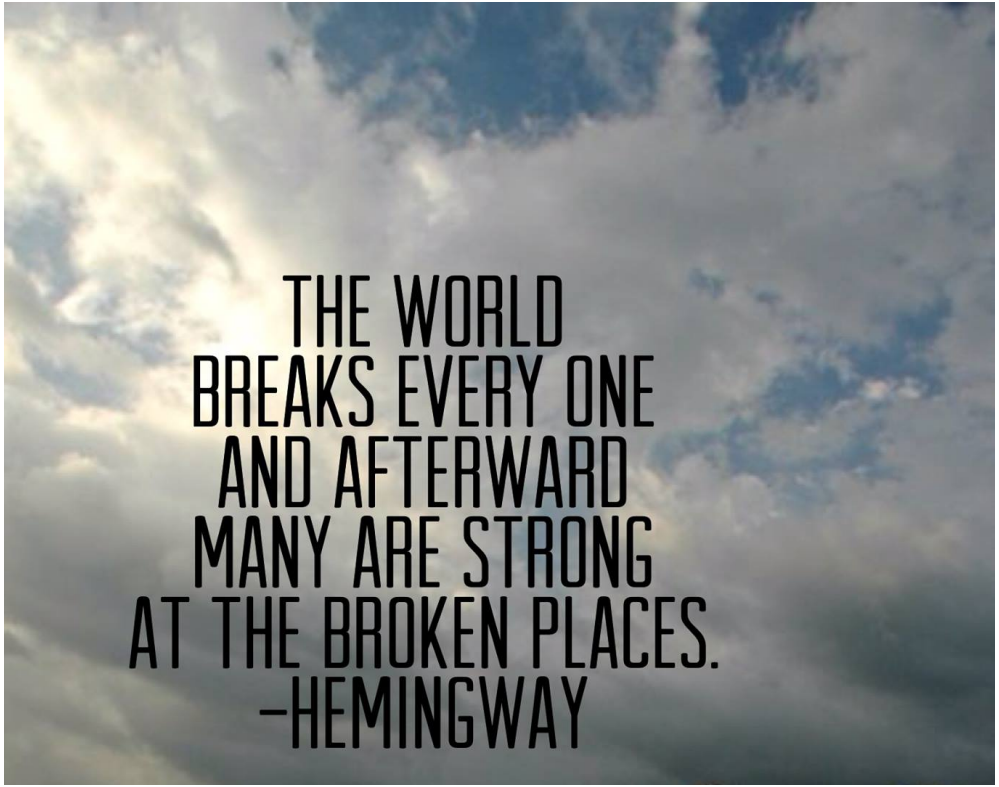
Clinician with highest level of experience performs procedure

Clinician should wear PAPR or N95 + Face shield.

No Bivalve mask ventilation if it can be avoided.

Patient should be paralyzed. Standard RSI. This reduces risk of cough reflex, gag reflex, and increases success on first pass.

Use video laryngoscopy not direct visualization to avoid close contact of clinician face to patient airway.



Caring for our community - New Procedures.

1 Million Thanks
To the RCH staff for caring.
This may be hard.
We need to take care of our patients, ourselves and each other.

COVID-19

More to come. Please review slides as needed and ask questions as needed. Keep in mind things may change rapidly.