

No conflict of interests

### Outline:



Consultation—Liaison at AUBMC



Thinking outside the box: restructuring the service workflow



Thinking outside the box: clinical adaptability to COVID-19 presentations



Thinking outside the box: L is for meta-"liaison"



Thinking outside the box: trainees as colleagues



Thinking outside the box: research implications

# Consultation -Liaison Psychiatry at AUBMC:

Prepandemic

#### Restructured in February 2019

Covers inpatient medical and surgical units, outpatient chemotherapy units as well as emergency departments consults

24 hour in-person staffing – no curbside or telepsychiatry consults

Includes full-time psychiatrist, a resident, and medical students and a health psychologist upon request

# COVID-19 as a game - changer

While pandemics have significantly affected the course of humanity, we have had given it little consideration as psychiatrists until now

Most of our resources have been on infectious disease that are insidious and cause prolonged public health burden (HIV – AIDS etc..)

When rapidly spreading outbreaks occur, mental health response is by default undertaken as a response to a disaster

Pandemic and epidemic outbreaks have some crucial idiosyncracies that make their mental health aspect more unique particularly in CL

There's a significant exposure risk for population and providers, including mental health providers

Social disruption due to measures imposed after the global failure to contain the pandemic

Particularly in Lebanon, allocation of scarce resources including medications and PPE was critical

# Thinking Outside the Box: Dynamic Restructuring

#### First wave:

- Departmental COVID-19 Mental Health Taskforce
- A proactive workflow was implemented: universal screening (PHQ-4) and triage of all COVID-19 patients
- Available free-of-charge daily check-ins

#### Second (bigger) wave:

- Reactive workflow model
- Guidelines implemented internally for type of consultations
- Protocols circulated institutionally for medical management of common psychiatric conditions in COVID-19 patients

### Thinking outside the box: Generating Guidelines for Internal use

#### Purpose

- Rapid, high quality, and efficient provision of consultation services
- Provide liaison and support to medicine, surgery, critical care and ED services
- Implementation of tele-psychiatry to minimize unnecessary exposure of C-L providers to COVID-19 and to conserve valuable personal protective equipment (PPE)

#### Appendix 1. COVID guide to CL evaluations **Organized by method of evaluation**

	CONSULT QUESTION
	Meds to naive pt
	Meds Restarting home
METHOD of EVALUTION	Drug-drug interaction
	Primary depression
Curbside	Capacity - AMA if primary team has already assessed capacity Delirium
	Post surgical agitation = delirium
	New acute onset psychosis = delirium
	New acute onset mania = delirium (agitated)
	Primary psychosis
	Primary mania
	ТВІ
	Dementia
Defer until able to communicate	Safety evaluation and pt cannot communicate
	Capacity re consent
Patient is evaluated: Phone or Tele (with	Safety evaluation and pt can communicate
video)	Meds to treatment resistant
video)	Adherence to medications
	Adjustment reaction depression/anxiety
	Capacity - AMA if primary team has not assessed capacity
In marcan	Behavior
In person	Post suicide and pt can communicate
	NMS/SS/catatonia

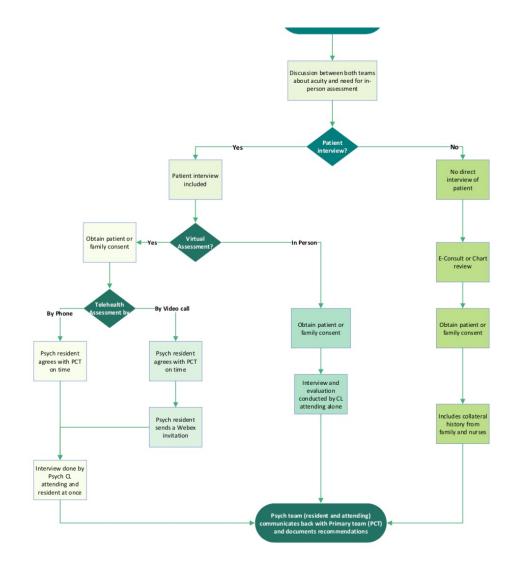
#### Appendix 2. COVID guide to CL evaluations Organized by Consult question (alphabetically)

- 1. Behavior in person
- 2. Capacity re AMA if primary team has already assessed capacity chart review
- 3. Capacity re consent phone
- 4. Capacity re AMA if primary team has not assessed capacity- in person
- Delirium chart review
- 6. Dementia chart review and collateral (see behavior)
- 7. Drug-drug interaction curbside
- 8. Meds poor adherence phone
- 9. Meds to naive pt curbside
- 10. Meds to treatment resistant phone
- 11. Meds Restarting home curbside
- 12. New acute onset mania = delirium (agitated) chart review
- 13. New acute onset psychosis = delirium chart review
- 14. NMS/SS/catatonia in person
- 15. Post surgical agitation = delirium chart review
- 16. Post suicide and pt can communicate tele
- 17. Primary psychosis chart review
- 18. Primary depression curbside
- 19. Primary mania chart review
- 20. Safety evaluation and pt cannot communicate defer until able to communicate
- 21. Safety evaluation and pt can communicate phone
- 22. TBI chart review

Thinking outside the box: Criteria for type of consults

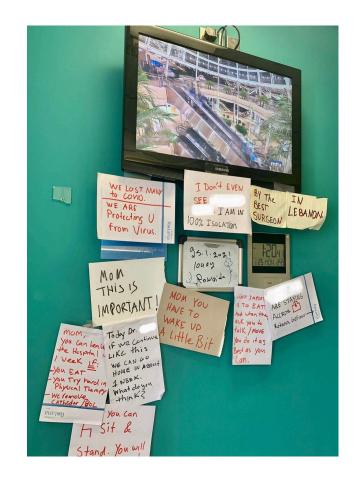
#### Thinking outside the box: Leveraging Telehealth

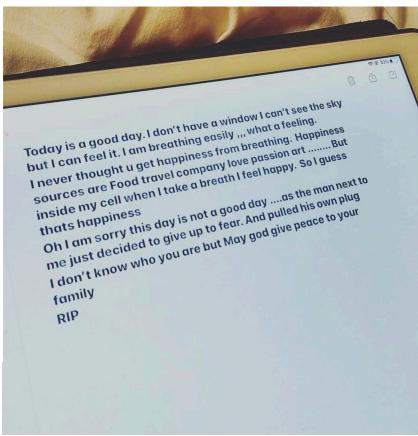
- Several institutions had instated an eConsult process for COVID-positive patients – a chart review consultative process; to protect patients and HCW while ensuring proper stewardship of resources
- The modality of evaluation was always agreed upon with the primary team.
- Most telepsychiatry consults were done via the patient's personal phone.
- Tablets were considered but were deemed not logistically feasible
- In-person consultations were reserved for capacity consults, especially those that were controversial, for behavioral agitation, and for psychiatric emergencies such as suicidal or self-harm attempts, suspected neuroleptic malignant syndrome, serotonin syndrome and catatonia.



# Thinking Outside the Box: Protocols for Clinical High-Yield Consult Questions

- The Bread-and-Butter CL cases:
  - Delirium (especially with agitation)
    - Guidelines for management of delirium in hospitalized adult COVID- 19 patients outside critical care settings
  - And Anxiety "I forgot how to Breathe"







#### Department of Psychiatry

#### PROTOCOL MANAGEMENT OF AGITATION AND DELIRIUM IN COVID-19 PATIENTS IN NON-CRITICAL CARE SETTINGS

Sleep hygiene: light control, sound control, bundled care if possible Natural light
Reorient frequently
Sensory: eyeglasses and hearing aids
PT/OT: early mobilization or PROM in bed

Timely removal of catheters

Avoid restraints

#### DELIRIUM MONITORING CAM screening

Melatonin 3 mg until discharge

Avoid narcotics for behavioral control

Avoid anticholinergics, antihistamines and benzodiazepines

#### DELIRIUM/AGITATION DETECTED

OR

OLANZAPINE 2.5-5 mg PO/NGT qhs Titrate by 2.5-5 mg qd up to 10 mg daily

**PREVENTION** 

**TREATMENT** 

Monitor QTC especially in patient on azithromycin MORE SEDATING Available in Orally Dissolvable form if patient cannot swallow Monitor for orthostatic hypotension

If Treated, and QTc < 500 ms, continue until patient no longer delirious for 3 days (start taper after 24 hours without agitation)

QUETIAPINE IR start at 12.5 – 25 mg qhs at bedtime or up to TID or 100 mg daily

Monitor QTC especially if patient on azithromycin MORE SEDATING Monitor for Orthostatic hypotension

HALDOL 0.5 – 1 mg PO/IV at bedtime or BID Titrate by up to 1-2 mg/day up to 5 mg a day

Monitor QTC especially if patient on azithromycin LESS SEDATING

#### DAILY EKG -

OR

COVID 19 MEDICATIONS + Antipsychotics increase QTC prolongation risk

If QTc prolonged or patient still delirious/agitated, DO NOT HESITATE TO CALL PSYCHIATRY

#### **Special Considerations**

The changing polypharmacy of COVID-19 -If using Azithromycin: The risk of QT prolongation is further increased, especially with use of IV Haloperidol.

Sedatives such as benzodiazepines are added to antipsychotics to assist with rapid sedation in a severely agitated patient and must be used judiciously as **benzodiazepines may increase risk of delirium.** 

Use of benzodiazepines is appropriate and required in patients with alcohol and/or benzodiazepinewithdrawal delirium. Along with high-dose Thiamine 500 mg IV q8 for 3 days.

Consult Psychiatry if needed.

For geriatric patients, use antipsychotics sparingly and start lower, go slower due to increased risk of antipsychotic side effects.

If using IV benzodiazepines for over a week during mechanical ventilation: During the post-extubation stage, reduce standing benzodiazepine dose by 25 to 50%, and continue taper by 20% daily until discontinuation (consider slower taper and using prn benzodiazepines if withdrawal is a concern).

# Delirium Protocol — *it's delirium until proven otherwise*

- Obtain K+, Mg+, maintain K>4, and Mg>2 while on antipsychotics
- Obtain baseline and daily EKG
- If patients can take PO or have enteral route otherwise -> Melatonin 3 mg q 7 pm.
- For all patients with history of Parkinson's disease, parkinsonism, dementia, schizophrenia, intellectual disability, or bipolar disorder, consult Psychiatry for management of delirium.
- Please review all medication interactions and side effects on UpToDate before use When starting medications from the chart attached, use combination of standing and 'PRN for agitation' orders to optimize management.
- Check daily for extrapyramidal symptoms (EPS) including parkinsonism, dystonia, akathisia, and neuroleptic malignant syndrome daily while on antipsychotics medications.
- For patients who require prn IV haloperidol for episodes of severe agitation, consider standing oral haloperidol instead of oral olanzapine or oral quetiapine, with the goal to use one antipsychotic medication.
- Consider Psychiatry consultation if agitation/delirium could not be managed despite Olanzapine 10 mg daily, Quetiapine 100 mg/daily or Haldol 5 mg daily, if there are concerns for antipsychotic side effects (e.g. EPS, QT prolongation), and if needed.
- Taper and Discontinuation of Antipsychotics
  - If patient is not agitated for 24 hours, reduce Olanzapine by 2.5-5 mg/ daily down to 2.5 mg/day. The goal is to discontinue Olanzapine before discharge or shortly after.
  - If patient is not agitated for 24 hours, reduce Quetiapine by 12.5-50 mg/ daily down to 25 mg/day. The goal is to discontinue Quetiapine before discharge or shortly after.
  - If patient is not agitated for 24 hours, reduce Haloperidol by 0.5-2 mg/daily down to 0.5 mg/day. The goal is to discontinue Haloperidol before discharge or shortly after.

# Rule of Thumb on Medication Management:

"Depending Where the Patient Is"



#### Department of Psychiatry

#### PROTOCOL FOR MANAGEMENT OF ANXIETY IN COVID-19 HOSPITALIZED PATIENTS

#### **BE CAREFUL WITH BENZODIAZEPINES**

#### START MELATONIN 3-5 MG PO q 7PM UNTIL DISCHARGE

#### **ANXIETY**

- ALWAYS consider non-pharmacological interventions first
- Consider underlying etiologies (e.g. shortness of breath) or utilize medications patient may already be on by adjusting the dose

#### ANXIETY with or without INSOMNIA

- ANTIHISTAMINE AGENT (ATARAX 25-50 MG PO OR PROMETHAZINE 25 MG IM BID/TID)
- · Should be avoided in older adults
- Do NOT use for more than 2-3 days
- If using benzos instead, use with caution
- Risk of delirium

#### ANXIETY with DEPRESSION and INSOMNIA

- MIRTZAPINE 7.5-15 MG PO at bedtime
- Moniotr neutrophil count important if patient on immunosuppressants
- Risk of delirium

#### ANXIETY with suspected DELIRIUM + INSOMNIA

- QUETIAPINE 12.5 (elderly) -25 or 50 mg at bedtime or up to TID
- $\bullet$  Should be supplemented with melatonin 3-5 mg PO at bedtime
- Moniotr QTC on EKG (important if patient on azithromycin)
- Should NOT be used for QTC>500 ms
- Use Short- Term

IN CASE OF ANY UNCERTAINTY OR QUESTIONS PLEASE CALL/PAGE PSYCHIATRY

Bizri, M. 2021 Adapted from Huremovic 2020. A

## Thinking Outside the Box: Clinical Conundrums

- Clinically, we have noted emerging themes in our COVID and post-COVID patients.
- We conducted a chart review on emerging themes encountered in the post-COVID-19 ward at AUBMC
- The post-COVID-19 unit, therefore, encompassed patients with acute (up to 4 weeks from the onset of symptoms) and post- acute (4 to 12 weeks from the onset of symptoms) COVID-19 infection
- Mean LOS: 29.52 days

# The one where even CL consults present differently

- Delirium most prevalent replicating international studies
- Delirium duration is a predictor of mortality important to SCREEN for it and to treat AGGRESSIVELY
- Nonresponsive Delirium evidence for VPA use in agitated delirium not responding to antipsychotics

	· •	
DSM-5 diagnosis as per the consulting team	Major depressive episode	8 (15.4%)
	Other mood disorder	6 (11.5%)
	Adjustment disorder	2 (3.8%)
	Panic attack/disorder	3 (5.8%)
	Generalized anxiety disorder	1 (1.9%)
	Other anxiety disorder	8 (15.4%)
	Delirium	16 (30.8%)
	Drug intoxication/withdrawal	7 (13.5%)
	Serotonin syndrome	2 (3.8%)
	Normal reaction to stress	1 (1.9%)

Sher Y, et al (2015) Valproic acid for treatment of hyperactive or mixed delirium: rationale and literature review. Psychosomatics. https://doi.org/10.1016/j.psym.2015.09.008.

#### CL presentations: Important Findings

- The 'suicide tsunami': 38.5% of patients were found to have suicidal ideations – but only 8% were detected by the primary teams (despite a hospital-wide high-risk behavioral screening being implemented)
- Always screen for suicidal ideations even in the nondepressed
- Symptoms of psychiatric, neurological, and physical illnesses, as well as inflammatory damage to the brain in individuals with post-COVID-19 syndrome, might synergistically increase suicidal ideations and behaviors

Table 2 Characteristics of the psychiatry-liaison team consultations received by patients on the post-COVID-19 unit

Variable	Count	
	Mean ± Standard deviation	
Day to psychiatry consult	13 + 21.51	
	Frequency (percentage)	
Reason for a psychiatry consult	Low mood	13 (25%)
	Suicidality	4 (7.7%)
	Anxiety/Panic attacks	16 (30.8%)
	Agitation/Delirium	19 (36.5%)
Psychiatric symptoms present on assessment	Depressive symptoms	26 (50%)
	Suicidality	20 (38.5%)
	Anxiety symptoms	35 (67.3%)
	Panic symptoms	11 (21.2%)
	Somatic symptoms	2 (3.8%)
	Drug-related symptoms	5 (9.6%)
	Delirium-related symptoms	16 (30.8%)
	Trauma-related symptoms	2 (3.8%)

Sher L. Post-COVID syndrome and suicide risk Qjm. 2021;114(2):95–8. https://doi.org/10.1093/qjmed/hcab007.

#### CL presentations important findings

- COVID-19 as a hyper-serotonergic state:
  - Close to 4 % of consults were missed serotonin syndrome
  - Initial RFC was to rule out agitation in the setting of delirium patients prescribed several medications that increased their risk of the illness (fentanyl, linezolid, ondansetron, and selective serotonin reuptake inhibitors)
  - Zaid et al. showed that platelets are potentially hyperactivated in individuals with COVID-19, leading to increased plasma serotonin levels (particularly in patients with diarrhea)
- COVID-19 and post-mechanical ventilation "I forgot how to breathe" panic compounded on organic respiratory symptoms:
  - Bigger role for health psychologists in non-delirious anxiety
  - Implemented Johns Hopkins University physical therapy diaphragmatic breathing exercises
  - Meds: low dose antipsychotics preferred over benzodiazepines

# Thinking Outside the Box: "L is for *meta*-liaison"

**Table 3.** Prevalence of psychological distress and psychiatric symptoms in the sample of participants as per the GHQ-28, the PSS-10, and IES-R.

Scales		N (%)
		N=150
GHQ-28	Low risk of acute distress	62 (41.3)
	High risk of acute distress	88 (58.7)
PSS-10	Low/Moderate stress	134 (89.3)
	High stress	16 (10.7)
IES-R	No concern for PTSD	105 (70.0)
	Clinical concern/probable diagnosis/highly suggestive of PTSD	

- Term coined by Damir Huremovic, MD (ACLP)
- Highlights the need more than ever to liaise with and support our colleagues on the frontlines (but also with everyone else)
- We conducted a survey during the first wave at AUBMC between April and May 2020 – MDs and RNs
  - About half showed a high risk of acute distress (58.7%) on the GHQ-28
  - The IES-R revealed concern for post-traumatic stress in one-third of participants, significantly in nurses (p = 0.008) and those living with vulnerable individuals (p = 0.030).
  - Mental health history did not increase the risk assume everyone is at risk!
- The Psychiatry Department at AUBMC Launched Mental Health First Aid Support Groups for in-house HCW.

# Thinking Outside the Box: Trainees as colleagues

- Two years (So far) out of four years of training affected by COVID-19 conditions, presentations, protective measures, challenges establishing rapport with patients
- You are learning with them
- Embed them in the response key in psychoeducating nurses and critical care teams on behavioral management of delirium "restraints are the enemy"
- Read and appraise the emerging literature together
- Be open to their suggestions



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# Thinking Outside the Box: Research Implications

- Create the literature –
- Encourage trainees to write up the anectodal observations
- This will likely be researched for another few years

Psychiatric Quarterly https://doi.org/10.1007/s11126-021-09944-5

#### **ORIGINAL PAPER**



#### Emerging Psychiatric Themes in Post-COVID-19 Patients on a Psychiatry Consultation-liaison Service

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Accepted: 22 August 2021

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# Thinking Outside the Box: **COVID Brain -**Bracing ourselves for the Long Haul

- In our chart review, one patient required stimulants for the management of post-COVID-19 brain fog and fatigue.
- Several emerging reports described a new and common entity of "long haulers", where patients experience brain fog, fatigue, cognitive changes, and poor concentration among other symptoms months following the resolution of the infection.
- The patient in our study responded to atomoxetine, which goes along with the results of a case series that reported modafinil, another stimulant, as an avenue to combat fatigue and maintain wakefulness in patients with COVID-19 infection

# Challenges to delivering CLP care during a pandemic

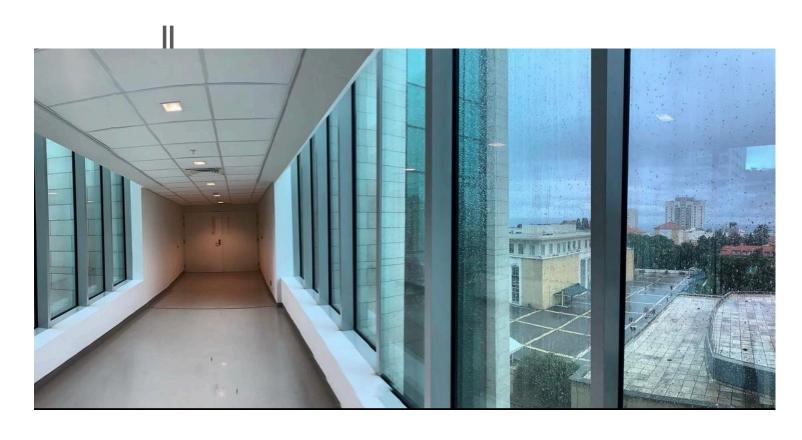
- Dual objective of maintaining coverage as close to original set up as possible, whole maintaining flexibility:
- Address the massive shift in patient population and mental health needs within the system
- Identify covid-19 associated neuropsychiatric and psychiatric sequelae and formulate treatment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

#### Skill set 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
- Unique features of this pandemic:
  - a significant exposure risk for population and providers, including mental health providers
  - Social disruption due to measures imposed after the global failure to contain

## CL perks at AUBMC





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#### Thank You!

