Montefiore COVID19 Update

Theresa Madaline, MD
Healthcare Epidemiologist
v. 4/28/20
COVID-19 Cases
New York State

Statewide

Total Persons Tested
826,095

Total Tested 4/26
20,745

Total Tested Positive
291,996

Sex Distribution of Positive Cases
Female 47.5%  Male 52.0%  Unknown 0.5%

New Positives 4/26
3,951

Persons Tested Positive by County

County Stats

<table>
<thead>
<tr>
<th>County Name</th>
<th>Number of Persons Tested</th>
<th>Tested Positive</th>
<th>% Positive Results</th>
<th>Persons Tested Today</th>
<th>New Positives Today</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ulster</td>
<td>7,344</td>
<td>1,219</td>
<td>16.6%</td>
<td>198</td>
<td>29</td>
</tr>
</tbody>
</table>
Montefiore Situation Summary

- We continue to experience a steady gradual decline in overall COVID+ census and new cases since mid-April
- Medical/surgical census falling faster than ICU
- We will face shortages of supplies for months ahead
- Looking to the post-surge new normal for our health system-strategic plan for gradual re-opening of certain services is being developed
- We have performed nearly 14,000 tests for COVID-19
- We have discharged over 4000 people who are recovering!
DOH, CDC, OSHA Updates

• Antibody testing is underway
  – Serologic tests should not be used to diagnose acute or prior SARS-CoV-2 infection, nor should they be used to determine immune status to SARS-CoV-2. They may produce false negative or false positive results, the consequences of which include providing patients incorrect guidance on preventive interventions like physical distancing or protective equipment.
  – In time, we will understand results and how many people are still susceptible
  – Serial testing and surveillance for re-infection will likely be important

• CDC has (finally) updated symptomatology for COVID to include Fever, chills, rigors, muscle pain, headache, sore throat, loss of taste and smell (in addition to cough and shortness of breath)
  – We did this weeks ago and will continue to have a high index of suspicion

• OSHA has issued formal guidance regarding mask reprocessing
  – Vaporous hydrogen peroxide
  – Ultraviolet germicidal irradiation
  – Moist heat (e.g., using water heated in an oven)
  – Microwave-generated steam; and/or
  – Liquid hydrogen peroxide
In Case You Were Wondering...

Use of Commercial Disinfectants to Treat Novel Coronavirus (Covid-19) through Oral Administration or Subdermal Injection

Amanda Kerri, M.D., Andre Young, M.D., Trapper John, M.D., Meredith Gray, M.D., Douglas E. Powers, M.D.

BACKGROUND
On March 23rd, 2020, President Donald J. Trump, during his daily briefings on the response to Covid-19, suggested the use of disinfectants to treat patients infected with the novel coronavirus Covid-19. We conducted a study on the efficacy of using commercial disinfectants through oral administration or subdermal injection.

METHOD
We read the labels on the bottles we found in the janitors closet.

CONCLUSION
This will kill you. Don’t do it.
COVID-19 Infection Control Updates

• **COVID-19 testing and flag for all patients being admitted**
  – Cohorting permitted based on results
  – If PCR negative, but suspect COVID disease=COVID-like Illness (CLI)
  – If PCR positive= COVID-Positive
  – If PCR negative and no suspected COVID disease=COVID-Negative

• **Keep masking patients!**

• **Universal Masking: it’s not going away!**
  – Montefiore has implemented masking for all associates. This means that for your safety and the safety of all associates, you should wear a surgical mask while working unless you are alone in a room with the door closed.

• **Universal Droplet (even for COVID negative-always wear a mask!)**

• **Discontinuation of Isolation in COVID-19 Patients:**
  – Home: 7 days since symptom onset, 72h of no fever, symptoms improving
  – Inpatient
    • For most: continue for the duration of admission
    • If admission >4 weeks or readmitted, can consider serial re-testing (2 PCR at least 24h apart) in consultation with ID and IPC
    • Do not release isolation without approval from IPC

• **Isolation rooms:**
  – Please keep the doors closed, particularly if an AGP is occurring

• **PPE Use:**
  – Please respect green and common areas-PPE should not be worn in these areas
  – Yellow gowns are in short supply; surgical gowns can be used instead but please do not wear in common areas
  – No extended use of gowns if patients on isolation for DIFFERENT REASONS
    • We are identifying outbreaks of resistant organisms
  – Remember to remove gloves and wash hands between patients and between rooms
  – If you have to share equipment, must be sanitized between patients
COVID Diagnostic Testing

• How is it done?
  – Nasopharyngeal and oropharyngeal swab for PCR
  – Order in Epic

• Availability
  – We continue to do testing in-house
  – Commercial laboratories are also able to test if we exceed capacity

• When to test?
  – Symptoms or other suspicion of disease
  – Admission
  – Pre-admission for high-risk patients
  – Associates
  – Part of infection prevention response
COVID Antibody Testing

• Working with DOH at some MHS sites
• Validation for in-house testing complete at MMC
  – Associate testing announcement will come this week
    • Will be by appointment ONLY (don’t call yet!)
    • If you had symptoms, must be at least 21 days from symptom onset to prevent false negative results
  – Patient testing
    • With ID approval
    • Potentially helpful for patients with COVID-like symptoms, but negative COVID PCR
    • Testing too early can result in false negative results
• Interpret with caution
  – False positives and false negatives occur
  – We don’t yet know what results mean or if IgG+ means protection
  – No decisions about isolation, PPE use, or fitness for work can be made using serology at this time
Does the presence of IgG antibody mean a person has immunity to SARS-CoV-2?

• IgM appears in about 10 to 15 days post-onset of symptoms and the IgG appears after 20 to 28 days. It is usually the IgG class of antibodies which is considered protective.
• Depending on the pathogen, the IgG response can be long lasting or can decline over time.
• Sometimes a “booster” consisting either of a re-infection or a second vaccine administration is necessary to raise IgG levels to a protective level and the secondary response is generally long-lasting.
• Until the virus re-appears or there is evidence of re-infection, we will not know whether or not the presence of significant levels of IgG are indicative of protective immunity.
### Comparing COVID-19 Testing Methods

Montefiore now offers two different tests for COVID-19. Unfortunately, there is no perfect test that can say with absolute certainty who has been infected with the virus that causes COVID-19 (SARS-CoV-2) or who might be immune to the virus in the future. We now have two ways of assessing the possibility of infection. One way is to look for the presence of the virus itself in your nasopharynx (the upper part of the throat behind your nose). The other is to look for the presence of antibodies to the virus in your blood. We now have each type of test at Montefiore. This grid may help you compare the two tests:

<table>
<thead>
<tr>
<th>Testing for the Virus (PCR Test)</th>
<th>Testing for Antibodies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>How is the sample taken?</strong></td>
<td><strong>Blood test</strong></td>
</tr>
<tr>
<td>Swab is placed deep in the nose and sometimes in the mouth</td>
<td>Antibody Test</td>
</tr>
<tr>
<td><strong>Will it help me know if I have the virus now?</strong></td>
<td></td>
</tr>
<tr>
<td>Yes (but some people test negative and still have the infection)</td>
<td>No</td>
</tr>
<tr>
<td><strong>Will it help me know if I’m immune/protected from infections in the future?</strong></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>We don’t know yet. Doctors don’t have enough information to know if having antibodies means you are protected from infection. In some infections the presence of antibodies means you are protected but in other infections it does not. Researchers will be studying this important question for COVID-19.</td>
</tr>
</tbody>
</table>

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**OHS COVID-19 Call Center:**
(718)-920-5406
Hours: 8AM-10:30PM, Daily
**What does this test for?**

Looks for parts of the virus itself

**PCR**

Looks to see if your body made antibodies to the virus. Having antibodies suggests that you had infection with the virus. But, the test may also detect antibodies to viruses in the same family as COVID-19. Having antibodies doesn’t 100% confirm that you were infected with COVID-19.

**Antibody Test**

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**If I currently have symptoms of COVID-19 will this test help me know if I’m infected?**

Yes (but some people can test negative and still have the infection)

**PCR**

Your body takes time to make antibodies, so this test could miss a new or very recent infection. If the test is positive it suggests you probably have had the infection.

**Antibody Test**

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**If I test negative, does it mean that I never had COVID-19?**

No (there are some people with COVID-19 who test negative)

**PCR**

No (Some people who have been infected may not develop antibodies to COVID-19 or may take more time to do so. We are still learning how often that happens and what that means.)

**Antibody Test**

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**If I never had symptoms of COVID-19 but want to be tested, which one would help?**

This test could help find out if you are one of the people who doesn’t develop symptoms but could be infected now (“Asymptomatic ”)

**PCR**

This test could help you find out if you were one of the people who didn’t develop symptoms but were infected in the past.

**Antibody Test**
## How to Interpret Antibody Test Results

<table>
<thead>
<tr>
<th>COVID Symptoms and/or Nasal PCR Result</th>
<th>COVID-19 IgG Antibody Result</th>
<th>Interpretation</th>
<th>Do I have protection from future COVID-19 infection?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>Positive</td>
<td>COVID-19 Infection occurred and antibodies against the virus are present in your blood</td>
<td>We don’t know yet</td>
</tr>
<tr>
<td>Positive</td>
<td>Negative</td>
<td>COVID-19 Infection occurred and antibodies against the virus are absent from your blood</td>
<td>We don’t know yet</td>
</tr>
<tr>
<td>Symptoms were present, but test was Negative or no test</td>
<td>Positive</td>
<td>COVID-19 Infection likely occurred</td>
<td>We don’t know yet</td>
</tr>
<tr>
<td>Symptoms were present, but test was Negative or no test</td>
<td>Negative</td>
<td>COVID-19 Infection either did not occur or occurred but wasn’t confirmed</td>
<td>We don’t know yet</td>
</tr>
<tr>
<td>No symptoms, no test or Negative test</td>
<td>Positive</td>
<td>COVID-19 Infection could have occurred, but cross reactivity with other seasonal coronaviruses is possible</td>
<td>We don’t know yet</td>
</tr>
<tr>
<td>No symptoms, no test or Negative Test</td>
<td>Negative</td>
<td>COVID-19 Infection likely did NOT occur</td>
<td>Likely no protection</td>
</tr>
</tbody>
</table>
Occupational Health

- Associates who develop symptoms such as fever (subjective or measured including chills), sore throat, cough, shortness of breath, diarrhea, chest pressure, muscle aches, severe fatigue, persistent headache, loss of taste/smell should contact OHS and not work

- Please call 718-920-5406 for OHS from 8am-10:30pm, 7 days per week
  - Notification of illness
    - No need to call before physically leaving work!
  - PCR Testing appts
    - Expanded access for HCW in high-risk areas with or without symptoms (ICU, ED, transplant, oncology, OB, etc)
    - Antibody test appointments coming soon, but not yet!
  - Return to work (even if PMD cleared!)

- Multiple sites, expanded staff to better serve our associates and get tests done faster

- Associates may return to work 7 days after symptom onset, 72 hours after resolution of fever, and improvement of symptoms, whichever is longest
  - Associates must wear a mask for 14 days after symptom onset upon return
  - Hospitalization: note from personal MD clearing to return to work
  - The spectrum of COVID-19 symptoms and duration varies; return to work time is often longer than 7 days and is determined by OHS to ensure associates are physically ready and healthy for work

- OHS/Infectious Disease Collaborative Guidance on Intranet
Treatment and Trials

- Hydroxychloroquine (Infectious Diseases Division and Antimicrobial Stewardship Program)
  - No longer routinely recommended unless part of a trial
  - Inpatient outcomes: ORCHID
  - Healthcare worker outcomes (undergoing IRB review now)

- Convalescent plasma (PI: Liise-anne Pirofski, MD)
  - Randomized controlled trial starting soon
  - rbartash@Montefiore.org for Moses
  - Hyoon@Montefiore.org for Einstein
  - https://nybloodcenter.org/donate-blood/convalescent-plasma/ for EAP

- Remdesivir (PI: Barry Zingman, MD): CLOSED
  - Antiviral drug
  - More information to come on additional remdesivir studies going forward based on preliminary analysis
  - Einstein site will be included
  - Use of other study drugs/protocols will be an exclusion criteria

- Sarilumab (PI: Michelle Gong, MD)
  - Monoclonal antibody to IL-6 receptor
  - Severe or critical disease
  - maboodi@montefiore.org

- Leronlimab (PI: Harish Seethamraju, MD)
  - Monoclonal antibody to the CCR5 receptor
  - hseetham@montefiore.org

- Corticosteroids for respiratory failure and cytokine storm

- Anticoagulation
COVID-19 ED/Inpatient Treatment Protocol

Highly Suspected COVID-19, Test Pending

Mild Disease, no or minimal Lower Respiratory Tract infection (LRTI) findings, NO plan to admit from ED*: Continue with supportive care only

Moderate-Severe Disease with LRTI**: ORCHID study (hydroxychloroquine vs. placebo; opening soon; see Appendix A for details)

*NOTE: due to an increasing number of studies showing unclear benefit to hydroxychloroquine (HCQ) in hospitalized patients, we no longer recommend widespread HCQ use outside of a clinical trial

Negative test:
If ongoing high suspicion of COVID-19, continue isolation precautions and repeat PCR in 48-72h; consider sending serology (call ID to discuss)

*Mild Disease: URI; flu-like; GI predominant; mild-no dyspnea/shortness of breath/Diff. Of Ed.; SpO2>95% on RA; low grade/resolving fevers/chills; minimal-no infiltrate.  ** Moderate-Severe Disease with LRTI: persistent fever, more than mild dyspnea/DOE, tachypnea, and rales with SpO2<94% on RA, diffuse infiltrates/granular glassy opacities on imaging, or need for supplemental O2, ECMO or mechanical ventilation; can have ARDS, septic shock and/or multisystem failure.

UPDATE: WE ARE OBSERVING AN INCREASING NUMBER OF BACTEREMIAS AND POSITIVE RESPIRATORY CULTURES IN COVID-19 PATIENTS. PLEASE ASSESS LINE DURATIONS DAILY, PRACTICE STERILE INSERTION AND MAINTENANCE OF CATHETERS, AND USE ANTIBIOTICS APPROPRIATELY TO PREVENT MULTIDRUG RESISTANCE.
### Appendix A- Clinical Trials

**Leronlimab Phase 2 Clinical Trial for Patient with Mild-Moderate COVID19**

**Inclusion Criteria**
1. Hospitalized male or non-pregnant female ≥18 years of age
2. Confirmed SARS-CoV-2 by PCR
3. Mild-to-moderate symptoms of respiratory illness
4. SaO2 >93% on room air and RR ≤30 breaths per min

**Exclusion Criteria**
1. ARDS or respiratory failure necessitating mechanical ventilation
2. ESRD or on dialysis
3. Uncontrolled active systemic infection requiring admission to ICU

*Qualified patient can be enrolled at Moses currently. Question regarding enrollment, email LeronlimabDrugTrial@montefiore.org*

**Regeneron Sarilimab Adaptive Phase 2/3 Trial for Patient with COVID19**

**Inclusion Criteria**
1. Hospitalised male or non-pregnant female >18 years of age
2. Confirmed SARS-CoV-2 by PCR
3. Supplemental Oxygen

**Exclusion Criteria**
1. ANC < 2000/mm³
2. AST or ALT levels > 5 x ULN
3. Platelets < 100,000/mm³
4. Received anti-IL6 or JAK in the past 30 days
5. Current treatment with combination of leflunomide and methotrexate
6. Active TB or history of incompletely treated TB
7. Active systemic bacterial or fungal infection
8. Other clinical trials (compassionate use remdesivir permitted)
9. Receipt of immunosuppressive treatment including IVIG in the past 5 months or plans to receive during study period

*Qualified patient can be enrolled at Moses and Einstein. Question regarding enrollment, email mbbodi@montefiore.org*

**Gilead Remdesivir Expanded Access Trial**

**Inclusion Criteria**
1. Hospitalized male or non-pregnant female >18 years of age
2. Informed consent obtained
3. Confirmed SARS-CoV-2 by PCR
4. Invasive mechanical ventilation
5. eGFR ≥30 ml/min
6. ALT ≤ 5 x ULN

**Exclusion Criteria**
1. Evidence of multi-organ failure
2. If patient is on > 1 pressor to maintain blood pressure
3. ALT level > 5 x ULN
4. eGFR < 30 ml/min or dialysis or Continuous Venous-Venous Hemofiltration

*Qualified patient can be enrolled at Einstein*

**NIH Remdesivir Adaptive COVID19 Treatment Trial (ACTT)**

**Inclusion Criteria**
1. Hospitalized male or non-pregnant female >18 years of age
2. Consent is obtainable from patient or surrogate
3. Confirmed SARS-CoV-2 by PCR < 72 hours prior to randomization
4. Illness of any duration with at least one of the following:
   - Radiographic infiltrates by imaging
   - Rales/crackles on exam AND SpO₂ < 94% on room air
   - Requiring supplemental oxygen
   - Requiring mechanical ventilation

**Exclusion Criteria**
1. ALT/AST > 5 x ULN
2. eGFR < 30 ml/min or require dialysis of any type
3. Pregnancy or breast feeding
4. Anticipated transfer to another hospital which is not a study site within 72 hours.
5. Allergy to any study medication.

*Qualified patient can be enrolled at Moses*

**Outcomes Related to COVID19 Treated w/ hydroxychloroquine Among Inpatients with Symptomatic Disease (OCHMID) (NCT01)**

**Inclusion Criteria**
1. Age ≥ 18 years of age
2. Hospitalized or in an ED with planned hospitalization
3. Symptoms of acute respiratory infection, w/ one or more of:
   - cough
   - fever (≥ 37.5°C / 99.5°F)
   - shortness of breath
   - sore throat
4. Lab-confirmed SARS-CoV-2 within past 10 days or SARS-CoV-2 lab test pending plus a high clinical suspicion for COVID-19 as indicated by all of the following:
   - Cough with duration ≤ 10 days
   - Bilateral pulmonary infiltrates on imaging (X-ray, CT, US) or new hypoxemia w/SpO₂ < 94% on room air
   - No alternative explanation for symptoms of acute respiratory infection

**Exclusion Criteria**
1. Prisoner
2. Pregnant or breast feeding
3. Symptoms of acute respiratory infection > 10 days
4. > 48 hours between meeting inclusion criteria and randomization
5. Seizure disorder
6. Porphyria cutanea tarda
7. Diagnosis of Long QT syndrome
8. QTc > 500 ms on ECG within 72 hours prior to enrollment
9. Ability to receive enteral medications
10. Receipt of >1 dose of hydroxychloroquine or chloroquine in the 10 days prior to enrollment
11. Inability to receive enteral medications
12. Inability to be contacted on Day 15 for outcome assessment

*Qualified patient can be enrolled at Moses and Einstein*
COVID-19 Convalescent Plasma Trial


- Criteria for donation:
  - Lab confirmed **positive PCR test** for COVID-19 (documentation of positive test is required)
  - Your symptoms have been **gone for at least 14 days**
  - Criteria for donation EXCLUDE those with only positive Antibody test but negative diagnostic test or no diagnostic test

- Randomized Controlled Trial (plasma vs. saline)
  - Critical to understanding efficacy of convalescent plasma
  - Inclusion: ≤3 days hospitalization or symptoms ≤ 7 days plus oxygen requirement but not intubated
  - Enrollment will be done proactively by study team by screening admissions for potential participants
  - If you think you patient might qualify, email:
    - Rachel Bartash for Moses: rbartash@Montefiore.org
    - Hyunah Yoon for Einstein: Hyoon@Montefiore.org
This protocol was created for internal Montefiore clinical purposes only and cannot be construed to serve as general recommendations or guidelines for anyone outside of Montefiore.

These treatment protocols are recommendations for caring for patients with COVID while Montefiore is operating under its Emergency Procedures for the declared state of emergency for the COVID pandemic. Additionally, these protocols may change as more research data becomes available. Please frequently check for updates.

Clinicians should always rely on the specific patient's medical condition for clinical decision-making, even if that requires a deviation from the protocol.

**Corticosteroid therapy in COVID-19 pneumonia & Impending Respiratory Failure**

Consider steroids in patients with:
- Evidence of significant lower respiratory tract infection:
  - bilateral infiltrates or ground glass opacities on CXR or CT
  - hypoxia [SpO2 ≤94% on RA]
  - **AND** any 1 of the following:
    1. NRB mask with O₂ flow requirement >10L (equivalent to ≥ 80% FiO₂)
    2. Increased work of breathing deemed as "impending respiratory failure"
    3. Doubling of CRP in 24 hours to >10, with increase in O₂ requirement

Consider Rx with systemic steroids

Assess Risk for Cytokine Storm/secondary Haemophagocytic Lymphohistiocytosis:

<table>
<thead>
<tr>
<th>Clinical Parameters</th>
<th>Laboratory Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever &gt; 101°F for 48hrs</td>
<td>Ferritin ≥ 1000 ug/L</td>
</tr>
<tr>
<td>Systolic BP &lt;90 (not resp to IVF)</td>
<td>CRP ≥ 30 mg/dL or change in CRP ≥ 15mg/dL</td>
</tr>
<tr>
<td>PaO2/FiO2 &lt;200</td>
<td>Absolute neutrophil count &lt;2.0 or &gt;7.7 K/ul</td>
</tr>
<tr>
<td></td>
<td>Platelets ≤ 100 k/ul</td>
</tr>
<tr>
<td></td>
<td>Hemoglobin ≤ 9 g/L</td>
</tr>
<tr>
<td></td>
<td>AST ≥ 150 IU/L</td>
</tr>
</tbody>
</table>

If ≥ 2 clinical AND ≥ 2 laboratory parameters:
Place e-consult based on location:
- CHAM→Pediatric Rheumatology
- Moses/Wakefield→Adult Rheumatology
- Weiler→Allergy/Immunology
MONTEFIORE ANTICOAGULATION PROTOCOL
FOR ADULT COVID PATIENTS (Not Critical Care)

Order baseline PT, PTT, CBC, D-Dimer and fibrinogen levels (if not done in ED)
Place thromboprophylaxis orders (see below*) then follow algorithm

Does patient meet criteria?
1. Platelet count >50,000
2. No history of Child-Pugh Class C liver disease
3. Hb >8.0g/dl or has been stable at a low level
4. No evidence of bleeding or recent Hb decrease of ≥2g/dl

Yes
No

Assess D-Dimer Result

D-Dimer ≤3ug/ml

*Continue Thromboprophylaxis
Apixaban 2.5mg orally bid (for variable renal function, caution in hepatic impairment)
OR
Enoxaparin 40mg SQ Daily (BMI<40, GFR≥30 and not changing)
Enoxaparin 30mg SQ Q12 (BMI≥40)

D-Dimer >3ug/ml or rapid increase

Consider Therapeutic Anticoagulation
Apixaban 5 mg orally bid (for renal dysfunction or variable renal function, consider 2.5mg BID if LFT’s >3x nl or GFR<15)
OR
Enoxaparin 1.5 mg/kg/day (or 1mg/kg q12) (if GFR<30 use 1mg/kg daily, not for ESRD)
OR
other full dose anticoagulation (clinical judgment)

Ready for Discharge
Evidence of DVT/PE: Consider Imaging

No imaging needed or imaging negative

Imaging/Ultrasound
Positive

Therapeutic anticoagulation for 3 months.

Negative

Imaging/Ultrasound
Positive

Ready for Discharge: Duplex US if possible.

Imaging/Ultrasound
Negative

Continue therapy at same dosages for 3-4 weeks.

Questions concerning AC:
Emergent: Call Hematology
Questions: Place an e-consult

Questions concerning AC:
Emergent: Call Hematology
Questions: Place an e-consult

Continue prophylaxis at same dosages for 3-4 weeks.
For those patients unable to get AC medications, aspirin (81mg) daily may be an alternative
Associate Wellness Check, PPE, Scrubs

• Wellness check at each hospital entrance
• PPE distributed according to role
  – If you wear a size small mask, please request at the door, from central supply or from the nurse manager on your unit
• Additional PPE is still available on the units when needed
  – PLEASE give PPE to non-clinical staff who need it to do their work on your unit (EVS, IT, nutrition, etc.)
• Please wear a mask while working
  – It’s for your safety and the safety of your colleagues!
• No longer need to return N95
• Please return your scrubs for laundering
N95 Use and Skin Protection

- If you have not used a particular model in the past, just-in-time fit testing is available through ADNs
- Small masks also available
- DO NOT wear a surgical mask under the N95
- Skin care guidelines available from NPIAP (on intranet)
- Be cautious with bulky barriers at the bridge of the nose; seal must be maintained
- We investigated commonly used products for nose protection:
  - 4x4 gauze flat and folded: FAIL
  - Steri-strip: FAIL
  - DuoDERM (not a good idea anyway): FAIL
  - Bandaid: FAIL
  - Skin Prep: PASS, but caused eye irritation

Next steps:
PROTECTING FACIAL SKIN Under PPE N95 Face Masks

PREP YOUR SKIN

1. Cleanse your face gently with pH balanced cleansers
2. Apply liquid skin sealants/protectants on areas of direct mask contact and allow to dry
3. Do not use petrolatum jelly or mineral oil as a skin sealant

GET THE PRESSURE OFF!

1. Remove the mask by lifting at the sides for at least 5 minutes every 2 hours, and ideally 15 minutes every 2 hours
2. If this time frame isn't practical, any pressure relief is helpful

DO IT ALL SAFELY!

1. Do not use dressings that alter the seal of the N-95 mask
2. If you use thin prophylactic dressings on your nose or cheeks, recheck the seal of the N-95 mask
3. Preliminary reports indicate thin dressings can be used under other PPE devices if they don't impair the function of the PPE device
4. When removing the thin prophylactic dressing, close eyes and avoid inhaling any aerosolized virus or particles

HELP WOUNDS HEAL

1. Treat abrasions from masks with moisturizer, skin sealant, cyanoacrylate or a thin dressing
2. Do not apply cyanoacrylates near the eyes or mouth

Please refer to the NPIAP position statement on preventing injury with N95 masks for more detail.
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NPIAP Position Statements

Goal: Prevent Injury from Friction and Moisture

Statement 1: Application of a liquid skin sealant/protectant on skin surfaces that will be in contact with the mask may help prevent friction injuries without interfering with the fit of the N95 mask. (Good Practice Statement)

Implementation Considerations

- Cautiously apply liquid skin sealants/protectants to avoid contact with eyes and mucous membranes.
- Do not use cyanoacrylates near the eyes.
- Allow to fully dry before applying the mask.
- Liquid skin sealants/protectants will not mitigate the effects of pressure and shear.
- Maintain good skin care practices. Keep the skin clean and appropriately hydrated. Avoid alkaline soaps/cleaners and harsh chemical solutions.
- Examples of liquid skin sealants/protectants can be identified at the Wound Source website. Follow manufacturer instructions for product use.

Statement 2: The NPIAP does not recommend the use of petroleum jelly, mineral oil or any other compound that could enhance slippage and affect the function of the mask. (Strength of Evidence = C).

Evidence Discussion: Petroleum jelly is potentially flammable, especially in the presence of oxygen. OSHA approved N95 masks have at least 95% filtration efficiency against solid and liquid aerosols that do not contain oil.

Goal: Minimize Intensity of Pressure

Statement 3: The NPIAP is not making a recommendation on the use of thin prophylactic dressings under N95 respirator masks at this time due to critical uncertainties regarding whether this practice will increase the risk of COVID-19 infection. (No Recommendation)

Evidence Discussion:

1. There is evidence to show that thin prophylactic dressings placed under medical devices in patient populations reduces the risk of pressure injuries (Recommendation 8.5). This provides indirect evidence for implementing this practice in clinicians wearing N95 respirator masks.
2. There are no comparable studies in clinicians wearing N95 respirator masks.
3. There is currently no evidence that can ensure the wearer’s safety from viral penetration when a dressing is placed under a respiratory type mask. This could be particularly problematic in the case of dressings with a porous outer surface.
4. Although more research is needed, there are preliminary clinical reports of:
   a. Successful refitting of N95 masks to NIOSH specifications with thin prophylactic dressings in place. Refitting N95 masks for all staff may not be feasible in the current environment.
   b. Successful use of thin hydrocolloids dressings without aerosolization upon dressing removal.
Safe PPE Use

- Masks should never be worn/stored under chin or nose
- N95/surgical masks and shields ok for extended wear
- Gowns, gloves, suits should not be worn in “green” areas, while eating or outside patient care areas
- Full suits: still need a gown for patient care and MUST be disinfected before re-use to prevent self contamination
Tyvek Suit Decontamination

Donning PPE with Tyvek Suit

Doffing PPE with Tyvek Suit
PPE Monitors

- They were deployed because of numerous requests to help support proper wearing of PPE
- Trained by infection prevention
- Maintain clean areas
- Remind HCW if PPE not on properly so they can protect themselves
- Please treat them kindly and help integrate them into your workflow on your particular unit
- They are not here to judge you—they are here to support you!
Infection Prevention Team

- Infection preventionists and hospital epidemiologists exist to protect you and to protect patients
- Provide expertise, data, and feedback
- Partner to enhance everyone’s safety
- Eye on HAI’s, MDRO’s, exposures, and more
- They are here to help!

THANK YOU, INFECTION PREVENTIONISTS
YOU ARE OUR SUPERHEROES
Social Distancing Recommendations

- Social distancing is not going away any time soon-this is our new normal
- During breaks and meals at work, maintain 6 feet separation, limit number of people in a space
- Wear a mask at all times you are not alone with the door closed
- Create seating arrangements to allow for distance between individuals
- Limit number of people in elevators
- Consider FaceTime, Zoom etc. to stay in touch with friends/family-don’t visit
- Meetings=tele-conferences
- Bump elbows instead of handshakes
- Avoid unnecessary travel (and tell your friends and family the same!)
Leveraging Technology

• Name tags
  – PPE can hide our faces and badges
  – Thanks, IT team for picture nametags in the lobby!

• EPIC team
  – Exhaustive work building supports and orders in Epic to support isolation, logistics, testing, monitoring, trials, and more!

• Webinars
  – Thank you Thomas!
ReCOVery

• Comprehensive planning for what “re-opening” services looks like
• Supply chain will be a limiting factor
• Infection control will also dictate how we do things going forward
• Closing surge units in sequential order
• Consolidating ICU patients to enable closure of surge ICU’s
CCM Heroes

- **Tara Bellamkonda, MD**
  - “Dr. Bellamkonda is a former CCM faculty member who came back to during the one month break that she has between clinical duties to help in our ICU. This was sorely needed and I cannot tell you how grateful we were.”

- **Tina Chen, MD**
  - “Dr. Chen doubled the number of shifts that she did in the ICU to help during the crisis which would normally make it hard for her to do research, but she still worked on her research on detecting ARDS during COVID with machine learning and electronic data abstraction on COVID pts for several multicenter studies. In addition she developed the proning protocol for both intubated ARDS patients and non-intubated patient, the early mobilization procedure, helping to orient surgeons before deploying to the ICUs, and made house calls to colleagues sick with COVID. AND, to keep everyone’s spirit up when things were looking somewhat dark, she developed a Daily Note of Positivity that highlights the successes we have had with COVID patients and emails them to everyone. I did not realize how much I needed it until she started doing it.”

- **Adam Keene, MD**
  - Adam has been relentlessly advocating for safety of healthcare workers on the CCM team, and took the time to walk me carefully through the CCM experience in Ebola preparedness to inform our COVID response, and even took the time to check on me to see how I was doing as things unfolded. He also developed a template to create intubation drapes with a team of medical students, and these important safety items are now being made in large quantities by a designated team to protect providers at all campus while the intubate patients.

- **EVERY ICU NURSE EVER**
  - I have no words to describe the courage, perseverance, skill, knowledge, compassion, dedication and more of our ICU nurses. They should all wear crowns.
Intranet Guides and Protocols

- Screening
- Triage
- Isolation
- Situation summary
- PPE safe use and reuse
- Radiology
- Cleaning
- Security
- Bioengineering
- NICU
- L&D and Mother-baby
- Treatment
- ICU care
- Discharge instructions
- CAC
- Autopsy/post-mortem
- Food and nutrition
- IT
- Security
- Procurement
- Engineering
- SNF
- HR
- OHS
- Visitors
- How to stay safe at home
- Wellness Information
- ...and more!
Communication

• Dr. Ozuah’s daily calls
• E-Montefiore emails
• Webinars recorded and posted on intranet
• Continuously updated Intranet COVID19 page
• Community-facing internet page
• Grand Rounds
• Hotline - 914-457-4136
• Email - COVID19@Montefiore.org
• Infection Prevention assigned to your site/area
• OHS
• Central Supply for PPE or equipment requests
• Don’t forget HIPAA. It’s not ok to look in friends’ charts!
Montefiore Tele Response

- Montefiore Internet Chatbot
- Direct Patient calls to PAC
- Provider Hotline: 914-457-4136
- Community Patient Hotline: 844-444-CV19
- Employees MMC OHS: 718-920-5406
- MHS COVID19 Tele-Response
Summary

• We have come so far in such a short time that we are now exploring what a post-COVID healthcare setting looks like
• We continue to use innovation, creativity, teamwork, grit and continuous learning to heal and care for people affected by COVID
• Though we have miles to go, we are past the peak!
• Healthcare worker and patient safety remain #1
• Be careful with PPE-the WAY you use it matters and can put you or others at risk inadvertently
• Be kind to your PPE monitors and infection preventionists-they are here for you!
• Please maintain social distancing at work and at home! It matters. Don’t stop!
• Please call OHS if you feel unwell
• **We are in this together**
The “Bad Day”

- Sadness
- Guilt
- Frustration
- Anger
October, 2013:

EXAMINATION: MRI Thigh w/o contrast right
IMPRESSION: Nondisplaced stress fracture involving the right inferior pubic ramus.

October, 2018:

Personal Best!

January, 2019:
July, 2019:

October, 2019:

March, 2019:

Dear Runners,

At New York Road Runners, the welfare of our running community is always our top priority. Due to the rapidly developing coronavirus (COVID-19) situation, the NYC Half, scheduled for Sunday, March 15, and the accompanying Rising New York Road Runners youth event, have been canceled. We appreciate the support of New York City officials through this complicated decision-making process.
APPLICATION APPROVED!

Hi Theresa,

Congratulations! Your application for an entry to the Bank of America Chicago Marathon has been approved. Log into your participant account to manage your entries, update your personal settings, buy products and much more!

Your entry is valid for your participation only in the 2020 Bank of America Chicago Marathon and cannot be transferred. Your entry fee cannot be refunded.

BOOK YOUR RACE WEEKEND HOTEL

Race weekend is one of the most popular weekends for hotel rooms in the city of Chicago. If you are traveling to Chicago for the 2020 Bank of America Chicago Marathon, we encourage you to take advantage of special hotel rates from Expedia, the official Chicago Marathon housing partner. Visit chicago.marathons.com/2020hotels to access exclusive room blocks at the city's most desirable hotels. Don't miss this opportunity to book early!

For more information about the Bank of America Chicago Marathon, go to chicago.marathons.com. Questions? Contact the Bank of America Chicago Marathon office at 312-904-8900, Monday - Friday 9 a.m. to 5 p.m. U.S. Central Time or email office@chicagomarathon.com.

Go To Your Account

Theresa Madaline
CONFIRMATION NUMBER
S6F4YFBRDAAS
CATEGORY
MENS PARTICIPANT SHIRT

Montefiore
DOING MORE
What is it about Running?

- Despite:
  - Injury
  - Accidents
  - Time
- Running, athletics, adrenaline are a common theme among people in medicine
- Why do so many of us do this?
- Why do I keep running after getting hurt?
- Why does Anthony Fauci run?
- It's not about the medals. Or the records.
Why I Run

• Focus only on taking the next step, not the miles ahead
• Be in the moment despite the discomfort-learn to let go
• Accept that we cannot control the long road ahead; we must live the mile we are in
• In the struggle there is healing and release
• In letting go, we find peace and acceptance
• Allow ourselves to be vulnerable, learn humility, and to move forward anyway
The “Bad Day”

- Sadness
- Guilt
- Frustration
- Anger

“COVID Rage Run, 2020”
Vulnerability, Humility, and Healing

“The world breaks every one and afterward many are strong at the broken places”

-Ernest Hemmingway, *Farewell to Arms*
Filling the Tank Back Up

- Cry
- Yell
- Fall down
- Do what you need to do to allow yourself the space to break down and feel.
- By unloading this baggage you create room to begin again, to get back up, brush the dirt off the wounds and keep going
- Fill the tank in your way
- Realize that others need to do this too in order to continue on
- Don’t be afraid to talk about it—everyone feels this way
A Colleague and Victim of COVID-19

Top E.R. Doctor Who Treated Virus Patients Dies by Suicide

“She tried to do her job, and it killed her,” said the father of Dr. Lorna M. Breen, who worked at a Manhattan hospital hit hard by the coronavirus outbreak.

Dr. Lorna M. Breen. Chris Lucas Photography

By Ali Watkins, Michael Rothfeld, William K. Rashbaum and Brian M. Rosenthal
April 27, 2020

A top emergency room doctor at a Manhattan hospital that treated many coronavirus patients died by suicide on Sunday, her father and the police said.

Dr. Lorna M. Breen, the medical director of the emergency department at NewYork-Presbyterian Allen Hospital, died in Charlottesville, Va., where she was staying with family, her father
Maslow’s Pyramid of Needs

We are not here.

We are here.

Self-actualization: achieving one’s full potential, including creative activities

Esteem needs: prestige and feeling of accomplishment

Belongingness and love needs: intimate relationships, friends

Safety needs: security, safety

Physiological needs: food, water, warmth, rest

Self-fulfillment needs

Psychological needs

Basic needs

We have to focus on how we can get here
Emotional Wellbeing Staff Resources: Virtual Access

Your emotional wellbeing is important to Montefiore. Please see Montefiore’s resources below:

*Montefiore COVID-19 Emotional Support Line: 718-920-8844 (Daily 8am - 10pm)*
7 days per week, 8am -10pm you can be connected by phone to a Montefiore psychiatrist, psychologist, or social worker for peer support by calling 718-920-8844. Associates interested in formal mental health services will be connected with Montefiore resources including the Department of Psychiatry and Behavioral Sciences, the Employee Assistance Programs, and Associate Wellness Programs.

Montefiore Anxiety and COVID-19 Video: https://vimeo.com/397586429/1aa1dc57ce

To Your Health! Associate Wellness Virtual Services

Supportive Wellness
Free, telephonic confidential appointments with Montefiore’s Associate Wellness Wellbeing Manager for stress management and emotional wellbeing consultations. Contact Dr. Brenda Boatswain, a licensed psychologist, at bboatswa@montefiore.org.

- Relaxation Tracks: Associates can partake in recorded relaxation tracks that provide gentle music or guided relaxation exercises via the phone or internet. The hotline and website are available 24/7, at 718.920.2256 or online at www.montefiore.org/healtharts-relaxationtracks.

Creative Wellness
Free individual telephonic creative wellness consultations with Montefiore’s Associate Wellness Program Manager, a licensed art therapist for stress management and mindfulness techniques. Contact Stephanie Saklad, M.A., ATR-BC, LCAT at ssaklad@montefiore.org for an appointment.

To Your Health! Wellness Portal: toyourhealth.montefiore.org
The Wellness Portal can be accessed at work or home and has multiple resources and programs, including stress management workshops and stretching exercises. Portal customer support is available at 888.252.8150.

Employee Assistance Programs

Non-1199 Carebridge Employee Assistance Program (EAP) provides non-1199 associates and their household members with telephonic and video, counseling and personal care services (such as assistance related to childcare or financial concerns), with the first 5 initial confidential sessions included. Call 844.300.5072 or visit www.myiferesource.com and use access code C4KN.

1199 Member Assistance Program provides 1199 associates with help such as treatment for drug, alcohol or mental health issues, and referrals to social service resources for problems with housing, domestic violence or legal issues. Provided through the 1199 Benefit Fund, the program can be reached at 646.473.6500 for more information.

- Teledoc Mental Health services for 1199 associates provides access to licensed counselors, psychologists or psychiatrist; for more information visit Teledoc.com.

Free External Meditation App and Resources
Headspace is providing free subscriptions to New Yorkers during the pandemic at: www.headspace.com/ny. Other free apps are also available for associates through their phone app stores, such as Insight Timer and Calm.

NYC & NYS Mental Health Resources
NYC Well can be reached 24 hours, 7 days/week by phone at: 1-888-NYC-WELL (1-888-692-9355), by texting “WELL” to 65173; or Chat at: https://nyowell.cityofnewyork.us/en/get-help-now/chat-with-a-counselor-now/.

NYS COVID Emotional Support Hotline: 1-844-863-9314, 8am-10pm, 7 days/week for mental health counseling
If you forget...

Go outside at 7pm
If you forget...

Look UP

Look DOWN
Listen to Alicia

CNN Coronavirus Town Hall (15 Videos)
We are #MonteStrong

We are strong at the broken places, COVID Warriors

We hold each other up

We do the hardest things

We save lives and heal, even in a pandemic

THANK YOU FOR BEING AMAZING!