An outbreak of acronyms: COVID-19 update
April 7, 2020
Marcel Behr, Matthew Cheng, Amal Bessissow
COVID and other acronyms

Disclosures

• Marcel Behr
  • I work on TB; I direct the COVID research lab

• Matthew Cheng
  • CIHR & MI4 funded clinical trial, cohort studies
  • Scientific advisor board GEn1E lifesciences

• Amal Bessissow
  • No conflict of interest
COVID and other acronyms
Overview

• Marcel Behr
  • Overview & Epidemiology

• Matthew Cheng
  • Management Guidelines & Trials

• Amal Bessissow
  • Working on a COVID ward

• Questions / Comments
Communicating about COVID-19

• Virus: SARS-CoV-2

• Disease: COVID-19

• Who is guiding us (i.e. sending mass emails)?
  • Federal: PHAC, NML
  • Province: MSSS, FMSQ, INSPQ....
Communicating about COVID-19

- **Virus:** SARS-CoV-2
  - Severe Acute Respiratory Syndrome CoronaVirus 2
- **Disease:** COVID-19
  - CoronaVirus Disease 2019

- **Who is guiding us (i.e. sending mass emails)?**
  - **Federal:** PHAC, NML
    - Public Health Agency of Canada; National Microbiology Laboratory
  - **Province:** MSSS, FMSQ, INSPQ....
    - Ministère de la Santé et des Services sociaux
    - Fédération des Motocyclistes de Sentiers du Québec
    - Institut national de santé publique du Québec

- To work well together, please spell out abbreviations and acronyms
# of cases:
- World: 1.3M
- Canada: 16k
- Quebec: 8.5k

# deaths:
- World: 70k
- Canada: 302
- Quebec: 121
Italy and Spain’s daily death tolls are plateauing, but in the UK and US every day brings more new deaths than the last.

Daily coronavirus deaths (7-day rolling avg.), by number of days since 3 daily deaths first recorded.

Source: FT analysis of European Centre for Disease Prevention and Control; Worldometers; FT research. Data updated April 05, 19:00 GMT

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Italy and Spain’s daily death tolls are plateauing, but in the UK and US every day brings more new deaths than the last.

“The virus doesn’t care if it’s March or April”

John Burn-Murdoch / @jburnmurdoch

https://youtu.be/54XLXg4fYsc
Italy and Spain's daily death tolls are plateauing, but in the UK and US every day brings more new deaths than the last.

Daily coronavirus deaths (7-day rolling avg.), by number of days since 3 daily deaths first recorded.
MUHC Antibiotic Guidelines: Management of COVID-19

• Input from Infectious Diseases, Respiratory Medicine, General Internal Medicine, ICU, Pharmacy

• Version 2.0 currently on the intranet, dated March 27, 2020

• Outpatients: Acetaminophen

• Inpatients: Acetaminophen + Recruit to Clinical Trials

• Why? Collective equipoise regarding potential benefit vs. harm
CATCO: Canadian Treatments COVID-19

• Multi-centre (20 for now; will expand to 150)

• Phase II, adaptive, randomized, open-label controlled trial

• In conjunction with the WHO SOLIDARITY trial
Treatment arms 1:1:1:1

- Lopinavir/ritonavir 400mg/100 mg PO BID x 14 days
- Hydroxychloroquine 800 mg PO BID x 1 day, then 400 mg PO BID x 10 days
- Remdesivir 200 mg IV x 1, followed by 100 mg IV daily x 9 days
- Optimized supportive care
Sample Size

• We don’t actually know

• Estimated at 4000 patients

• Interim results will be reviewed by global DSMB
Inclusion criteria

• Age > 18 years of age

• Hospitalized

• COVID-19
Recruitment

• Any member of the treating team can recruit the patient!

• Consent is obtained *orally*, without the need to sign ICFs

• Printed ICFs and information sheet will be available on every COVID ward, in the emergency department, and in the ICU

• Feel free to contact me anytime!
Other ongoing studies

• Post Exposure Prophylaxis / Early Treatment studies
  • PI: Todd Lee (todd.lee@mcgill.ca) & Emily McDonald (Emily.mcdonald@mcgill.ca)
  • Inclusion 1: Health Care Worker or Household Contact with Exposure
  • Inclusion 2: Symptoms < 4 days & COVID+ (or HCW with exposure)

• Genetic susceptibility to severe (idiopathic) COVID-19
  • PI: Dr. Don Vinh (donald.vinh@mcgill.ca)
  • Inclusion: Age < 55, no medical co-morbidities, admitted to hospital with COVID-19

• Epigenetic determinants of clinical outcome and treatment response
  • PI: Dr. Matt Cheng (matthew.cheng@mcgill.ca)
  • Inclusion: Participating in CATCO trial
MUHC COVID Units
Our experience to date

Amal Bessissow, MD MSC FRCPC FACP
General Internal Medicine
McGill University Health Center
April 7th, 2020
COVID Units – 14th floor/C4

- Opened on March 23rd
- One GIM/Resp attending
- 1-2 “pseudo-residents” in the day
- 1 “pseudo-resident” at night
- Nurse practitioners – as of March 30th

- Assistant head nurse
- Nurse educator
- Infection control nurse
Preparing the unit ...

• **Training**
  • Material
    • Admission guide
    • Admission order sheet
    • Discharge check list

• **Personnel**
  • Donning and Doffing
  • Practice change (e.g., pairing nurses for each patient)
  • Minimize unnecessary exposure
  • Housekeeping intervention frequency
  • Ensure no visitor policy
Preparing the unit …

• Adapting the environment
  • Alcohol dispenser inside rooms
  • Create widows in room door
  • Functioning phones in all rooms
  • Ensuring enough PPE
  • Space allocation to allow 2 meters between HCW
A typical day

• Sign over from overnight “pseudo-resident”
• Review nurses’ assessments
• Assess patients via phone and assess through window  
  • If necessary, bedside assessment
• Admission of new patients
• Discharge planning  
  • To start as soon as patient admitted
• Connect with public health
• Connect with ICU attending about sicker patients
• Connect with ER GIM and r/o COVID unit attending for possible admissions.
Which patient are admitted on COVID ward?

**MUHC guidelines**

**Recommended Admission Criteria (use clinical judgment)**

- **Respiratory criteria:**
  - Dyspnea at rest or during minimal activity (sitting, talking, coughing, swallowing), *OR*
  - Respiratory rate > 22/min, *OR*
  - PaO2 < 65mmHg or O2Sat < 90%, *OR*
  - Infiltrate on CXR (worsening CXR if baseline abnormal)

- **Non-respiratory criteria (Patient may progress to LRTI):**
  - Systolic BP<100 or signs of sepsis/septic shock *OR*
  - Altered mental status, *OR*
  - Hematopoietic Transplant recipients (HSCT) with high Immunodeficiency Scoring Index ISI*, *OR*
  - Uncontrolled HIV with CD4<200

**On the ground reality**

- **Patients fulfilling MUHC guidelines**

- **Patients with disposition issue**
  - E.g., private residence, CHSLD with no facility to isolate COVID patient, CHSLD with wandering patient and unable to keep in room, homeless patient unable to be in quarantine, etc.
Some numbers – MGH COVID Unit (as of March 23)

- # Admission: 14
- # Admission from ICU: 1
- # Discharge: 7
- # Transfer to ICU: 0
- # Death: 0
- Average length of hospital stay: 5 (although many patients still admitted since March 23)
Collaborative effort

• “Pseudo-resident” from different speciality backgrounds stepping up to the challenge to care for inpatient.

• Nurses with various experiences (clinics, PACU, etc.).

• Multidisciplinary health care workers help.

• Consultant support (non GIM/resp medical subspecialist, surgery, psychiatry, etc.).
Challenges

• Stay up to date with frequent changes in guidelines/recommendations
  • Infection control
  • Pharmacologic management

• Updated Level of interventions for all patients before admission

• Discharge issue within the community

• Communication between patients and their family
  → NEW: iPad will be available soon to COVID patients to video chat with family.

• Broad patient population (e.g., acute psychosis, acute cholecystitis, 3rd trimester pregnancy)

• Managing anxiety regarding “being outside our comfort zone” and the “unknown” course of events.
Key messages

• Remain informed
• Remain calm
• Remain flexible

• Good communication is crucial.

• Respect recommendations (regardless of your position)

• STAY CAUTIONOUS!!

• ”We are all in it together”
COVID-19: Thank you!
Questions?

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