Academy of Consultation-Liaison Psychiatry Virtual Forum:

Consultation-Liaison Psychiatry in the Era of the COVID Pandemic

May 30 2020
12:00-2:00pm EST

*Our moderators and our panel of speakers have no conflicts of interest to disclose except for those explicitly shared by each individual speaker during the course of the virtual forum

ACADEMY OF CONSULTATION-LIAISON PSYCHIATRY
Psychiatrists Providing Collaborative Care Bridging Physical and Mental Health

Moderators:

Maryland Pao MD
Clinical & Deputy Scientific Director, National Institutes of Mental Health, National Institutes of Health
Bethesda, Maryland

Paul Desan MD, PhD
Director of Psychiatric Consultation Service
Director of Consultation-Liaison Psychiatry Fellowship Program
Assistant Professor of Psychiatry, Yale University

Objectives:

- Discuss successes, challenges and key lessons related to COVID-19 and its impacts on consultation-liaison psychiatric care both currently and in the future
- Review innovations in care delivery and telehealth in response to the COVID-19 pandemic
- Discuss stress first aid, psychological first and other means of supporting wellness in the setting of the current health crisis

Outline

- Introduction of Forum and Speakers
- Brief Remarks from the ACLP President
- Psychiatric Care in the Setting of the Pandemic
- Clinical Management Strategies and Consultation Psychiatry Practices
- Administrative and Clinical Service Delivery Considerations
- Leveraging Telehealth and Technology in the Age of the Pandemic
- Stress First Aid and Psychological Trauma in the Health System
- Brief Synopsis and Key Points

Virtual Forum Logistics

Go to Webinar:

- All participants will be silenced during the forum
- **Questions should be sent through the chat function and shared by the moderator at specified times during the webinar**
  - **We will not be using the hand-raising functioning**
- Due to time limitations, not all questions may be answered
- Slides will be posted, along with webinar recording, to the ACLP website in the following week

President's Address

Michael Sharpe MD

ACLP President

Psychiatric Care in the Setting of the Pandemic

Damir Huremovic MD, MPP, FAPA, FACLP
Assistant Professor
Donald and Barbara Zucker School of Medicine at Hofstra/Northwell

Introduction

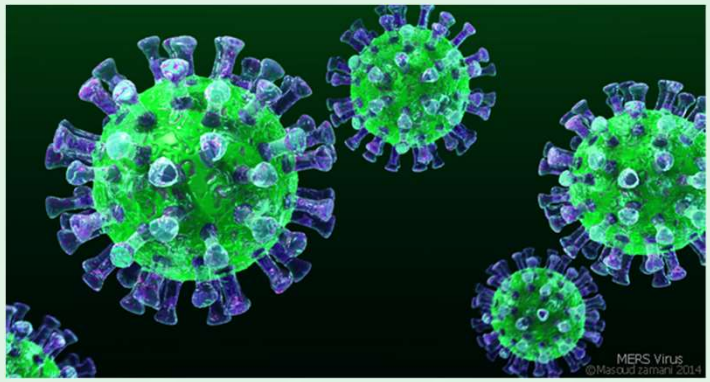
- Catastrophic pandemics have been occurring at regular intervals throughout human history, with the last one (Spanish flu pandemic of 1918) taking place a century ago.
- While pandemics have significantly affected the course of humanity and even the development of modern psychiatry itself, psychiatry, on its part, has given such events little consideration until now.
- Our mental health resources and research have largely been focused on infectious diseases that impose significant public health burden on the given society (e.g. in the US those are slowly spreading infections - HIV or Hepatitis C).
- When rapid outbreaks occur, mental health response is by default undertaken as a mental health response to a disaster.
- Pandemic and epidemic outbreaks, however, have some crucial idiosyncrasies that make their mental health aspects unique and best handled by C-L Psychiatry, implying that C-L psychiatrists should be the champions of fashioning a mental health response in such outbreaks

Unique Features of Pandemics

- Time lag - pandemic outbreaks have predictable epidemiological models that allow reasonable time for planning and preparation as the pandemic progresses.
- Burden on caregivers - health workers in pandemic outbreaks are both at increased risk for infection and at risk for emotional trauma and traumatic distress.
- Burden on facilities and healthcare system - facilities may transform from points of care to nodes of transmission.
- Quarantine and isolation.
- Psychiatric sequelae of having the illness and surviving the illness, its complications, or complications associated with treatment.
- Public perception, fears, expectations, and misconceptions result in a process that epidemiologically often mirrors the epidemiology of the infectious disease itself

MERS – CoV – A Known Example of a Coronavirus Disease

- Known as the “Camel flu”
- This coronavirus originated from Egyptian tomb bats
- First case in 2012.
- 2,500 cases worldwide. Outbreaks:
  - Saudi Arabia (2014, 2019)
  - South Korea (2015)
- Cluster sources - hospitals
- No vaccine or specific treatment (vaccine in phase Ib)
- CFR 36 percent (>1 in 3)



- Respiratory infection can lead to acute respiratory distress (3 out of 4 cases require mechanical ventilation) and AKI
- Leukopenia, severe lymphopenia

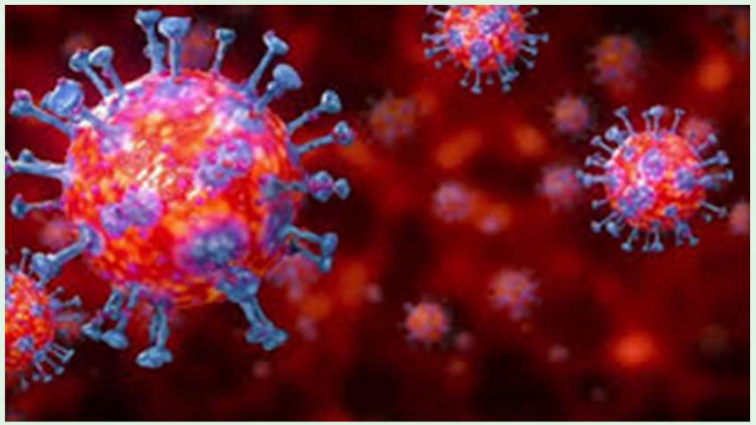
Disease X

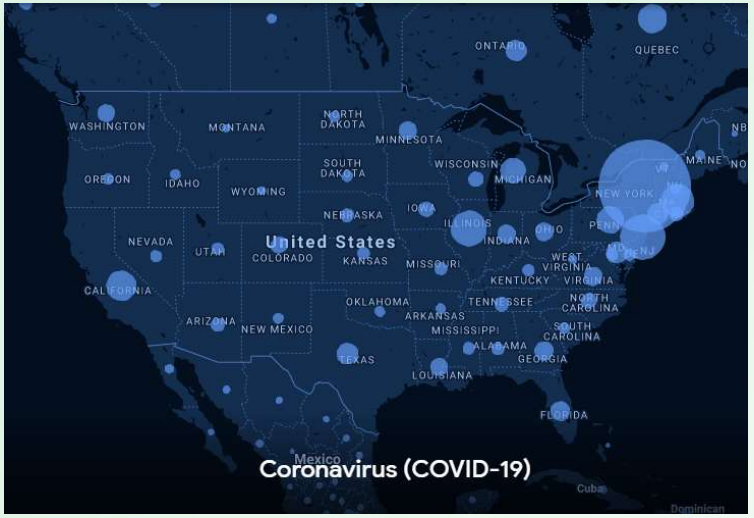
- WHO panel tracks and speculates on the source of the next pandemic
- Renders a blueprint for global action in case of a major outbreak of a known or an unknown agent
- WHO instituted a global coalition of experts in the field to estimate the scope and the magnitude of the problems and develop a plan of action
- Current WHO global panel does not include mental health specialists

- Disease X candidates:
  - Crimean-Congo hemorrhagic fever (CCHF)
  - Ebola virus disease and Marburg virus disease
  - Lassa fever
  - Middle East respiratory syndrome coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS)
  - Nipah and henipa viral diseases
  - Zika

SARS-CoV-2 and COVID-19 Pandemic

- Started in Wuhan (Hubei, China) in December 2019
- Designated by WHO as a pandemic March 11
- Affected nearly all countries in the world (200+)
- Approaching 6 million confirmed cases
- Over 350,000 deaths





SARS-Cov-2 and COVID-19 in the US

- Registered in the US in January (Washington State)
- End of May – 1.75 million confirmed cases (a third of global cases)
- Over 100,000 dead
- New York State – approaching 400,000 cases and 30,000 dead
- Metro NYC most of the cases in the state

- True Case Fatality Ratio (CFR) still unknown – initially 2-3 percent, now revised to 0.3 percent
- COVID-19 more widespread than originally thought (20 percent in NYC, over 40 percent in some communities)
- 12.2 percent of healthcare workers in NY Downstate area
- Over 80 percent of confirmed cases did not require hospital treatment
- Less than 20 percent require oxygen
- Less than 5 percent require ICU

Rapidly Spreading Pandemics

- Unlike most disasters, pandemic outbreaks have predictable epidemiological models (stochastic and deterministic compartmental mathematical models)
- Such models allow reasonable time for planning and preparation as the pandemic progresses and can identify more vulnerable or resilient populations
- Perceived risk and uncertainly can generate a significant concern or panic in population
- Health workers in pandemic outbreaks are at increased risk for infection and work under considerable stress
- Healthcare facilities can:
  - Become overwhelmed and
  - Become the nodes of transmission
- Risk for bioterrorism

A Black Box full of Unknown Variables

- A rare research from 2004 (“Redefining Readiness”) suggests that the general population may not react to a public health crisis in the manner anticipated by emergency management professionals.
- Unanticipated behavior can complicate the management of a disaster situation and lead to higher rates of long-term mental health problems
- Americans are twice more worried about smallpox vaccine than about contracting smallpox themselves (in an imagined scenario)
- Contagion exists as a psychological concept – emotional epidemiology
- Panic is related to the perception that there is a limited opportunity for escape, a high-risk of being injured or killed, or that help will only be available to the very first people who seek it.

Effect of a Pandemic on Existing Mental Patients

- Individuals with pre-existing mental health issues may experience setbacks, relapses, and impairment of function
- Patients with anxiety disorders may experience worsening of their symptoms (paradoxically may lead to proactive, protective behaviors)
- With increased strain on the society, patients encounter obstacles to care (in case of travel bans or isolation)
- With breakdown in social services during a severe pandemic, or during severe precautions, mental health system is at risk of falling apart
- Insufficient specialized services for the increase in need (e.g. counseling for survivors or bereavement counseling for the relatives)

Effects of a Pandemic on Healthcare Personnel

- Approaching pandemic puts a strain on healthcare professionals
- Their primary concerns are:
  - Increased workload
  - Safety of their families
  - Own safety
- Anxiety among healthcare workers precedes that of general public
- Healthcare workers may tend to UNDERESTIMATE and DOWNPLAY the seriousness of a pandemic (this changes if they have small children at home)
- 10 percent develop traumatic stress, more have some symptoms of depression or traumatic stress (up to 50 percent in in China during COVID-19 outbreak in 2020)

Effects of a Pandemic on Healthcare Facilities and Communities

- Facilities:
  - Preparing for a possible pandemic outbreak requires significant financial, material, and human resources
  - Shifting priorities may affect other aspects of care or other projects (e.g. lapse in care for all non-urgent, non-critical patients)
  - Liaison with local authorities, local and state health departments, and regulatory agencies becomes a priority
  - Education and training play a big role
  - Psychosocial and mental health component are often overlooked
  - There is never enough time!
- Communities:
  - Lack of information and rumors tend to incite anxiety and panic (2.3 percent Americans claim they have COVID-19)
  - Shortages of various kind may take place
  - Major disruptions in society can happen in an advancing pandemic
  - Different populations and cultures may have different ways of understanding the scope and the nature of the pandemic and have idiosyncratic ways of preparing
  - Attitudes towards immunization come into play – including safety and availability

Quarantine and Isolation

- **Isolation:**
  - Patients in isolation can experience despair and hopelessness
  - Patients in isolation tend to receive less face time with providers than non-isolated patients
  - They perceive or are being stigmatized, even by the healthcare personnel
  - Intense suffering may serve as a foundation for trauma and PTSD
  - Delirium – first descriptions of delirium (Hippocrates) likely referred to delirium in infectious diseases (Adamis et al. 2007)

- **Quarantine:**
  - Imposes significant psychological, social, and economic toll on individuals and communities.
  - Prolonged isolation and separation from families and their community can have profound effect on quarantined individuals.
  - Quarantine in Toronto during SARS was associated with 30 percent rate of PTSD and depression.
  - Being quarantined can result in social stigma during and well after the isolation is over

Mental Health and Quarantine

- Being in quarantine is associated with high degree of personal distress:
  - Loneliness and boredom
  - Social deprivation and loss of social utility
  - Loss of control
  - Anxiety and worry about own health and health of the loved ones
  - Irritability
  - Insomnia
  - Depression
  - Anger and acting out
- Most likely to break or defy quarantine orders:
  - Teenagers and
  - Healthcare workers

Skill Sets To Develop

- Psychiatric care for patients in isolation (inpatients with an active or suspected infection)
- Support for the families of the patient with illness or deceased from the illness
- Support for the quarantined (healthy) individuals and groups
- Support for healthcare personnel
- Participation in the development and activation of contingency preparedness plans
- Working with the public and with affected communities – understanding emotional epidemiology (Ofri) and emotional contagion
- Unique features of this pandemic:
  - A significant exposure risk for population and providers alike, including mental health providers
  - Unprecedented social disruption due to measures imposed after the GLOBAL FAILURE to CONTAIN

Challenges to Delivering C-L Psychiatric Care During Pandemic

- Dual objective of maintaining coverage as close to original service setup as possible, while maintaining flexibility to:
  - Address the massive shift in patient population and mental health needs within the system
  - Identify COVID-19 associated neuropsychiatric and psychiatric sequelae and formulate treatment approach within constraints (ranging from medication interactions to medication shortages)
  - Protect personnel from contracting COVID-19 themselves
  - Provide support to healthcare personnel at your facility
  - Be a resource to your institution
  - Be a resource to your Department
  - Maintain (graduate) medical education while ensuring the safety of your trainees
  - Maintain research and academic work
  - Serve as an advocate for your colleagues and patients (both medical and psychiatric)
  - Optional: serve as a resource to your local or broad community

C-L Psychiatric Care during the COVID-19 Pandemic

- Stay appraised of clinical developments, both globally and locally (there are currently ~750 clinical research projects on COVID-19 under way worldwide)
- Trust your body of knowledge and available evidence – there is NO strong evidence-based standard of care as of this time; focus on do NOT harm
- Think globally, but act locally – there are NO one-fit-all approaches and solutions yet to many problems, your situation may be, and likely is, unique
- Remember that L stands for LIAISON; it is next to impossible to do Teleliaison for a prolonged period of time, your place is next to your colleagues whenever reasonably possible
- Understand that you may be the in best position to advocate for your colleagues' mental health and wellbeing – 'meta-liaison' work with administration
- C-L Psychiatrists should consider a more active advocacy role in this pandemic, because there will be a NEXT one (this one is best understood as a 'warning shot').

Clinical Management Strategies and Consultation Psychiatry Practices

Consultation-Liaison Psychiatry in the Era of the COVID Pandemic: Delirium in the Critically Ill Cancer Patients with COVID-19

Yesne Alici, M.D.

Associate Professor of Clinical Psychiatry

Memorial Sloan Kettering Cancer Center

Weill Cornell Medical College

Outline

- Cancer and COVID-19
- Delirium in the critically ill
- Developing the initial sedation and delirium management guidelines
- Revision of the guidelines
- Close collaboration with the critical care teams
- Summary

Cancer and COVID-19

- Cancer patients are at increased risk of hospitalization, respiratory failure, and mortality.
- Reports from China> FIVE TIMES increased risk of mortality among cancer patients with COVID-19
- Reports from Italy> TWENTY PERCENT of COVID-19 deaths were reported among patients with active cancer
- Experience at Memorial Sloan Kettering Cancer Center

Delirium in the Critically Ill Patients with COVID-19

- WE WERE HEARING
  - Patients waking up severely agitated
  - Requiring physical restraints
  - Patients not responsive to dexmedetomidine, antipsychotics
  - Prolonged QT
  - Medication shortages
  - PPE supply shortages
  - Medical staff shortages

- WE HAVE TO DEVELOP DELIRIUM MANAGEMENT GUIDELINES

Adult Sedation and Delirium Management Guidelines- First Version

- To be used by critical care APP's, fellows
- Critical Care, Psychiatry, Pharmacy

	Preferred	Alternative
Initiation Phase (first 24-48h post-intubation)	• Fentanyl IVCI (start at 25 mcg/hr, ↑25-50 mcg/hr q10min) • Propofol IVCI (Start at 5 mcg/kg/min, ↑5-10mcg/kg/min q5min)	• Hydromorphone IVCI (start at 0.4 mg/hr or 75% of converted fentanyl dose, ↑0.2 mg/hr q10min) ○ 1 mg IV hydromorphone = 100 mcg IV fentanyl • Morphine IVCI (if no renal failure; start at 2 mg/hr, ↑1 mg/hr q10min) • Midazolam IVCI (Start at 1-4 mg/hr, ↑1 mg/hr q5min)
Maintenance Pha… (Target RASS –3 to -…)	• Fentanyl patch at 75% rate of IVCI (overlap IVCI for 8-12 hours) • PRN fentanyl for nursing care • Oral hydromorphone 4-8 mg q6h • Midazolam IVCI as noted in the initiation phase • Oral or IV lorazepam intermittent (start at 2 mg q6h) • Start quetiapine at 12.5mg po/NGT q12h • Titrate quetiapine by 25-50 mg/day up to 200 mg/day	• Oral oxycodone 5-10 mg q6h • Hydromorphone IVCI as noted in the initiation phase • Morphine IVCI as noted in the initiation phase • Lorazepam IVCI (start at 1 mg/hr and ↑0.5 mg/hr q15min) • Haloperidol 0.5 mg IV q8h • Titrate haloperidol by 1 mg/day up to 5 mg daily OR • Start olanzapine at 2.5mg po/NGT q12h • Titrate olanzapine by 2.5-5 mg/day up to 10 mg/day
De-escalation Phase (FiO2 0.5 and PEEP +10)	• Fentanyl IVCI (wean by 25 mcg/hr daily or q12h) • Remove fentanyl patch at least 12 hours prior to anticipated extubation • Dexmedetomidine IVCI (start at 0.2-0.4 mcg/kg/hr, ↑0.1 mcg/kg/hr q30min) • Continue/titrate quetiapine as noted in the **Maintenance Phase**.	• Hydromorphone IVCI (wean by 0.2-0.4 mg/hr daily or q12h) • Propofol IVCI as noted in the initiation phase • Continue/titrate haloperidol OR olanzapine as noted in the Maintenance Phase.
Post-Extubation	• If patient is not agitated for 12 to 24 hours, reduce antipsychotic gradually. • Discontinue antipsychotic before discharge or shortly after.	• If patient is not agitated for 12 to 24 hours, reduce antipsychotic gradually. • Discontinue antipsychotic before discharge or shortly after.

Updated Adult COVID-19 Sedation and Delirium Management Guidelines

	Preferred	Alternative (In consultation with Psychiatry)
Initiation Phase (first 24-48h post-intubation)	• Propofol IVCI (Start at 5 mcg/kg/min, ↑5-10mcg/kg/min q5min) • Fentanyl IVCI (start at 25 mcg/hr, ↑25-50 mcg/hr q10min)	• Hydromorphone IVCI (start at 0.4 mg/hr or 75% of converted fentanyl dose, ↑0.2 mg/hr q10min) ○ 1 mg IV hydromorphone = 100 mcg IV fentanyl • Midazolam IVCI (Start at 1-4 mg/hr, ↑1 mg/hr q5min)
Maintenance Phase (Target RASS –2 to –3)	• Propofol IVCI as noted in the initiation phase • Continue fentanyl as above and add PRN fentanyl for nursing care related pain • Dexmedetomidine IVCI (start at 0.2-0.4 mcg/kg/hr, ↑0.1 mcg/kg/hr q30min) • Start quetiapine at 12.5mg po/NGT q12h • Titrate quetiapine by 25-50 mg/day up to 200 mg/day	• Hydromorphone IVCI as noted in the initiation phase • Midazolam IVCI (Start at 1-4 mg/hr, ↑1 mg/hr q5min) • Haloperidol 0.5 mg IV q8h • Titrate haloperidol by 1 mg/day up to 5 mg daily
De-escalation Phase (FiO2 0.5 and PEEP +10)	• Fentanyl IVCI (wean by 25 mcg/hr daily or q12h) • Dexmedetomidine IVCI (start at 0.2-0.4 mcg/kg/hr, ↑0.1 mcg/kg/hr q30min) • Continue/titrate quetiapine as noted in the **Maintenance Phase**.	• Hydromorphone IVCI (wean by 0.2-0.4 mg/hr daily or q12h) • Propofol IVCI as noted in the initiation phase • Continue/titrate haloperidol as noted in the Maintenance Phase.
Post-Extubation	• If patient is not agitated for 12 to 24 hours, reduce antipsychotic gradually. • Discontinue antipsychotic before discharge or shortly after.	• If patient is not agitated for 12 to 24 hours, reduce antipsychotic gradually. • Discontinue antipsychotic before discharge or shortly after.

Updated Adult COVID-19 Sedation and Delirium Management Guidelines- Cont'd

- **Daily EKG or QTc for ALL patients.**
- Exercise caution when up titrating medications for **geriatric patients**
- If using **benzodiazepines for over a week, taper gradually.**
- **Consult Psychiatry if:**

1) agitation/delirium cannot be managed with above recommendations,
2) patient is a danger to self or staff or is in physical restraints,
3) side effects develop (rigidity, akathisia, QTc prolongation), or
4) patient has history of Parkinson's disease, parkinsonism, dementia, schizophrenia, intellectual disability, or bipolar disorder.

Working With Critical Care Teams

- Twice daily check in emails with all floor nurse leaders
- Daily report of COVID-19 patients on antipsychotics, BZDs, fentanyl, propofol, ketamine
- Telemedicine
- A few consults of concern

- WE HAVE TO LIASE MORE CLOSELY

Embedding C-L Fellows to Critical Care Teams

- C-L fellows assigned to each one of the 5 critical care teams (April 27th)
- C-L fellows: Daily check in with critical care teams, rounds, review of patient lists, disseminate the guidelines, consult on patients of concern
- C-L fellows: QI project, lectures from critical care attendings
- One C-L attending supervising all cases
- C-L Attending: Weekly check in with critical care attendings, review of patient lists, disseminate the guidelines, staff all patients in person

Summary

- **What went well**
- **Anticipated and unanticipated challenges**
- **Lessons learned**
- **Considerations for the future**

Still Agitated

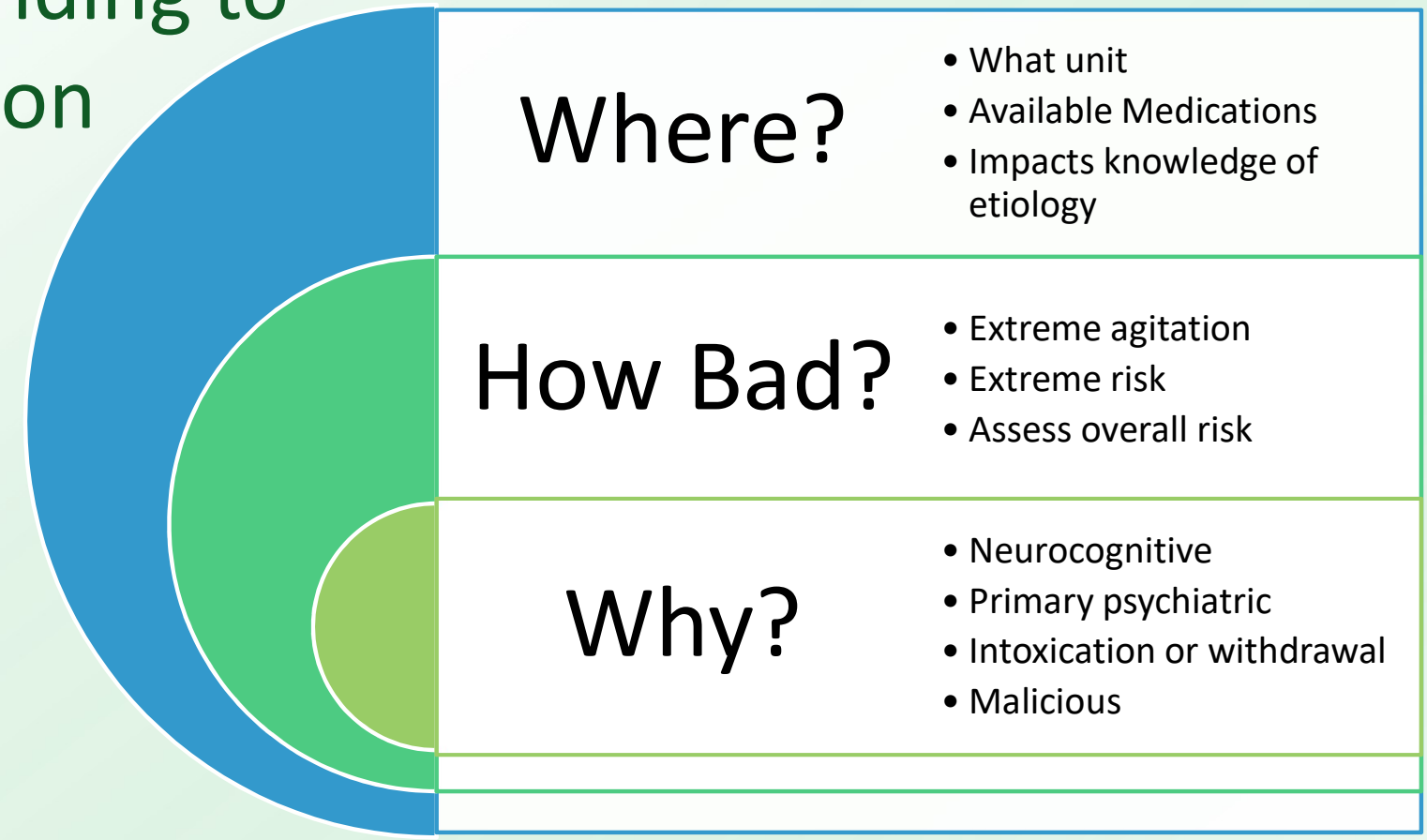
Lisa J. Rosenthal, MD, FACLP, DFAPA
Associate Professor
Department of Psychiatry and Behavioral Sciences
Northwestern University, Feinberg School of Medicine

Disclosures: Lisa J. Rosenthal, MD, FACLP

Company	Gilead				
Employment					
Management					
Independent Contractor					
Consulting					
Speaking & Teaching					
Board, Panel or Committee Membership					

I receive 5% salary support for participation in a research grant sponsored by Gilead,
Though this is not a standard disclosure and does not fit any boxes above

Responding to Agitation Basics



And first, do no harm

Educate About Stigma

- "'Chemical Restraint'

  is tear gas and mace."
  - Keira Chism, MD

- Evidence-based use of medications for therapeutic purpose
- Non-psychiatrists tend to: overemphasize risk of medications and underestimate risks of agitation and psychiatric illness

Northwestern Medicine COVID-19 ICU Sedation Guidance

ACTIVE PHASE

Fentanyl bolus + infusion*
Intermittent: 25-100 mcg IV push q15min prn
Infusion: 25-300 mcg/hr titrated by 25-50mcg/hr q15min (with bolus)
*transition to PO opioid as soon as feasible

Serotonin Syndrome
Tachyphylaxis

Hydromorphone bolus + infusion*
Intermittent: 0.5-2 mg IV push q15min prn
Infusion: 0.5-5 mg/hr titrated by 0.5 mg/hr q15min (with bolus)

Morphine bolus + infusion*
Intermittent: 2-4 mg IV push q1hr prn
Infusion: 1-10 mg/hr titrated by 1 mg/hr q30min (with bolus)
*transition to PO opioid as soon as feasible

Propofol Contraindication

Propofol
Infusion: 10 mcg/kg/min titrated by 5-10 mcg/kg/min q2min

HyperTG, PRIS, Pancreatitis

Vent dyssynchrony/ agitation

Midazolam (low dose)
Intermittent: 1-5 mg IV push q15min prn (increase by 2 mg each push if needed)
Infusion: 5-25 mg/hr titrated by 5 mg/hr q30min (with bolus)

Vent dyssynchrony/ agitation

Agitation

Antipsychotics
Haloperidol 2-5 mg PO/IV q6-8h plus 2-5 mg PRN, Max 20mg/day
Quetiapine 100 mg PO BID, Max 400 mg/day
Olanzapine 5-10 mg PO/IM/SL QD-BID, Max 20 mg/day

Ketamine
Intermittent: 0.2-0.5 mg/kg q30min prn (increase by 0.1-0.2 mg/kg each push if needed)
Infusion: 2.5-30 mcg/kg/min titrated by 2.5-5 mcg/kg/min q30min (with bolus)

Vent dyssynchrony/ agitation

Midazolam (high dose)
Infusion: can be titrated to 1 mg/kg/hr IBW titrated by 10mg/hr q15-30min (with bolus)

TRANSITION PHASE

Antipsychotics
Haloperidol 2-5 mg PO/IV q6-8h plus 2-5mg PRN, Max 20mg/day
Quetiapine 100mg PO BID, Max 400 mg/day
Olanzapine 5-10mg PO/IM/SL QD-BID, Max 20 mg/day

Dexmedetomidine
IV Infusion: 0.2-1.5 mcg/kg/hr titrated by 0.1 mcg/kg/hr q30min +/-
Clonidine
0.1mg PO/PT TID titrated up to 0.3mg PO/PT TID
OR
Guanfacine
1mg PO/PT BID, Max

Propofol
Infusion: 10 mcg/kg/min titrated by 5-10 mcg/kg/min q2min

Valproic Acid
Load IV: 20-30mg/kg
Maintenance PO/IV: 500-750mg q6h

Phenobarbital
Load IV: 5-10 mg/kg
Maintenance IV/PO: 1-2 mg/kg/day divided BID
Breakthrough: 65-130 mg IV push q1-2hrs prn

Gabapentin
600mg PO/PT TID

Trazodone
50mg PO/PT qHS for sundowning or

***Transition to PO opioids**
(general dose ranges)
Oxycodone 5-20 mg PO q4-6hr +/- PRN
Hydromorphone 2-4 mg PO q4-6hr +/- PRN
Morphine 5-30 mg PO q4hr +/- PRN

When adjunctive agents are initiated and titrated up, the previous sedation infusions should be titrated down.
For additional details regarding agent selection, titration parameters, contraindications, and monitoring, refer to COVID-19 Sedation Initiation and Weaning Guidance.

Northwestern Medicine COVID-19 ICU Sedation Guidance

TRANSITION PHASE	**Antipsychotics** **Haloperidol** 2-5 mg PO/IV q6-8h plus 2-5mg PRN, Max 20mg/day **Quetiapine** 100mg PO BID, Max 400 mg/day **Olanzapine** 5-10mg PO/IM/SL QD-BID, Max 20 mg/day	**Dexmedetomidine** IV Infusion: 0.2-1.5 mcg/kg/hr titrated by 0.1 mcg/kg/hr q30min +/- **Clonidine** 0.1mg PO/PT TID titrated up to 0.3mg PO/PT TID OR **Guanfacine** 1mg PO/PT BID, Max		**Valproic Acid** Load IV: 20-30mg/kg Maintenance PO/IV: 500-750mg q6h

* Don't forget the levocarnitine with VPA

COVID-19 Agitation (A Case)

- 37 year old man, COVID 19 + with severe agitation despite improvement COVID parameters
- Many current hypotheses about etiology of severe delirium caused by SARS-COV-2
  - Direct viral effect in the CNS and stroke
  - Cytokine Release Syndrome
  - Polypharmacy
  - Hypoxia
  - All the other factors associated with delirium, including neuronal aging, social isolation, circadian disruption, renal and hepatic injury, etc

Helms J, et al. *N Engl J Med*. 2020;NEJMc2008597

COVID-19 Agitation (A Case)

- Day of consult summary:
  - Covid pneumonia and ARDS complicated by difficult to control agitation leading to vent desynchrony. Febrile requiring standing acetaminophen and Arctic sun. Using COVID Sedation Protocol
  - Maximum doses of midazolam (70mg/hr)
  - Ketamine (40mcg/kg/min)
  - High dose hydromorphone (10mg/hr)
  - Loaded with phenobarbital (130 q6 3d ago, and infusions of 65 IVP)
  - Intermittent cisatracurium (paralytic)
  - Propofol had to be discontinued due to hypertriglyceridemia
  - Dexmedetomidine was also briefly attempted (prior to propofol)
- Trial VPA and haloperidol

VPA for agitation in the ICU

- VPA may increase presynaptic GABA levels and induce its release
  - Highly protein bound: free fraction may be elevated in the setting of hypoalbuminemia, uremia, medications
  - Complex hepatic metabolism
  - hepatotoxicity, pancreatitis, thrombocytopenia, and hyperammonemia
    - all of these could be complicated further by SARS COV2, including risk of stroke

- Gagnon DJ, et al. Pharmacotherapy. 2017;37(10):1309-1321. doi:10.1002/phar.2017
- **Bourgeois JA**, Koike AK, Simmons JE, Telles S, Eggleston C. Adjunctive valproic acid for delirium and/or agitation on a consultation-liaison service: a report of six cases. J Neuropsychiatry Clin Neurosci 2005; 17(2):232– 8.
- **Sher Y**, Miller AC, Lolak S, Ament A, Maldonado JR. Adjunctive valproic acid in management-refractory hyperactive delirium: a case series and rationale. *J Neuropsychiatry Clin Neurosci* 2015; 27(4): 365– 70.
- Gagnon DJ, Fontaine GV, Smith KE, et al. Valproate for agitation in critically ill patients: a retrospective study. J Crit Care 2017;37:119–25.

VPA and JJ Rasimas

- **Off-label VPA recommendations taken from Dr JJ Rasimas for refractory agitation in the ICU:**
- VPA - no dopamine antagonism, no QT impact or EPS
- Hypermetabolic state of critical illness and VPA is an oxidizable fatty acid, thus dosing should be divided and higher than norm
- IV load of (roughly 30 mg/kg) over 1 hour
  - QID dosing of 500-750mg IV to begin within 6 hours of the load (or more rapid liquid VPA via GT)

JJ Rasimas, et al. "Aggravated About Agitation II: Epidemiology and Treatment of Agitation in Special Populations." Friday, November 15 . Workshop presentation at the 66th Annual Meeting, The Future of the Subspecialty. November 13-16, 2019. San Diego, California

VPA and JJ Rasimas

Off-label VPA recommendations taken from Dr JJ Rasimas for refractory agitation in the ICU:

- VPA can interfere with urea cycle function
  - give levocarnitine 500-1000 mg PO/IV TID
    if patient requires bowel regimen, consider lactulose
- Trough serum [VPA] 48 hours after beginning treatment
- Mild hepatic impairment ok due to short duration of treatment
- VPA is an inhibitor of P450 2C9, and can cause increased sedation with fentanyl
- Consider checking NH3 and lipase within 48 hours of initiation

JJ Rasimas, et al. "Aggravated About Agitation II: Epidemiology and Treatment of Agitation in Special Populations." Friday, November 15 . Workshop presentation at the 66th Annual Meeting, The Future of the Subspecialty. November 13-16, 2019. San Diego, California

COVID-19 Agitation (A Case)

After 24 hours, VPA level checked with NH3

- NH3 = 121

Developed priapism and antipsychotics could no longer be used

- MRI = scattered foci of supratentorial white matter T2/FLAIR hyperintense signal – tap benign and thought to be general inflammatory response
- Waxing and waning agitation and associated vent dyssynchrony; tmax 100 – 102
- Ketamine 30, versed 45, propranolol 60 q8h (also priapism so d/c), PRN hydromorphone pushes

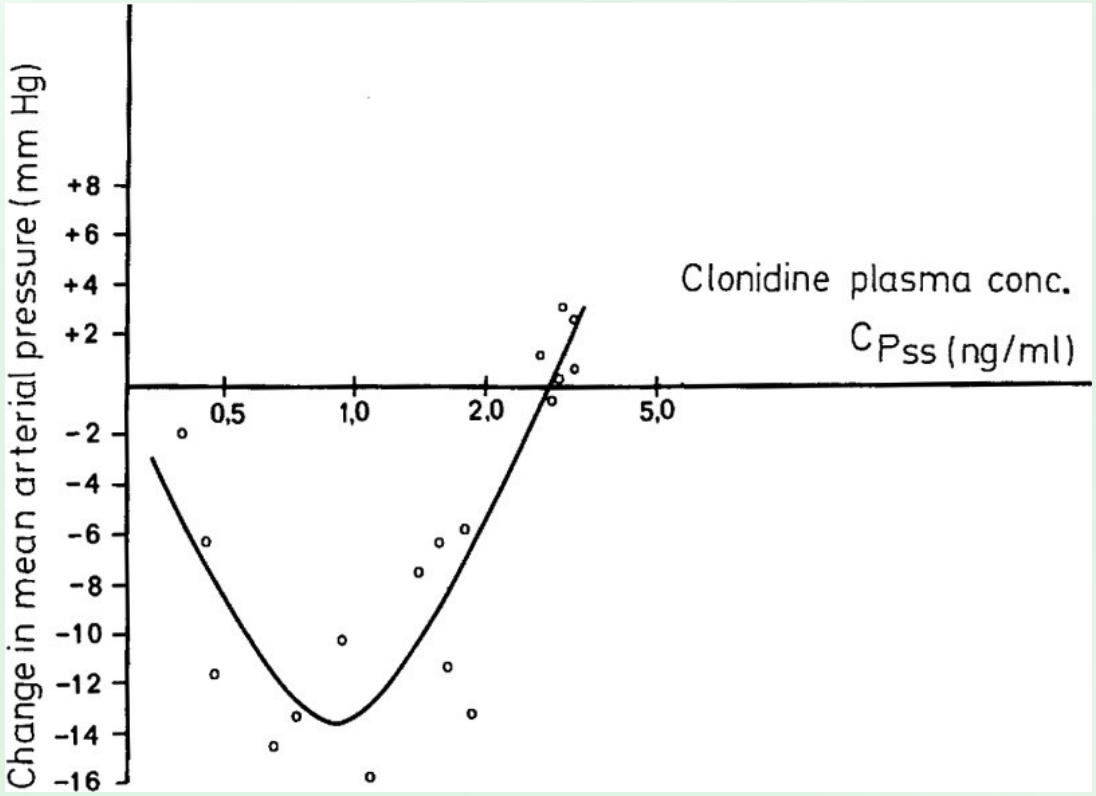
Initiated dexmedetomidine and Clonidine 0.3 q 8

Clonidine

- Central α2-adrenoreceptor agonist
- Reduces sympathetic outflow from the CNS and creates sedation and anxiolysis
- Dexmedetomidine, also α2-adrenoreceptor agonist with different selectivity, has similar effect
- Reduces analgesic requirements
- Two studies demonstrated use of clonidine to transition off of dexmedetomidine
- 0.1 - 0.3 mg tid (patch delayed onset 12-24 hours) (study max 0.5)

- Terry K, Blum R, Szumita P. Evaluating the transition from dexmedetomidine to clonidine for agitation management in the intensive care unit. SAGE Open Med 2015;3:2050312115621767.
- https://emcrit.org/pulmcrit/ketadex/
- Gagnon DJ. Transition from dexmedetomidine to enteral clonidine for ICU sedation: an observational pilot study. Pharmacotherapy. 2015 Mar;35(3):251-9.
- Gagnon DJ, Fontaine GV, Riker RR, Fraser GL. Repurposing Valproate, Enteral Clonidine, and Phenobarbital for Comfort in Adult ICU Patients: A Literature Review with Practical Considerations. Pharmacotherapy. 2017;37(10):1309-1321.

Repurposing Valproate, Enteral Clonidine, and Phenobarbital for Comfort in Adult ICU Patients: A Literature Review with Practical Considerations



Gagnon DJ, Fontaine GV, Riker RR, Fraser GL. Pharmacotherapy: The Journal of Human Pharmacology and Drug Therapy, Volume: 37, Issue: 10, Pages: 1309-1321

Clonidine and guanfacine - Maldonado

Table 6
Centrally acting alpha-2 adrenergic receptors agonists

Drug	Alpha-2 or alpha-1 Selectivity	dT ½	eT ½	Product Availability	Bioavailability	Protein Binding
Guanfacine	2640	2.5 h	17 h	po	~100%	70%
Dexmedetomidine	1600	6 min	2 h	IV	70%–80%	94%
Medetomidine	1200	—	—	—	—	—
Clonidine	220	11 min	13 h	po TDS IV	100% po 60% TDS	40%
Methyldopa	—	12 min	105 min	po/IV	50%	<20%
Guanabenz	—	60 min	6 h	Po	75%	90%

Abbreviations: dT ½, drug plasma half-life; eT ½, elimination half-life; TDS, transdermal system (or patch).

Maldonado, JR. Crit Care Clin 33 (2017) 559–599

COVID-19 Agitation (A Case)

Slow improvement

Remains confused, continues on dex + clonidine + opiate for pain control of ongoing priapism

Psychosomatics and Recent References

- Sher Y, Rabkin B, Maldonado JR, Mohabir P, A CASE REPORT OF COVID-19 ASSOCIATED HYPERACTIVE ICU DELIRIUM WITH PROPOSED PATHOPHYSIOLOGY AND TREATMENT. Psychosomatics (2020).
- Bilbul M, Paparone P, Kim AM, Mutalik S, Ernst CL, Psychopharmacology of COVID-19. Psychosomatics (2020)
- Baller EB, et al. Neurocovid: Pharmacological recommendations for delirium associated with COVID-19. Psychosomatics (2020)
- Avram Mack, Hannah-Lise Schofield. Letter to the Editor: Applying (or not?) CAR-T Neurotoxicity Experience to COVID 19 Delirium and Agitation. Psychosomatics (2020)

More Good References

JJ Rasimas, et al. "Aggravated About Agitation II: Epidemiology and Treatment of Agitation in Special Populations." Friday, November 15 . Workshop presentation at the 66th Annual Meeting, The Future of the Subspecialty. November 13-16, 2019. San Diego, California

J. Moore, C. June. Cytokine Release Syndrome in Severe COVID-19. Science (2020).

J. Knight, *et al.* Pre-Transplant Tocilizumab is Associated with More Severe Depression, Anxiety, Pain, and Sleep Following Allogeneic Hematopoietic Cell Transplantation. Biology of Blood and Marrow Transplantation, 24 (3) (2018), pp. S260-S261

Maldonado JR. Novel Algorithms for the Prophylaxis and Management of Alcohol Withdrawal Syndromes-Beyond Benzodiazepines. Crit Care Clin. 2017;33(3):559-599.

Helms J, Kremer S, Merdji H, et al. Neurologic Features in Severe SARS-CoV-2 Infection [published online ahead of print, 2020 Apr 15]. *N Engl J Med*. 2020;NEJMc2008597.

https://emcrit.org/pulmcrit/ketadex/

IL-6 and CRS in severe viral syndromes

- IL-6 release contributes to Cytokine Release Syndrome (**CRS**) –
- complex pathway that results in endothelial cell changes and high vascular permeability. Leads to leakage: ARDS and hypotension
- Secondary Hemophagocytic Lymphohistiocytosis (**sHLH**) =
  - High ferritin
  - Increased macrophage activity
  - Cytopenia
  - Multiorgan failure
- Chimeric antigen receptor therapy (CAR-T) patients can also get CRS and sHLH

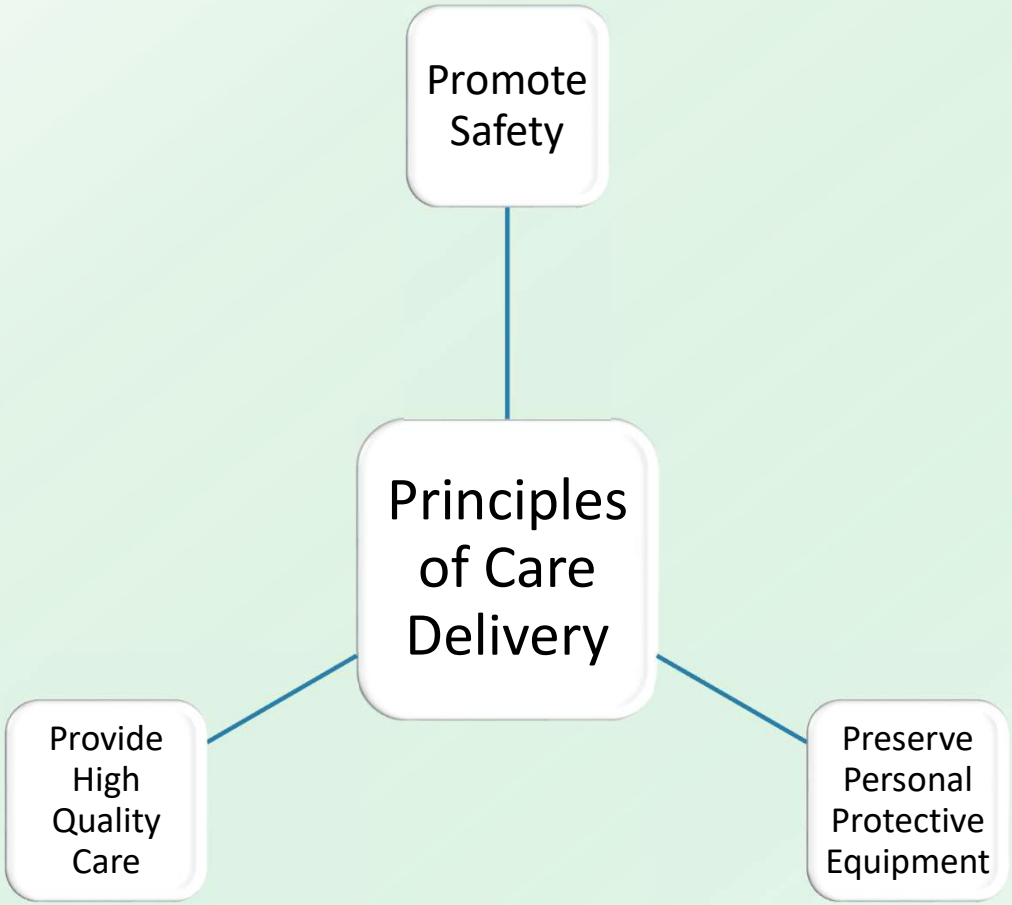
J. Moore, C. June. Cytokine Release Syndrome in Severe COVID-19. Science (2020), 10.1126/science.abb8925

Questions and Discussion

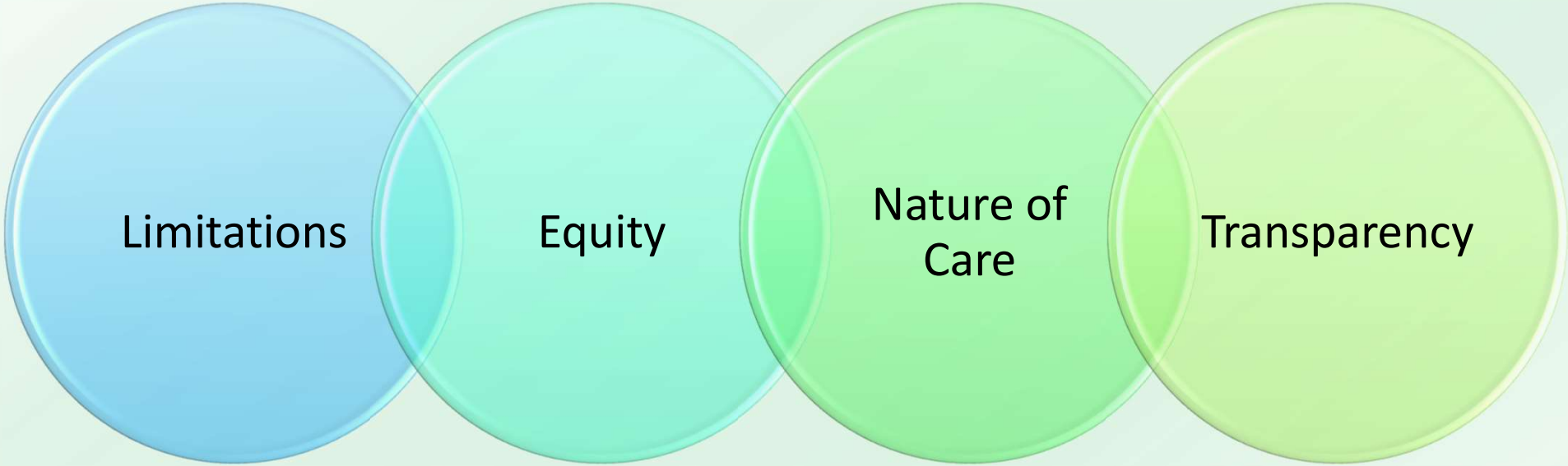
Administration and Clinical Care Delivery

Nasuh Malas, MD, MPH
Clinical Associate Professor, Departments of Psychiatry and Pediatrics
C.S. Mott Children's Hospital, University of Michigan Health System

Staffing Models



Staffing Models



During times of distress or crisis, challenges and gaps get amplified and strengths grow!

Context Matters

Date	Setting	Volume	Case Mix
Mid-March to April	Inpatient	Down 30-40%	More chronic patients
	Consultation-Liaison	Down 60-70% (Child), Initially Down but Quicker Rebound (Adult)	More youth with delirium, developmental disorders, neuropsychiatric conditions
	Partial Program	Transitioned to Virtual	Less acute
	ECT	Dramatic reduction	Selective prioritization
	Psychiatric Emergency Service	Down 40-50%	More admissions, more youth with complicated psychosocial concerns or history of aggression/developmental delay
May	Inpatient	Return to normal census	Higher acuity with increased number of youth with maladaptive personality/coping styles
	Consultation-Liaison	20% of Normal (Child), Normal (Adult)	Higher complexity, more somatization, more youth with developmental disorders and aggression
	Partial Program	Hybrid model	Volumes still low, acuity stable
	ECT	Slowly returning to normal	Increased support for ambulatory population
	Psychiatric Emergency Service	10-20% of Normal	As per above but higher volumes

Workflow Adjustments

Infection Control

- Universal precautions
- Social distancing
- Preserving PPE

Maintaining quality and engagement

- Interpersonal dynamics
- Social aspects of care
- Ethical Concerns

Enhanced Communication

- **Brief Check-Ins:** Hospital service leads Monday, Wednesday, Friday
- **Weekly Check-Ins:** Hospital Leads and Hospital Administrative Lead
- **Twice weekly check-ins:** Chair, service, research, and education leads
- Participation in Medicine/Pediatrics Calls/Meetings
- Development of COVID Consultation Guidelines

Staffing Coverage

- Physician A: Hospital
- Physician C: Hospital
- Physician B: Consultation-Liaison

Week One

Physician A	Physician B	Back Up Coverage
• General Hospital Milieu	• Consultation-Liaison • Hospital Sub-Unit	• Physician C • Physician Ambulatory • Physician D

Week Two

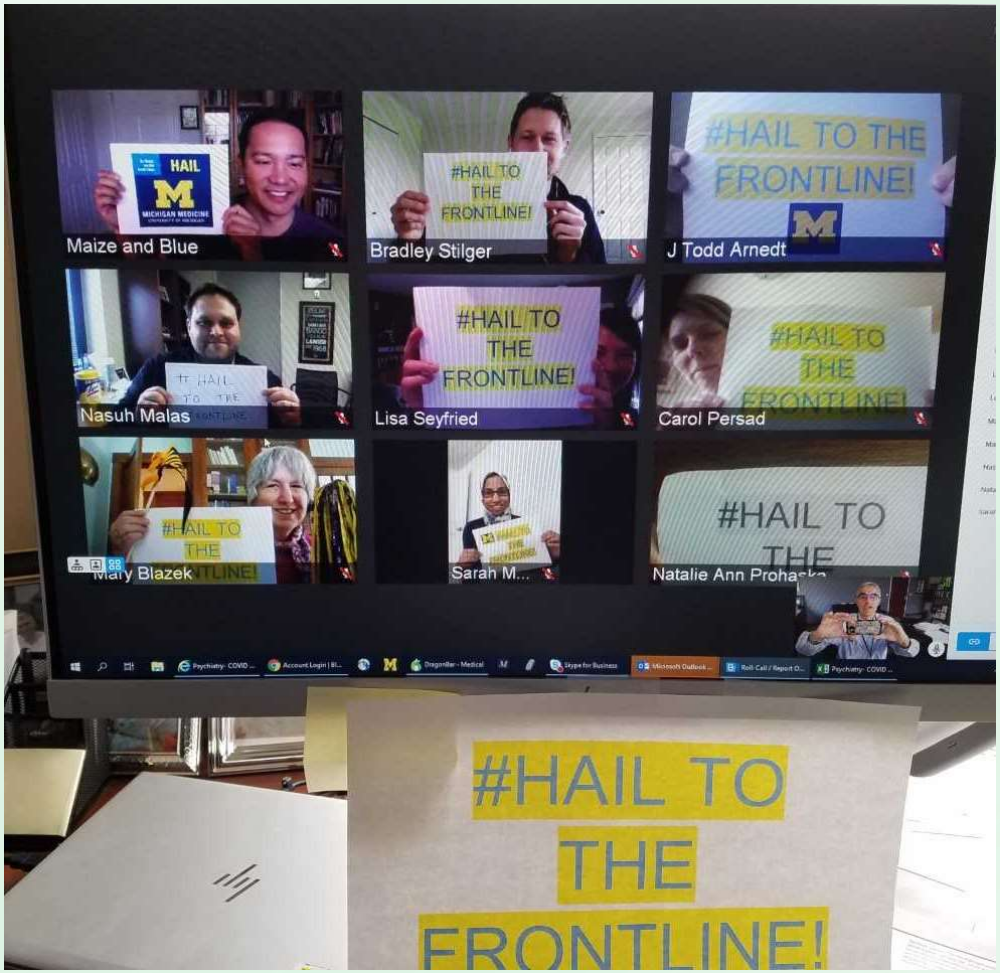
Physician C	Physician D	Backup Coverage
• General Hospital Milieu	• Consultation-Liaison • Hospital Sub-Unit	• Physician A • Physician Ambulatory • Physician B

Week Three

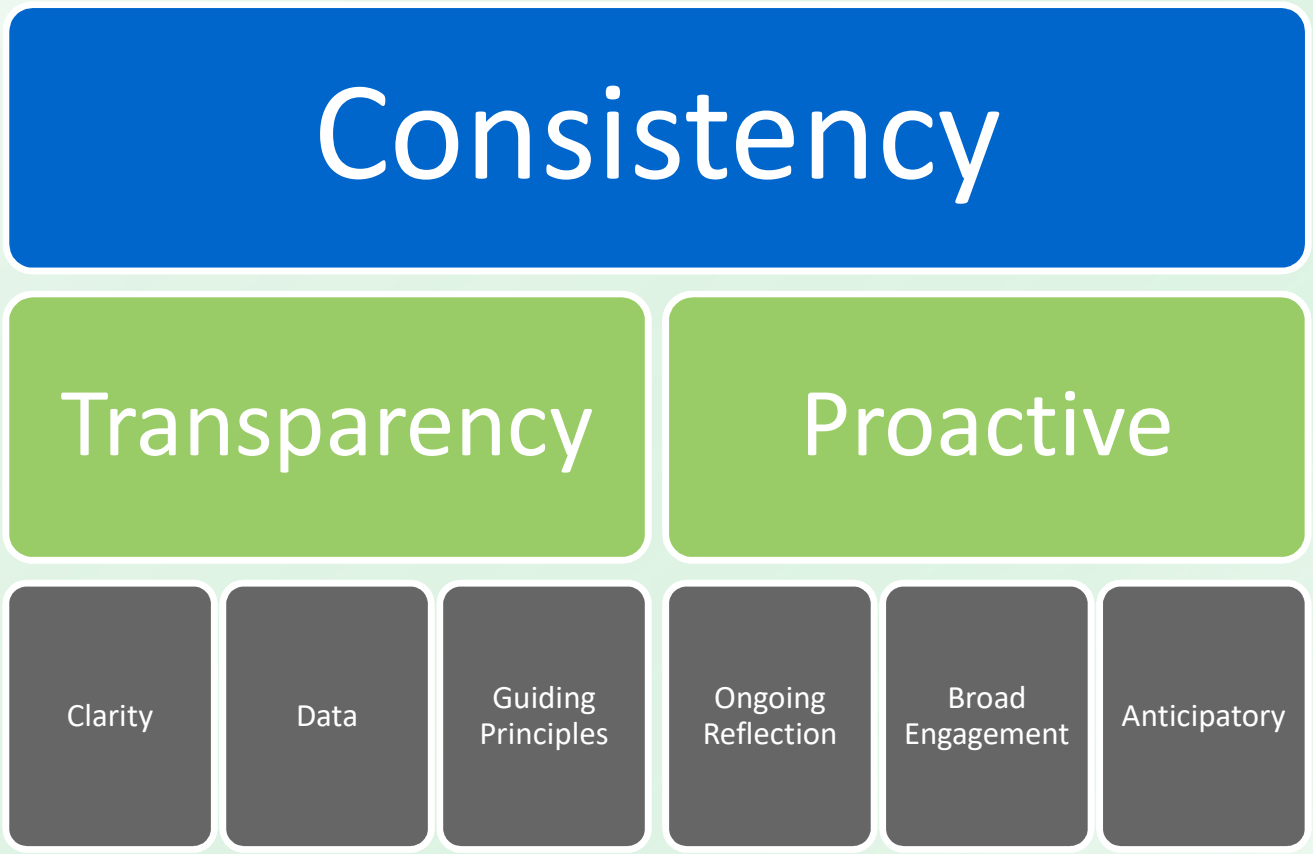
Physician A	Physician B	Back Up Coverage
• General Hospital Milieu	• Consultation-Liaison • Hospital Sub-Unit	• Physician D • Physician Ambulatory • Physician C

Environmental Infection Control

- Staff PPE
- Family visitation
- Shared Spaces
- Group Therapy
- Direct Clinical Care
- Interdisciplinary Team Care


Maize and Blue
Bradley Stilger
J Todd Arnedt
Nasuh Malas
Lisa Seyfried
Carol Persad
Mary Blazek
Sarah M...
Natalie Ann Prohaska
#HAIL TO THE FRONTLINE!

A prescription for uncertainty

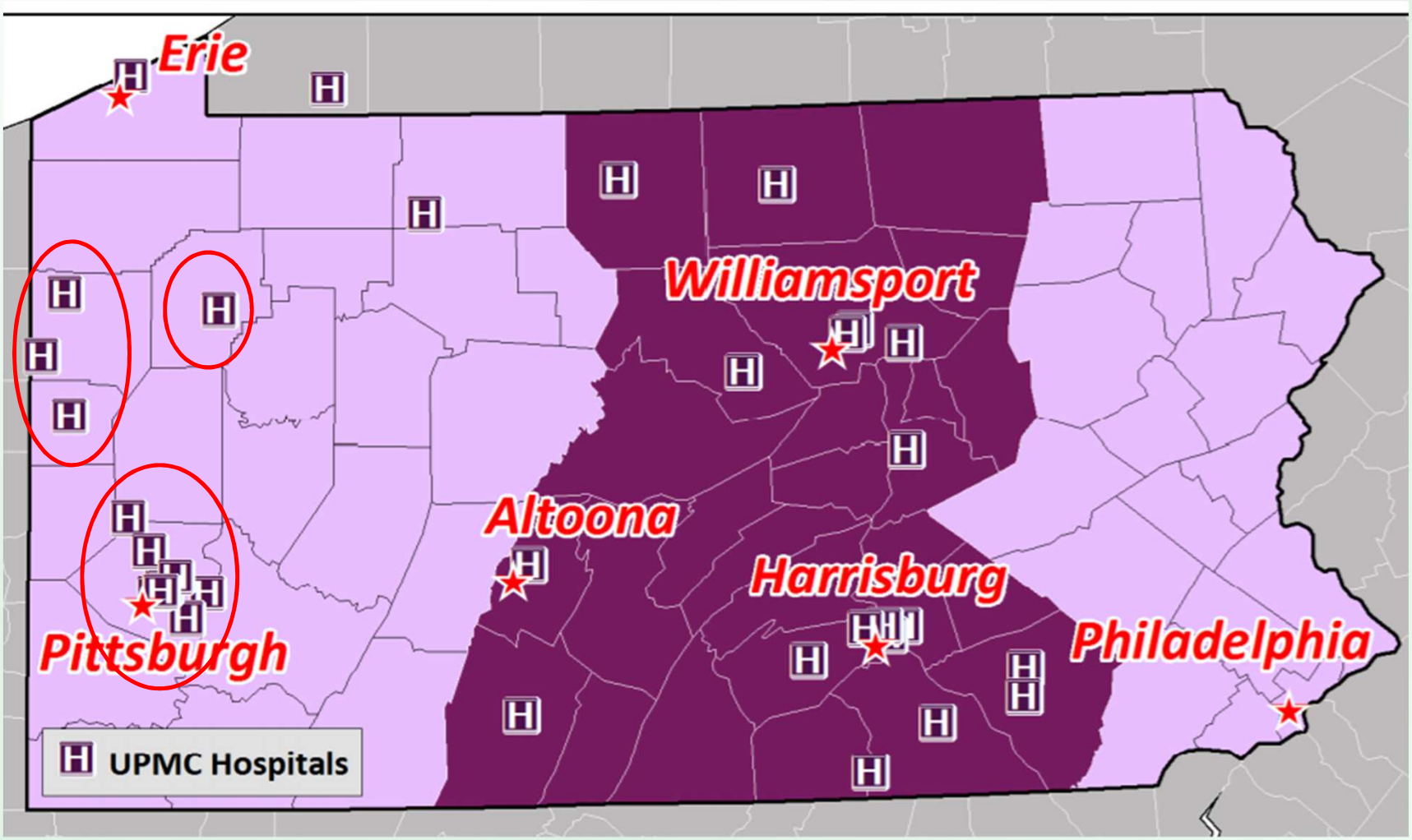


Leveraging Telehealth and Technology in the Age of the Pandemic: UPMC CL Service – One Institution's Experience with Telehealth

Priya Gopalan, MD

Assistant Professor of Psychiatry

Western Psychiatric Hospital, University of Pittsburgh Medical Center


Erie
Williamsport
Altoona
Harrisburg
Philadelphia
Pittsburgh
UPMC Hospitals

CL Hospital Sites

In-Person CL Service

- PUH/MUH
- Select Specialty (LTAC)
- Magee
- Shadyside Hospital
- St. Margaret's
- Passavant/Cranberry
- UPMC East

Telepsychiatry CL Service

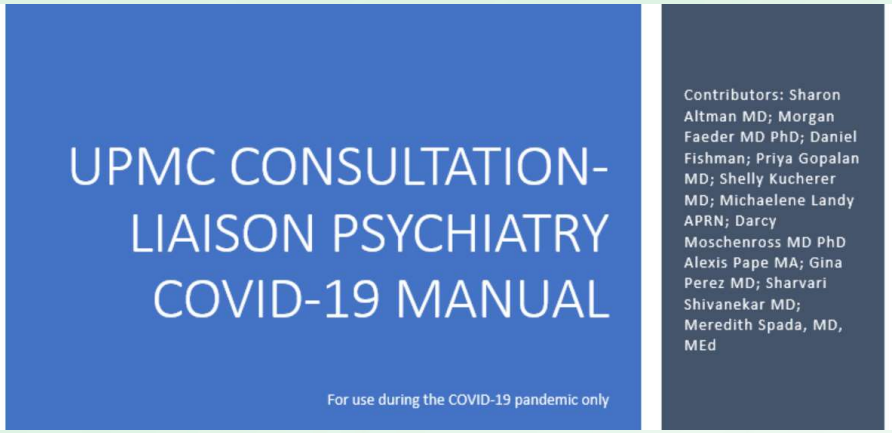
- Horizon (2 campuses) – since 2014
- Jameson – since 2017
- Northwest – since 2017

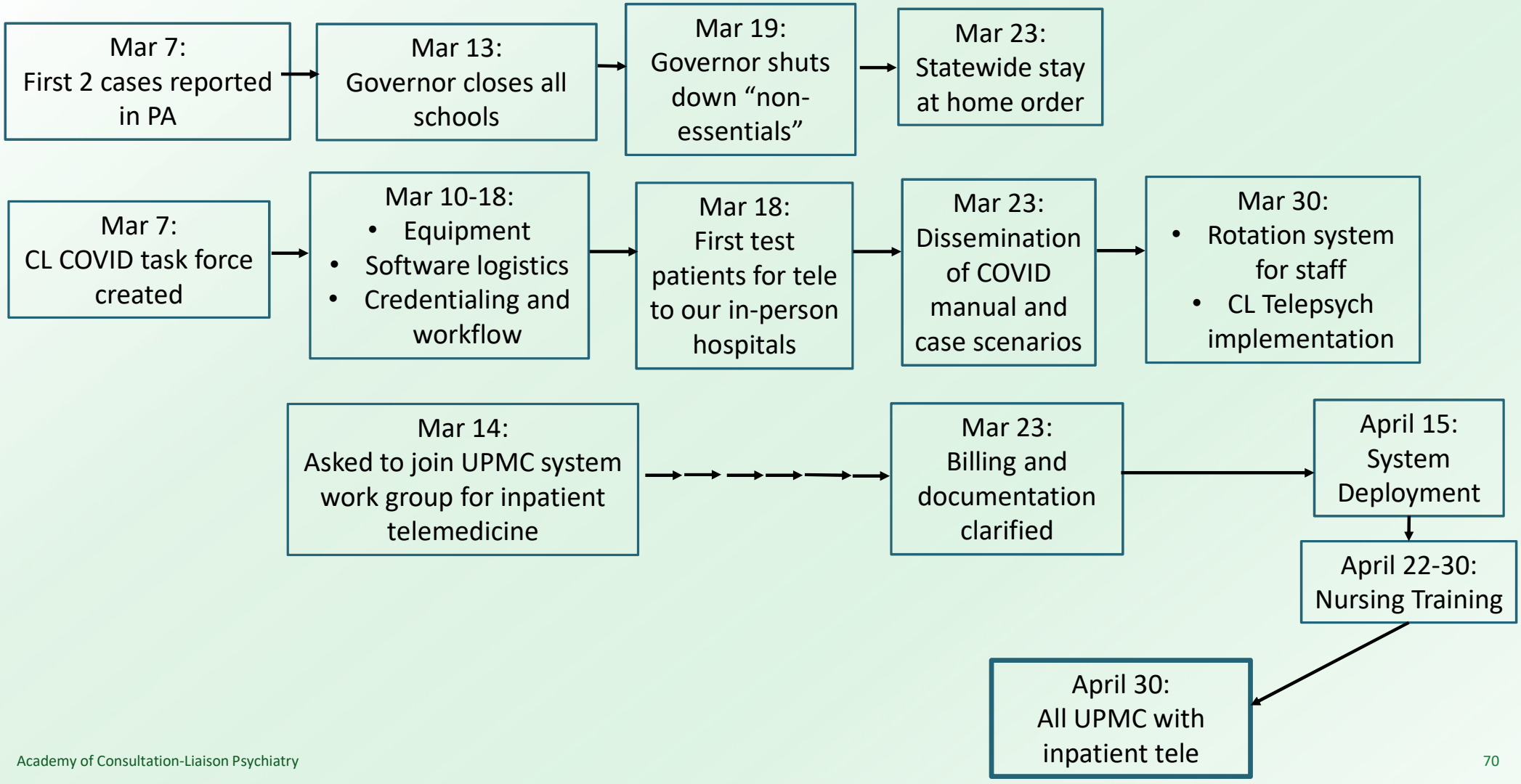
CL COVID-19 Task Force

- Sharon Altman, MD
- Daniel Fishman, MD
- Morgan Faeder, MD PhD
- Darcy Moschenross, MD PhD
- Shelly Kucherer, MD
- Sharvari Shivanekar, MD
- Meredith Spada, MD MEd
- Michaelene Landy, RN
- Alexis Pape, MA
- Gina Perez, MD (WPH telepsych)
- Nina Ross, MD

Tasks included creation of:

- Workflows/processes
- CL COVID-19 Manual
- Clinical Case Scenarios
- Phone vs video vs e-consult




Mar 7:
First 2 cases reported in PA
Mar 13:
Governor closes all schools
Mar 19:
Governor shuts down "non-essentials"
Mar 23:
Statewide stay at home order
Mar 7:
CL COVID task force created
Mar 10-18:
• Equipment
• Software logistics
• Credentialing and workflow
Mar 18:
First test patients for tele to our in-person hospitals
Mar 23:
Dissemination of COVID manual and case scenarios
Mar 30:
• Rotation system for staff
• CL Telepsych implementation
Mar 14:
Asked to join UPMC system work group for inpatient telemedicine
Mar 23:
Billing and documentation clarified
April 15:
System Deployment
April 22-30:
Nursing Training
April 30:
All UPMC with inpatient tele

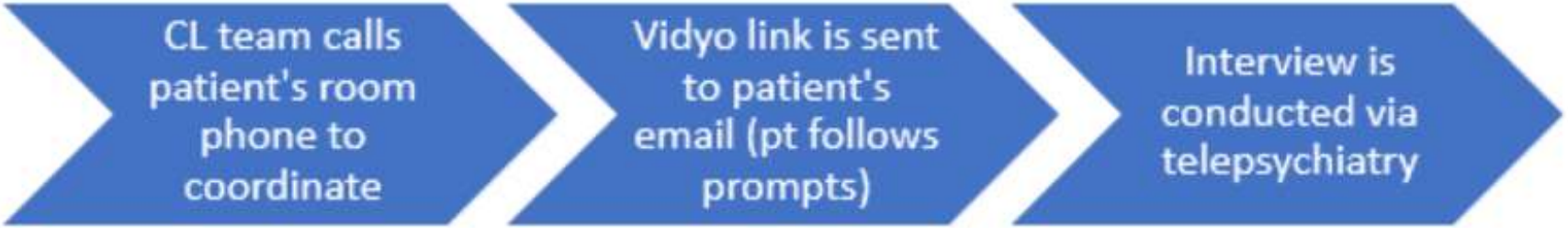
Stakeholders

- Medical Student Education
- CL Fellowship
- Rotating Residents and Moonlighters
- Attending Physicians
- Psychiatric RNs and other Clinicians
- Central Office Staff
- Network Hospital Sites
- UPMC and WPH Telemedicine Groups

Telehealth Considerations

- Platform used: Vidyo
- Options for use:
  - Telemedicine direct to device
  - Telemedicine to service tablet
  - Telemedicine to a unit laptop
- Weekend versus weekday workflows
- Training

Workflow 1: Patient Device (Tablet or Smartphone) Used



* Will need to use Vidyo chat room link sent through service account
* See Appendix 1 for CL team's step-by-step
* See Appendix 2 for patient step-by-step

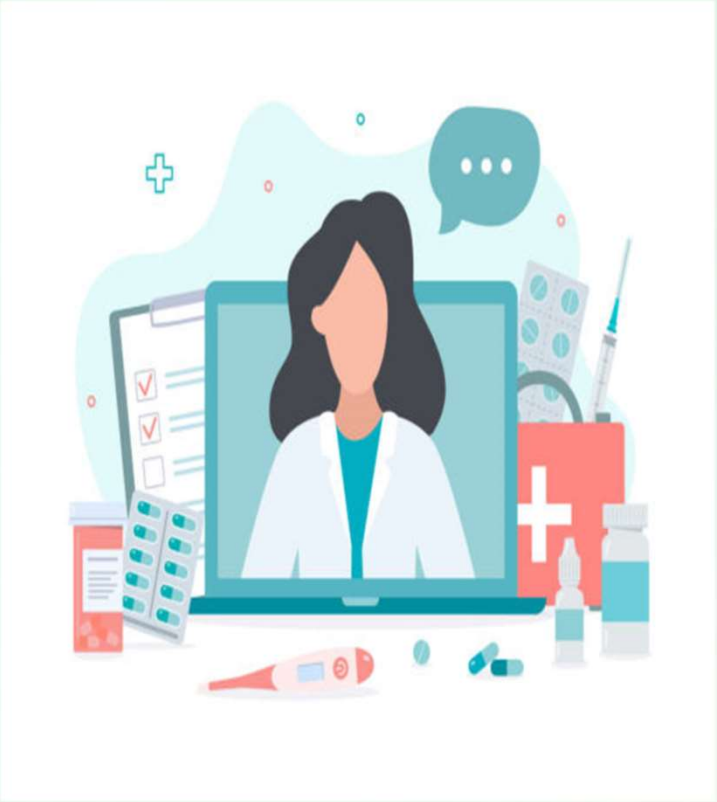
Workflow 2: CL Tablet (used when patient doesn't have a tablet; in-house presence needed)

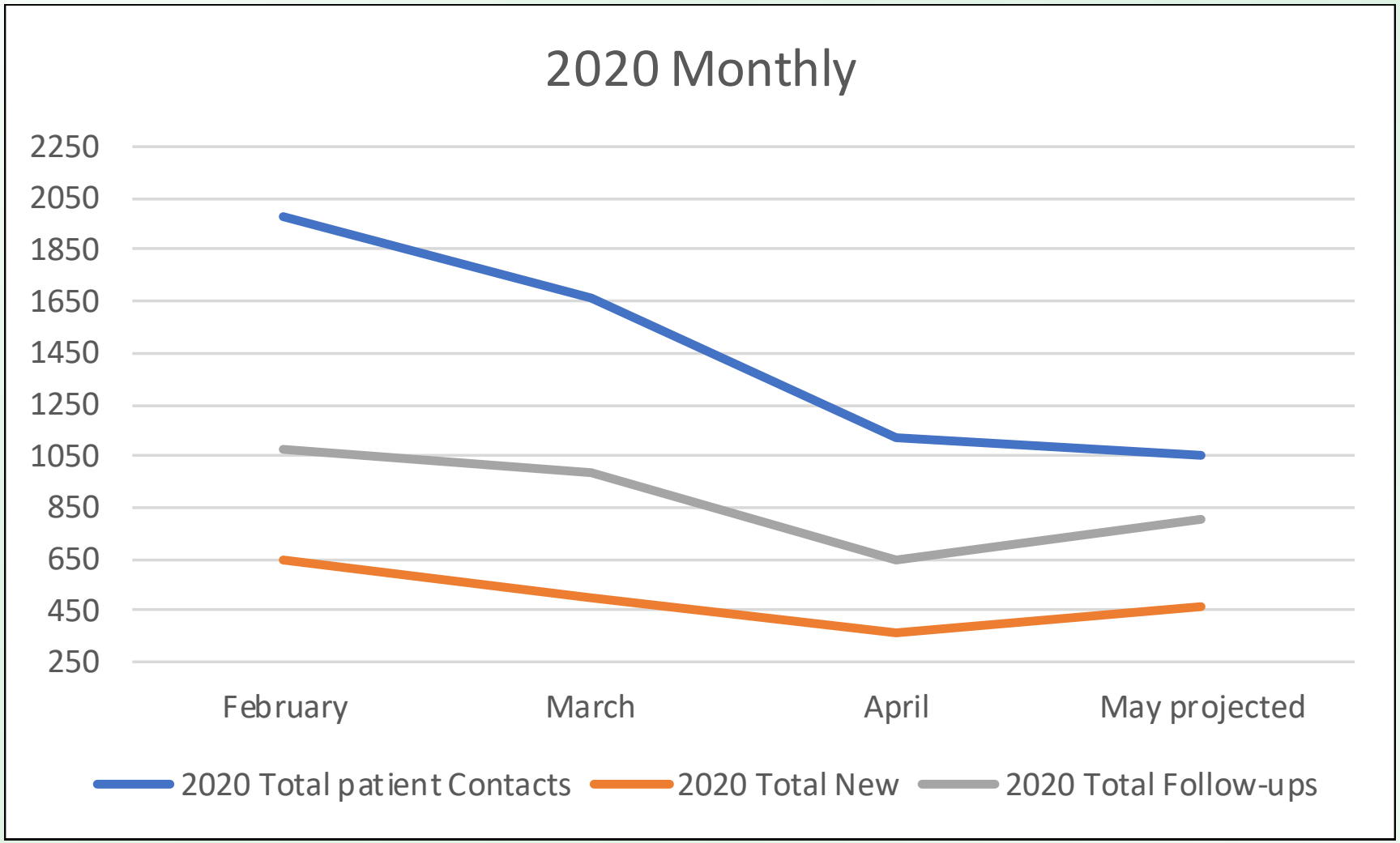
* CL team designee will log into the chat room and coordinate with CL nurse/resident/fellow and attending

* Cleaning protocols for devices as recommended by infection control: preferred cleaner is PDI purple top or alcohol wipes for screens

Telehealth Considerations

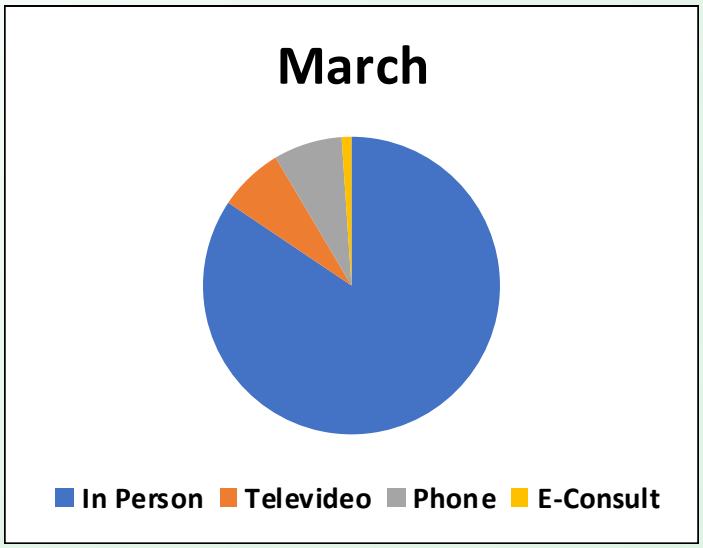
- Patient factors
  - Delirium
  - Major Neurocognitive Disorders
  - Hearing Impairment
  - Interpreters
  - Physical examination
- Legal considerations: commitments; consent
- Scalability across 9 hospitals

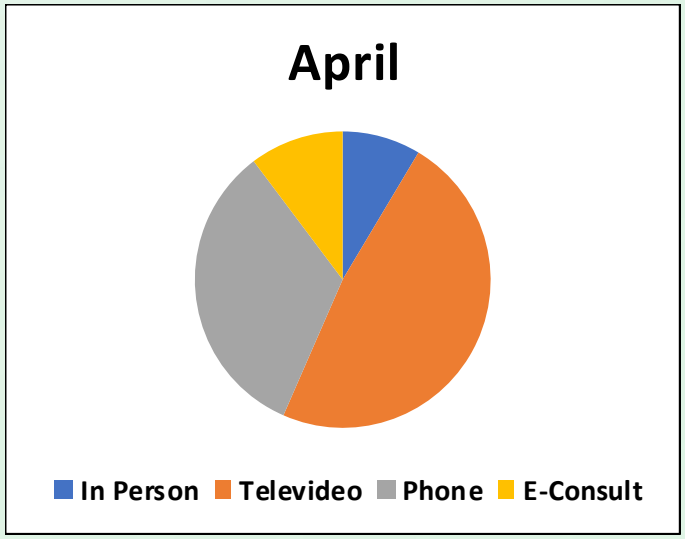


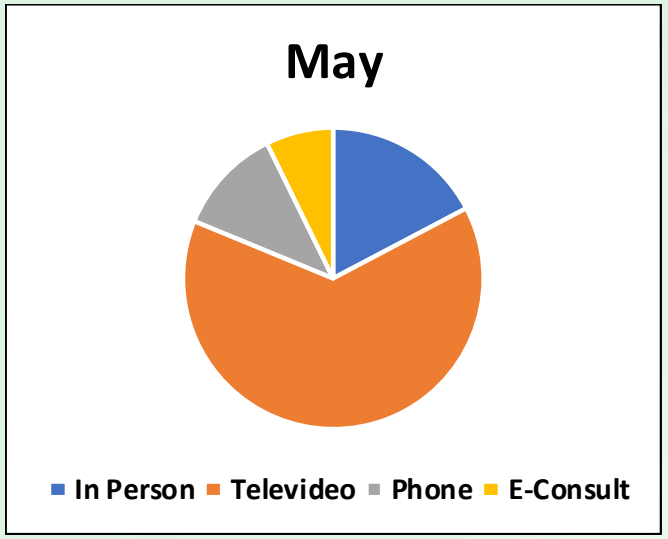

2020 Monthly
2250
2050
1850
1650
1450
1250
1050
850
650
450
250
February
March
April
May projected
2020 Total patient Contacts
2020 Total New
2020 Total Follow-ups

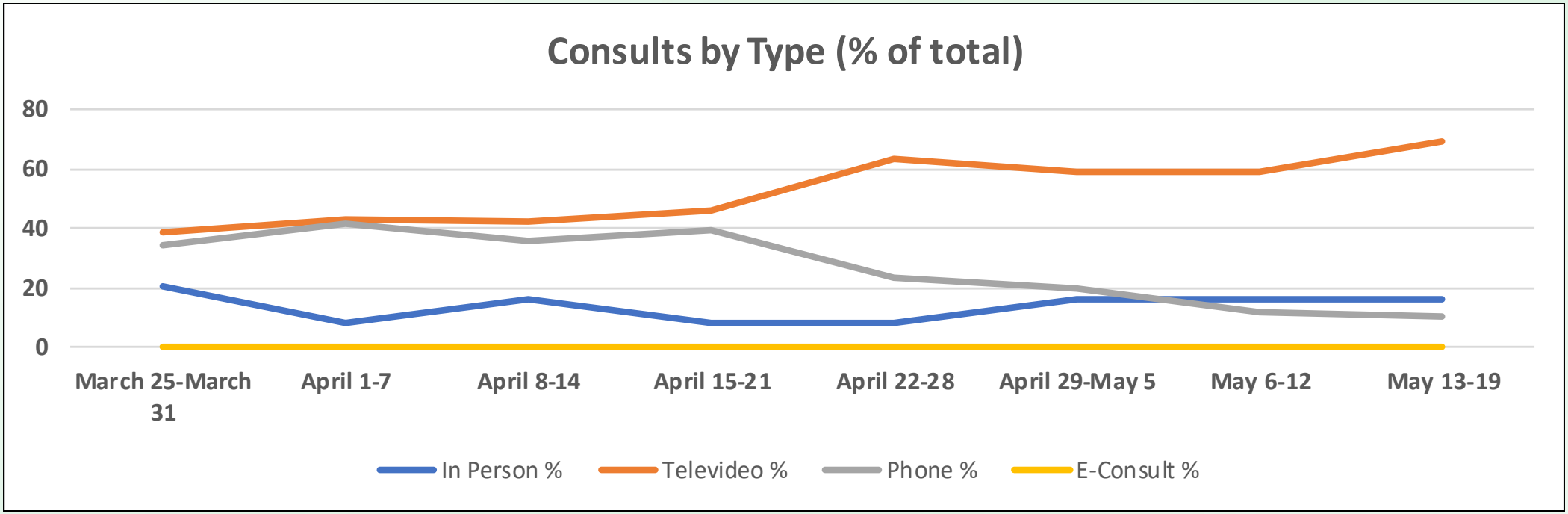
Comparison to 2019

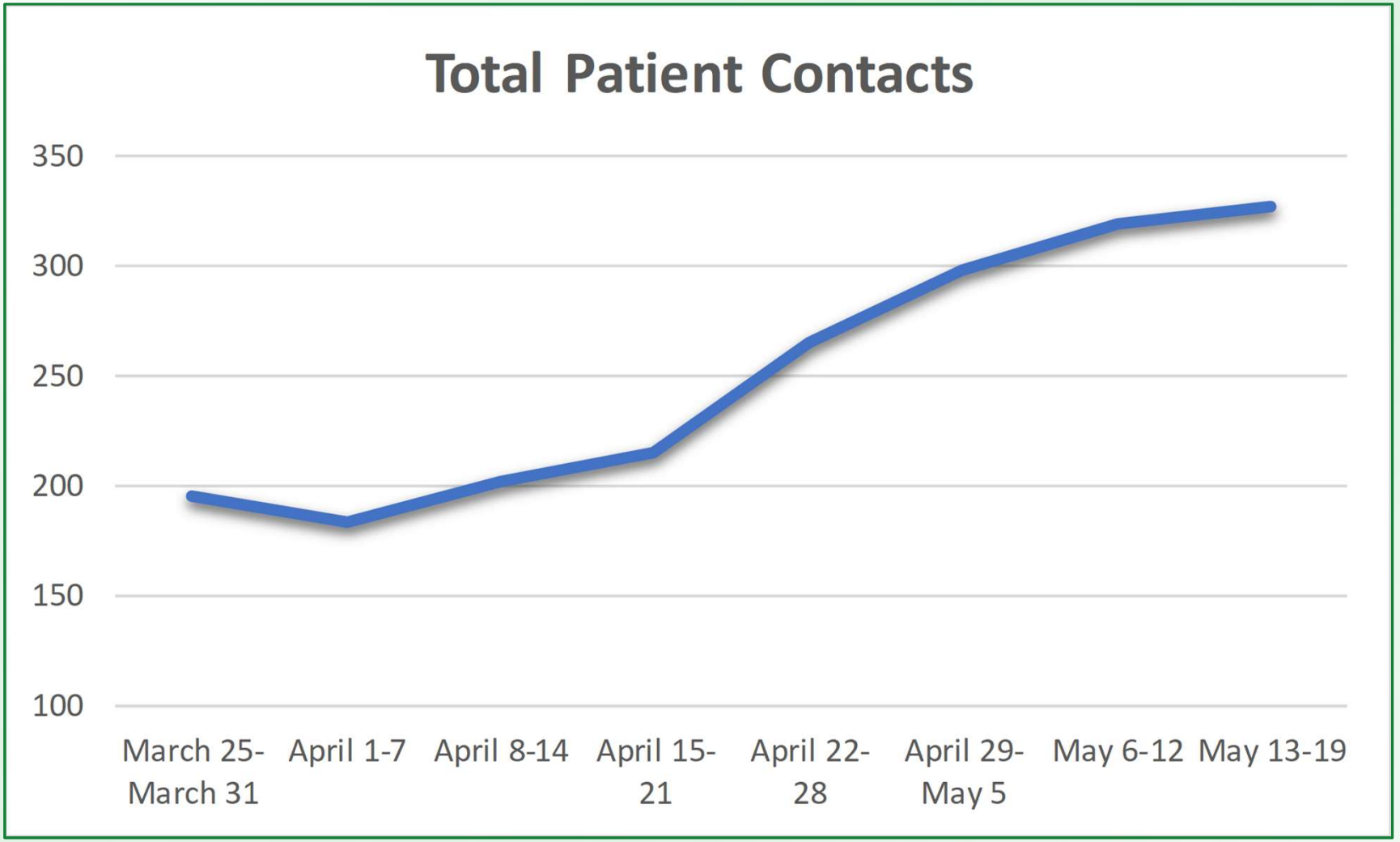
	Total 2020 Patient Contacts (New and Follow-ups)	% of 2019
March	1657	67%
April	1123	50%
May	1403	60%

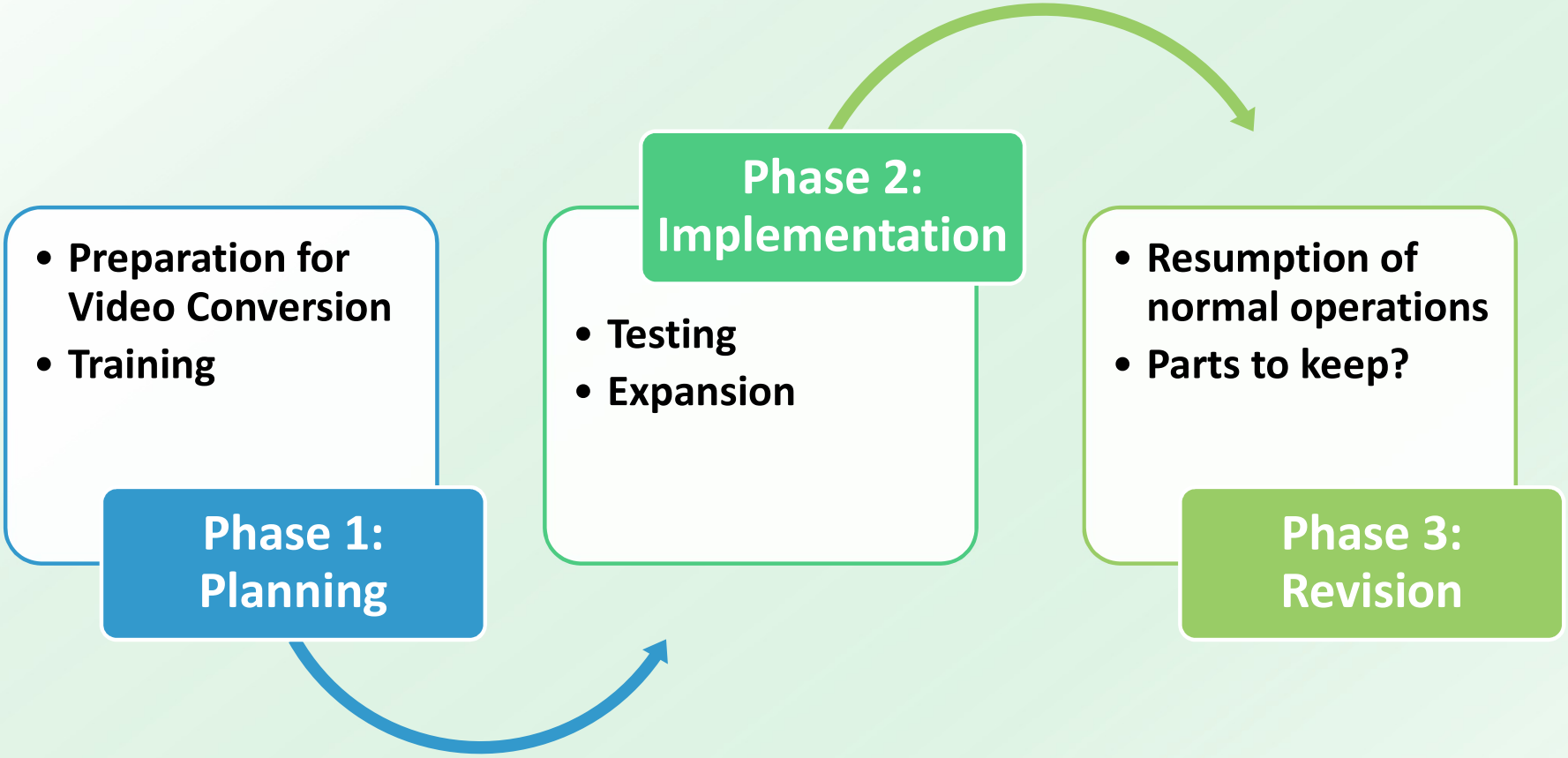

March
In Person
Televideo
Phone
E-Consult


April
In Person
Televideo
Phone
E-Consult


May
In Person
Televideo
Phone
E-Consult


Consults by Type (% of total)
80
60
40
20
0
March 25-March 31
April 1-7
April 8-14
April 15-21
April 22-28
April 29-May 5
May 6-12
May 13-19
In Person %
Televideo %
Phone %
E-Consult %


Total Patient Contacts
350
300
250
200
150
100
March 25-March 31
April 1-7
April 8-14
April 15-21
April 22-28
April 29-May 5
May 6-12
May 13-19


Phase 1: Planning
• Preparation for Video Conversion
• Training
Phase 2: Implementation
• Testing
• Expansion
Phase 3: Revision
• Resumption of normal operations
• Parts to keep?

Lessons Learned and Future Directions

Lessons Learned

- It takes a village!
- Technology needs to work with clinical workflow
- The individual service can inform the system
- Tele conversion in ambulatory services helps for referrals/access

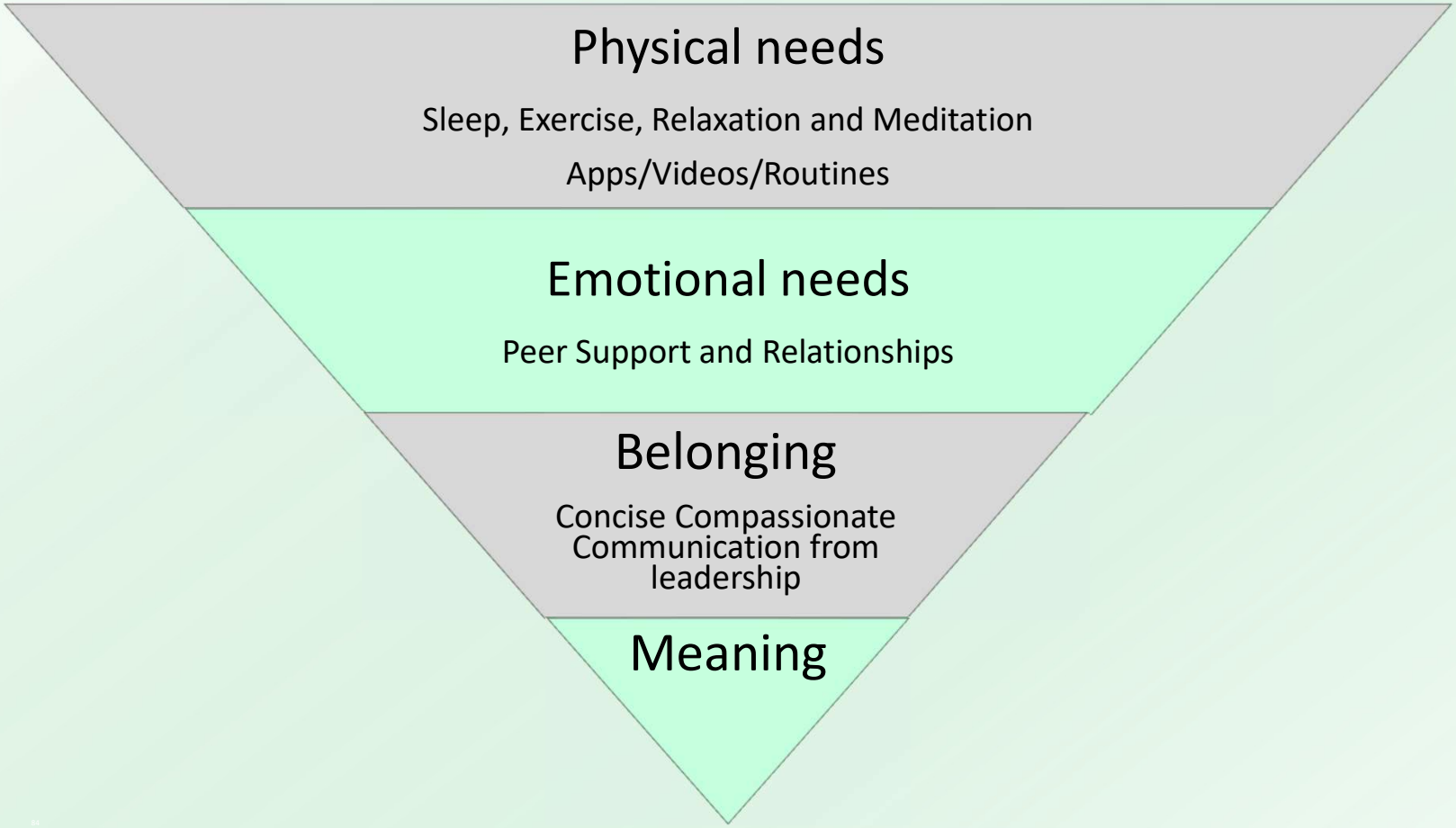
Questions Raised

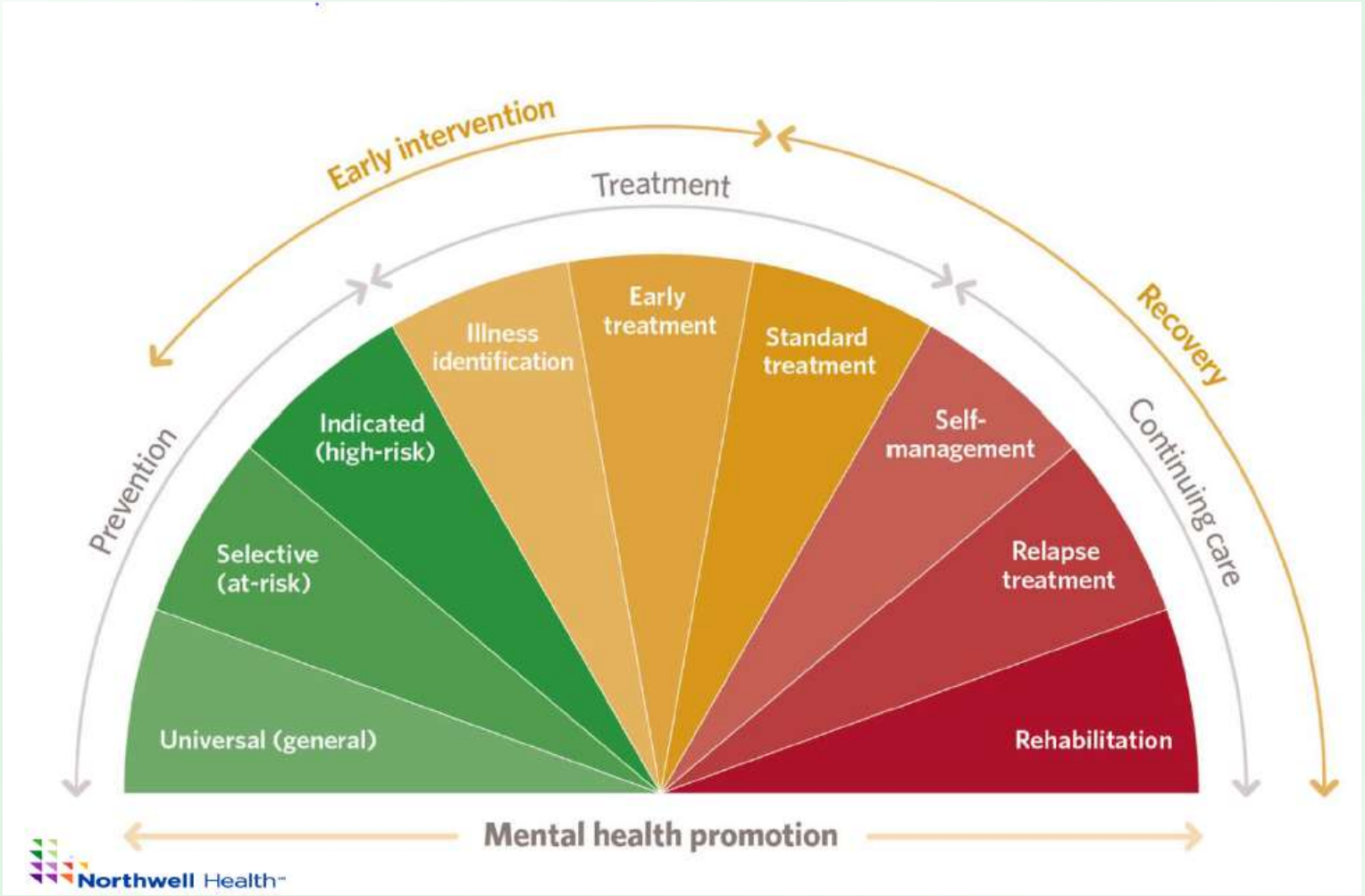
- Criteria to be used for resumption of tele services
- What areas can we/should we maintain tele services (e.g., on-call)
  - Concerns around maintaining?

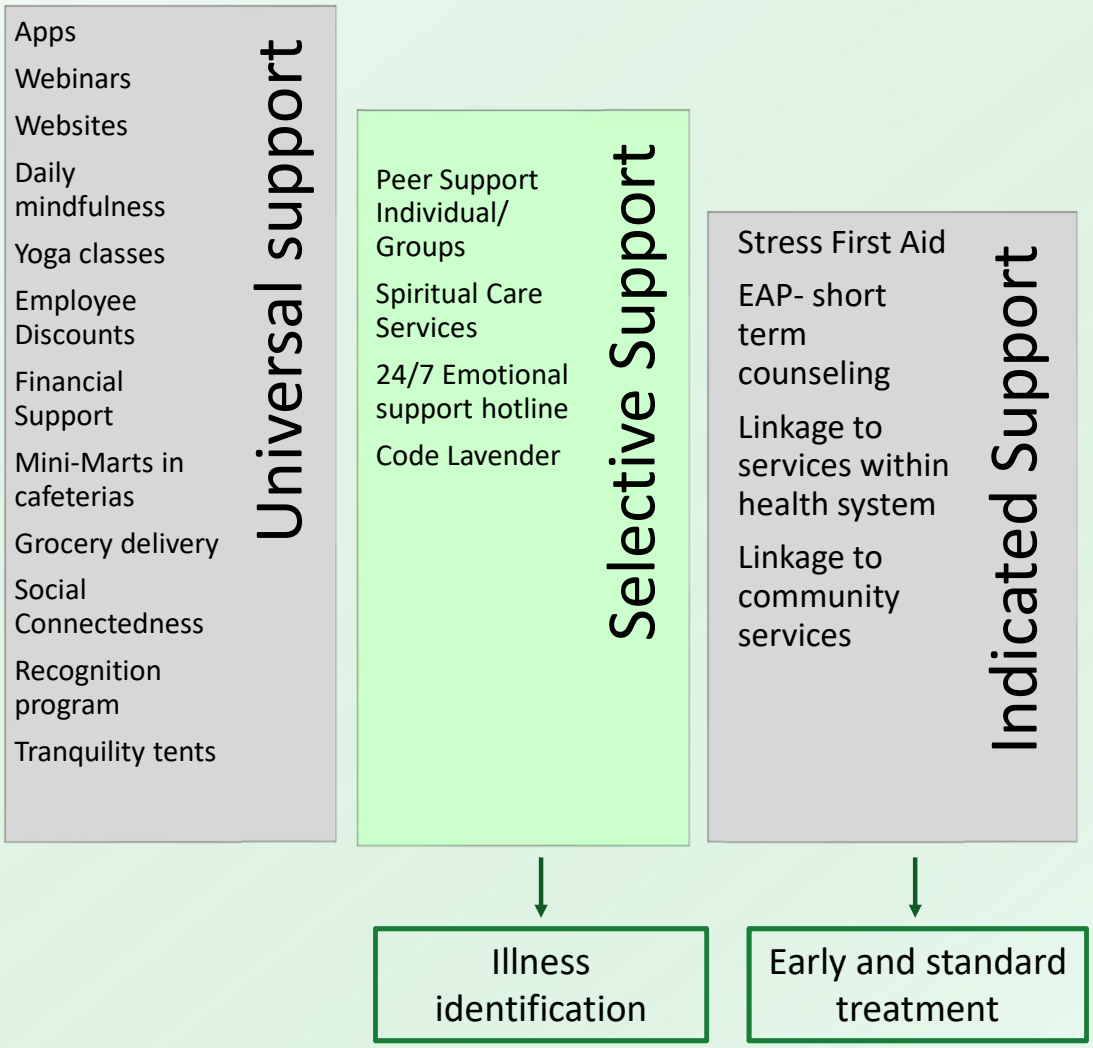
Stress First Aid and Psychological Trauma in the Health System

Vera Feuer MD
Associate Professor, Psychiatry and Emergency Medicine
Cohen Children's Medical Center, Hofstra-Northwell School of Medicine

Hierarchy of Resource Need




Early intervention
Treatment
Recovery
Prevention
Continuing care
Illness identification
Early treatment
Standard treatment
Indicated (high-risk)
Self-management
Selective (at-risk)
Relapse treatment
Universal (general)
Rehabilitation
Mental health promotion
Northwell Health


Universal support
Apps
Webinars
Websites
Daily mindfulness
Yoga classes
Employee Discounts
Financial Support
Mini-Marts in cafeterias
Grocery delivery
Social Connectedness
Recognition program
Tranquility tents
Selective Support
Peer Support Individual/ Groups
Spiritual Care Services
24/7 Emotional support hotline
Code Lavender
Indicated Support
Stress First Aid
EAP- short term counseling
Linkage to services within health system
Linkage to community services
Illness identification
Early and standard treatment

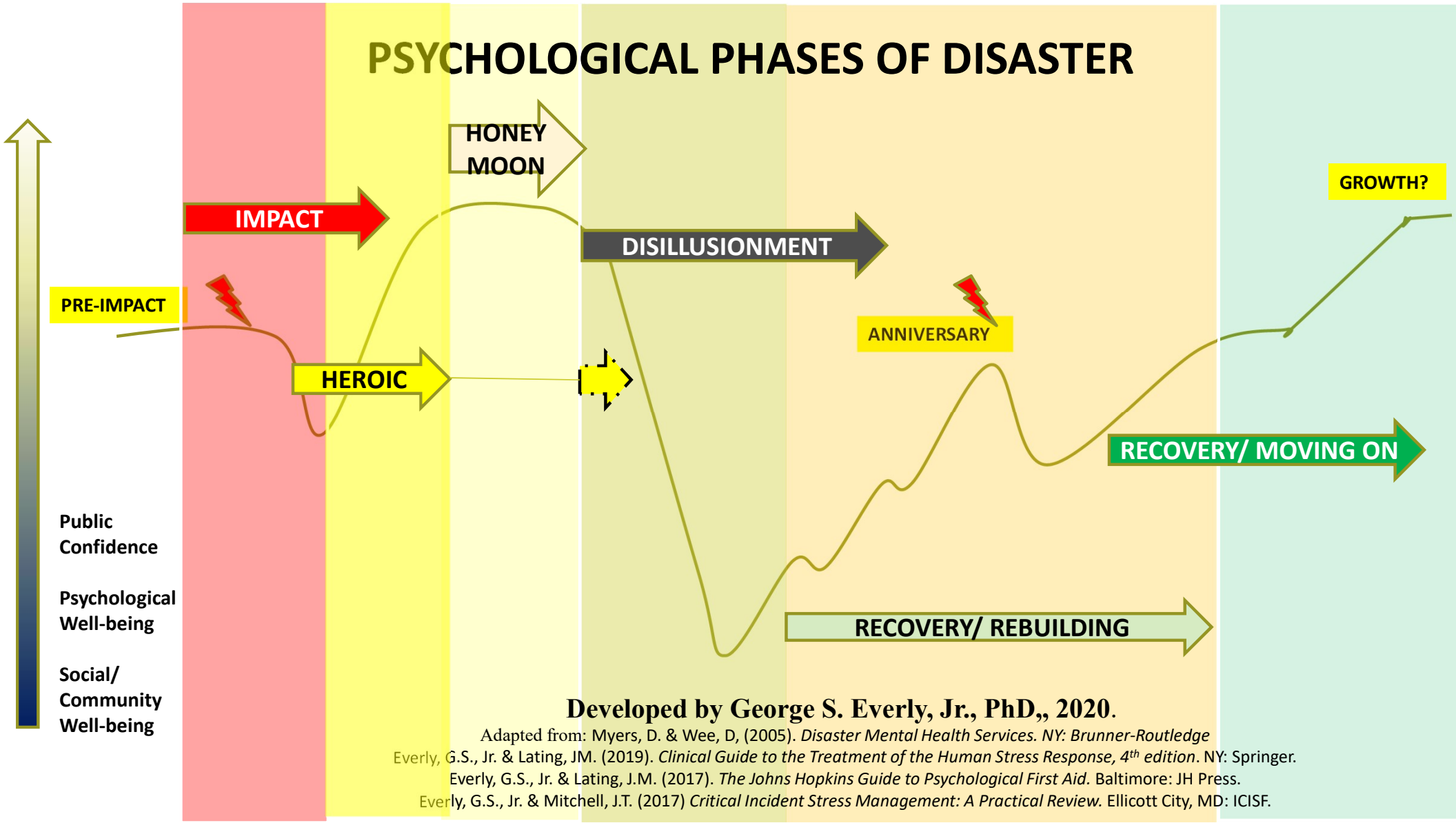
An Integrative Model of the Psychological Phases of Disaster and Response

George Everly, Jr., PhD, FACLP
The Johns Hopkins Bloomberg School of Public Health, and
The Johns Hopkins School of Medicine

Two “lens” through which disaster mental health may be examined:

1) Descriptive Phenomenological
2) Prescriptive Construct

PSYCHOLOGICAL PHASES OF DISASTER



Developed by George S. Everly, Jr., PhD,, 2020.

Adapted from: Myers, D. & Wee, D, (2005). *Disaster Mental Health Services. NY: Brunner-Routledge*

Everly, G.S., Jr. & Lating, JM. (2019). *Clinical Guide to the Treatment of the Human Stress Response, 4th edition*. NY: Springer.

Everly, G.S., Jr. & Lating, J.M. (2017). *The Johns Hopkins Guide to Psychological First Aid.* Baltimore: JH Press.

Everly, G.S., Jr. & Mitchell, J.T. (2017) *Critical Incident Stress Management: A Practical Review.* Ellicott City, MD: ICISF.

Psychological “Causality”

- Anyone unable to discharge necessary responsibilities as a result of the incident
- Mental health surge: There will be more psychological casualties than physical - 25% of population directly affected may benefit from PFA (Raphael, 1986)

ESTIMATING PSYCHOLOGICAL "TOXICITY"

GS Everly, Jr., PhD, 2020

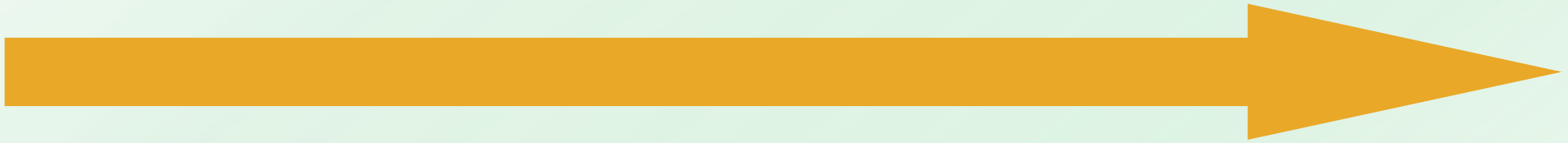
SEVERITY (1,2,4) +	DURATION (1,2) +	AMBIGUITY (5-9) -	RESIIENCE (3,4,9,10)
Lethality	Long impact	Contagion	Identity
Morbidity	Unpredictable intermittency	Leadership – Contradiction, Politicizing	Collaboration/ Support
Disabling		Media	Cohesion
Destruction		Scientific/ Medical	Collective Agency

1. Norris, F., Friedman, M.J., Watson, P.J. (2002). 60,000 Disaster Victims Speak: Part II. Summary and Implications of the Disaster Mental Health Research. *Psychiatry: Interpersonal and Biological Processes:* Vol. 65, No. 3, pp. 240-260. https://doi.org/10.1521/psyc.65.3.240.20169
2. PAHO, WHO (2001). *Stress Management in Disasters*. Washington, DC: PAHO.
3. Ozer EJ, Best SR, Lipsey TL, Weiss DS. Predictors of posttraumatic stress disorder and symptoms in adults: a meta-analysis. *Psychol Bull*. 2003;129(1):52-73. doi:10.1037/0033-2909.129.1.52
4. Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology, 68*(5), 748–766. https://doi.org/10.1037/0022-006X.68.5.748
5. Monat, A., Averill, J. R., & Lazarus, R. S. (1972). Anticipatory stress and coping reactions under various conditions of uncertainty. *Journal of Personality and Social Psychology*, 24, 237-253. doi:10.1037/h0033297
6. Carleton, R.N. (2016). Into the unknown: A review and synthesis of contemporary models involving uncertainty. *Journal of Anxiety Disorders*, 39. 30-43. https://doi.org/10.1016/j.janxdis.2016.02.007
7. Mishel, MH. Perceived uncertainty and stress in illness. *Res Nurs Health*. 1984;7(3):163-171. doi:10.1002/nur.4770070304
8. Byun, E., "Effects of Uncertainty on Perceived and Physiological Stress and Psychological Outcomes in Stroke-Survivor Caregivers" (2013). Scholarly Commons. http://repository.upenn.edu/edissertations/616
9. Flynn, B.F. (1997) Psychological Aspects of Disasters, *Renal Failure,* 19:5, 611-620, DOI: 10.3109/08860229709109027
10. Bandura, A. (2000). Exercise of human agency through collective efficacy. *Current Directions in Psychological Science,* 9 (3), 75-78.

"Strategy without tactics is the slowest route to victory. Tactics without strategy is the noise before defeat"

- Sun Tzu

BUILDING RESILIENCE THROUGH THE LENS OF THE JOHNS HOPKINS' RESISTANCE, RESILIENCE, RECOVERY CONTINUUM



GOALS OF THE CONTINUUM:

- **Create Resistance** **Enhance Resiliency** **Speed Recovery**

Kaminsky, MJ, McCabe, OL., Langlieb, A., & Everly, GS, Jr. (2007). An evidence-informed model of human resistance, resilience, & recovery: The Johns Hopkins' outcomes-driven paradigm for disaster mental health services. *Brief Therapy and Crisis Intervention,* 7, 1-11.

Nucifora, F., Jr., Langlieb, A., Siegal, E., Everly, GS. Jr. & Kaminsky, MJ. (2007). Building resistance, resilience, and recovery in the wake of school and workplace violence. *Disaster Medicine and Public Health Preparedness*, 1(Supplement_1): 33-37.

PHASIC PSYCHOLOGICAL/ BEHAVIORAL REACTIONS TO DISASTER

(GS Everly, Jr, 2020; From Everly & Lating, 2019; Myers & Wee, 2005; Norris, 2002)

Phase Reactions	Impact (Chronicity Dependent)	Heroic	Honeymoon	Disillusionment	Restoration Reconstruction	Impact Anniversary	Restoration
Mild to Moderate	CONFUSION ACTS OF PRESERVATION – SELF, FAMILY, AND PROPERTY DISBELIEF NEED FOR INFORMATION/ GUIDANCE FEAR	ACTS OF PRESERVATION – SELF, FAMILY, AND PROPERTY HELPING OTHERS – ALTRUISM SEARCH & RESCUE RISK-TAKING GROUP IDENTIFICATION ADRENALIN SURGE	ALTRUISM RELIEF COHESION OPTIMISM ELATION EXISTENTIAL REFORMULATIONS	GRIEF EXHAUSTION MILD DEPRESSION ANGER RE: LIMITS OF ASSISTANCE; GAPS NEEDS VS. ASSISTANCE. EXISTENTIAL, SPIRITUAL CRISES	RECOVERY “NEW NORMAL” PT GROWTH OPPORTUNITY MEMORIALS	HOMAGE FOND MEMORIES	RECOVERY PT GROWTH
Severe	PANIC DISSOCIATION IMMOBILIZATION COGNITIVE IMPAIRMENT DENIAL	IMPAIRED RISK ASSESSMENT - IMPULSITY REDUCED COGNITIVE CAPACITY INABILITY TO GRASP CONSEQUENCES	IRRESPONSIBILITY INFIDELITY MALADAPTIVE SUPERSTITIOUS BEHAVIOR	DISCOURAGEMENT FEELING ABANDONED MALADAPTIVE COPING PTSI IMMOBILIZING DEPRESSION DOMESTIC VIOLENCE RIOTS, STIGMA	TAKING ADVANTAGE OF OTHERS BLAMING OTHERS STIGMA UNNECESSARY CHANGE	REKINDLED GRIEF. OBSESSIONS. FLASHBACKS. DELAYED PTSI.	

BUILDING RESILIENCE THROUGH THE LENS OF THE JOHNS HOPKINS' RESISTANCE, RESILIENCE, RECOVERY CONTINUUM

GOALS OF THE CONTINUUM:

Create Resistance **Enhance Resiliency** **Speed Recovery**

Kaminsky, MJ, McCabe, OL., Langlieb, A., & Everly, GS, Jr. (2007). An evidence-informed model of human resistance, resilience, & recovery: The Johns Hopkins' outcomes-driven paradigm for disaster mental health services. *Brief Therapy and Crisis Intervention,* 7, 1-11.

Nucifora, F., Jr., Langlieb, A., Siegal, E., Everly, GS. Jr. & Kaminsky, MJ. (2007). Building resistance, resilience, and recovery in the wake of school and workplace violence*. Disaster Medicine and Public Health Preparedness*, 1(Supplement_1): 33-37.

The palette of methods and techniques available to the interventionist must be commensurate with the unique features of the person or group for whom the methods and techniques are intended.

(Adapted from: Millon, T., Grossman, S., Millon, C., Meaghar, D., & Everly, GS, Jr. (1999). *Personality guided therapy.* NY: Wiley.)

The Johns Hopkins' Model: Resistance, Resilience, Recovery

RESISTANCE
"Immunity"
Created via:
1. Resilient Leadership
2. Planning/ Training
3. Wellness practices

RESILIENCE
"Acute Phase Rebound"
Created via:
1. PFA
2. Group crisis interventions
3. Wellness practices
4. Spiritual support

RECOVERY
"Moving on"
Created via:
1. Counseling
2. Psychiatric
3. Spiritual
4. Wellness
5. Healing groups

Growth

Kaminsky, MJ, McCabe, OL., Langlieb, A., & Everly, GS, Jr. (2007).
An evidence-informed model of human resistance, resilience, & recovery:
The Johns Hopkins' outcomes-driven paradigm for disaster mental health services.
Brief Therapy and Crisis Intervention, 7, 1-11.

10 PSYCHOLOGICAL CRISIS/DISASTER INTERVENTIONS

(GS Everly, Jr., 2020; Adapted from Everly & Mitchell, 2017; Everly & Lating, 2017,2019; Myers & Wee, 2005)

INTERVENTION	TARGET GROUP(S)	TIMING	GOALS
1. Pre-event Strategic Planning. Resilience-focused Leadership	Anticipated target groups.	Pre-event.	Anticipatory guidance. Build resistance. Foster cohesion.
2. Surveillance. Assessment.	Those directly & indirectly affected by impact.	Impact, Heroic, Honeymoon, Disillusionment phases	Assessment and Triage
3. Individual. Crisis Intervention, Psychological First Aid (PFA) as needed. Telephone, text, computer, face-to-face	Individuals as needed.	Impact, Heroic, Honeymoon, Disillusionment, Recovery, Anniversary, Reconstruction.	Screening. Assessment, Stabilization, Mitigation, Facilitation of access to further care, as need. Foster hope.
4. Demobilization Respite Areas/ Centers.	Emergency personnel. Rescue and Recovery personnel. Healthcare in hospitals.	One-tine end of shift or deployment. Ongoing.	Psychological decompression. Screening. Assessment, Ease transitions.
5. Crisis Management Briefings/ Town Hall Meetings	Large or small groups of responders, healthcare, or civilians (Town Hall Meetings). Heterogeneous.	Impact, Heroic, Honeymoon, Disillusionment, Recovery, Anniversary, Reconstruction.	Provide information/ guidance. Control rumors. Engender hope. Potential for screening. Anticipatory, explanatory, Prescriptive Guidance.

INTERVENTION	TARGET GROUP(S)	TIMING	GOALS
6. Huddles. Debriefings.	**Small homogeneous groups.**	**Disillusionment. Acute post incident. During on-going incidents. End of Shift.**	**Mitigate acute distress. Platform for screening.**
7. Wellness Practices	**All**	**All Phases.**	**Build Resistance/ "immunity." Foster Resilience. Promote holistic wellness.**
8. Family Interventions	**Families**	**Impact, Heroic, Honeymoon, Disillusionment, Recovery, Anniversary, Reconstruction.**	**Screening. Assessment, Stabilization, Mitigation, Facilitation of access to further care, as need. Foster hope, resilience.**
9. Pastoral Crisis Intervention. Spiritual support services.	**Any directly or indirectly impacted groups.**	**Impact, Heroic, Honeymoon, Disillusionment, Recovery, Anniversary, Reconstruction.**	**Screening. Assessment, Stabilization, Mitigation, Facilitation of access to further care, as need. Foster hope, resilience.**
10. Leadership Consultation	**Policy makers. Frontline leadership.**	**Impact, Heroic, Honeymoon, Disillusionment, Recovery, Anniversary, Reconstruction**	**Provide guidance on creating an organizational culture of resilience.**

Everly, G.S., Jr. & Lating, JM. (2019). *Clinical Guide to the Treatment of the Human Stress Response, 4th edition*. NY: Springer.
Everly, G.S., Jr. & Lating, J.M. (2017). *The Johns Hopkins Guide to Psychological First Aid.* Baltimore: JH Press.
Everly, G.S., Jr. & Mitchell, J.T. (2017) *Critical Incident Stress Management: A Practical Review.* Ellicott City, MD: ICISF.
Myers, D. & Wee, D, (2005). *Disaster Mental Health Services. NY: Brunner-Routledge*

Questions and Discussion

THANKS

- To ACLP and Dr. Sharpe for hosting this Virtual Forum
- Holly Riester and all those at ACLP who made this possible
- Our moderators and panelists for sharing their time to provide this forum
- All the participants for your interest and care to improve the lives of our patients, staff and trainees.