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HUMBER RIVER HOSPITAL
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STANDARDIZING AN EMERGENCY ROOM MEDICAL ASSESSMENT STABILITY/CLEARANCE PROTOCOL FOR QUALITY IMPROVEMENT: A PILOT COLLABORATION BETWEEN EMERGENCY MEDICINE AND MENTAL HEALTH PROFESSIONALS

CCMHC CONFERENCE – TORONTO - JUNE 20TH, 2014

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Objectives

- To explore barriers to quality of care for psych patients presenting to the ED
- To discuss a CLHIN pilot project aimed at improving quality of care for these patients via a structural intervention (medical stability protocol)

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No Disclosures Relevant to Current Presentation

Dr. Ungar has received Speaker's Bureau/Honoraria from Astra Zeneca, Eli Lilly, Janssen, Otsuka, Purdue, Pfizer, Sunovion.
He owns Mental Health Minute Inc.

Dr. Bingham's participation (background research, creating presentation slides and posters) was supported through a microgrant via the NYGH Foundation

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Outline

1. Define medical stability
2. Discuss evidence demonstrating deficits in quality of care for patients with psychiatric presentations in the ED
3. Explore possible barriers to equitable care
4. Describe the pilot implementation of our medical stability protocol and discuss its results
5. Challenges, next steps and lessons learned

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Medical Stability: Definition

- Formerly known as "medical clearance"
  - No currently accepted, standardized process of medical clearance
- Determines correct disposition for patient—psych unit, ongoing observation in emergency department (ED), internal medicine (Emembolu and Zun, 2010)
  - *Right care, right time, right place*
  - Medically stable/no obvious medical contraindications for admission to psychiatric unit
  - Presentation a psychiatric manifestation of an "organic" condition?
  - Involves **history** and **physical/mental status exam**, as well as laboratory testing/other studies as indicated

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Quality and Risk: Psych Patients in ED

- Medical findings in psychiatric patients found to be 24-80%; higher in patients with dementia (Tintinalli et al, 1994)
- Study of a large cohort of psych inpatients: 4% required acute medical tx/transfer within 24 hours of admission; 80% of these cases had findings that were "easily demonstrable" on Hx and Px (Tintinalli et al, 1994)
- Evidence that physical exams/vitals on psych patients in ED underperformed and/or under-documented (Bursey et al, 2010)

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Equitable ED Care and Stigma

Atzema, Schull and Tu, 2011:

•Retrospective population-based cohort analysis involving patients with acute myocardial infarction admitted to 96 acute care ON hospitals 2004-2005 (n=6784)

Table 3: Adjusted odds of receiving a low-priority triage score and of missing benchmark times for process of care when patients had a charted record of depression versus asthma or chronic obstructive pulmonary disease

Characteristic	Depression (95% CI)	Asthma (95% CI)	COPD (95% CI)
Low-priority triage score (3, 4 or 5)	1.26 (1.05–1.51)	0.88 (0.71–1.09)	1.13 (0.92–1.38)
Missed door-to-ECG time	1.39 (1.16–1.67)	0.99 (0.80–1.25)	1.22 (1.00–1.43)
Missed door-to-needle time	1.62 (1.01–2.61)	0.81 (0.50–1.32)	1.15 (0.70–1.87)
Missed door-to-balloon time	9.12 (1.44–57.7)	0.39 (0.05–2.86)	1.33 (0.23–7.69)

Note: CI = confidence interval, COPD = chronic obstructive pulmonary disease, ECG = electrocardiogram.

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Challenge: Equitable Care

- Clinical observations from our ED's:
  - Premature psych referrals in the ED (i.e. patients not "medically stable")
    - Intoxicated or delirious patients, lack of physical exam documentation, lack of pertinent lab ix
- Possible barriers to quality of care:
  - Inadequate education of psych and ED staff
  - Differing expectations/comfort levels between psych and ED staff re: "medical clearance"
  - Common area of inter-professional conflict – patient "ping-pong"
  - Individual and institutional stigma
  - Diagnostic overshadowing phenomenon- increases risk
- **Bottom line: need to promote equitable quality of ED assessments for patients with psychiatric presentations**

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Evidence for Routine Investigations

- No evidence that routine laboratory investigations change disposition of psychiatric patients in the ED in the context of **appropriate histories and physical exams** (Janiak and Atteberry, 2012)
- The American College of Emergency Physicians' (ACEP) clinical policy suggests that testing should be guided by history and physical/mental status exam:
  - *"Routine laboratory testing of all patients is of very low yield and need not be performed as part of the ED assessment"*(Lukens et al, 2006)
- Limited evidence that routine urine drug screening affects management in the ED beyond self-report, but adds to wait-times (Kroll et al, 2013)

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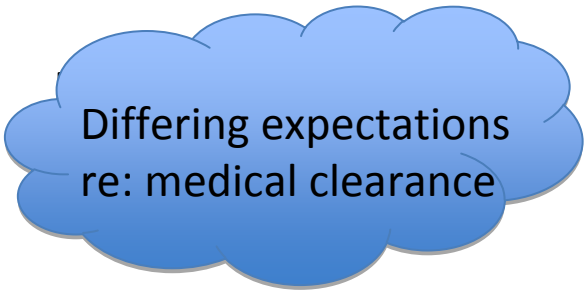
Possible Solution



STANDARDIZED PROTOCOL

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Evidence for Use of Medical Stability Standardized Protocols

- Very limited literature
- Zun et al, 2013: application of a medical stability protocol for use in the transfer of patients from the psych ED to state-operated facilities resulted in **significant cost-savings**
  - There was no significant change in transfer time of patients, but this may have been related to the transfer process itself

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Summary of Pilot Protocol Implementation

PLANNING PHASE (2013-14)

-Convened small working group of psych and ED leadership (NYGH and HRRH)

-Performed literature review

-Elicited feedback from stakeholders (ED and psychiatry leadership and front-line staff)

-Involved Local Health Integration Network (LHIN) to promote engagement and circumvent institutional stigma

-Adapted potential protocol from one available in the literature for use in psych patients being transferred from ED

ACTION (March 3-28, 2014)

-3 week pilot protocol at two institutions: NYGH and HRRH

-Population: all patients (adult and children) presenting to hospital with a mental health issue and requiring admission

ASSESSMENT (March 3-28, 2014)

-Elicited feedback from ED physicians re: protocol

NEXT STEPS

-Ongoing improvement of protocol based on feedback

-Use HRRH as a model of successful implementation for the rest of the LHIN

-Include Medical Stability Checklist in the Bed Registry Protocol document

Thanks to Ashley Hogue from the Central LHIN for assistance in developing this flow sheet

Child/Adolescent and Adult
Emergency Department Transfer to Mental Health/Addictions Inpatient Unit
MENTAL HEALTH MEDICAL STABILITY CHECKLIST

1)	Is this the first presentation of a psychiatric/mental health/ psychotic problem?	□Yes	□ No
2)	Abnormal physical exam? (A physical exam must be done)	□Yes	□ No
3)	New physical complaint (s)?	□Yes	□ No
4)	History of active or chronic medical illness needing evaluation?	□Yes	□ No
5)	Significantly abnormal vital signs?	□Yes	□ No
6)	Altered level of consciousness or fluctuating mental status?	□Yes	□ No
7)	Evidence of intoxication or withdrawal or known history of substance abuse?	□Yes	□ No
8)	Suspicion of pregnancy?	□Yes	□ No
9)	History of malignancy?	□Yes	□ No

If no to all of the above questions consider no further investigations and proceed to question #11

If yes to any of the above questions, use clinical judgment to consider which if any further investigations are required.

10) Investigation ordered (if indicated):

- Laboratory Test □Yes □ No
  CBC, Electrolytes, Urea, Creatinine, Osmol,
  ETOH, ASA, Acet., Beta, HCG (for female patients)
- Urine Toxicology □Yes □ No
- ECG □Yes □ No
- Diagnostic imaging □Yes □ No
- Other □ Specify: _____

11) Medications reviewed (and ordered if appropriate)? □Yes □ No

Patient's medical condition is sufficiently stable for transfer/admission to a Mental Health Inpatient Unit?
□Yes □No

Treatments Done in the ED & Additional Comments

Completed by: _____ _____ _____ _____
Physician Signature | Printed Name Ref Number | Date | Time

(Adapted from Zun LS, Downey L, Primary Care Psychiatry, Vol 14, No 11, 2007)

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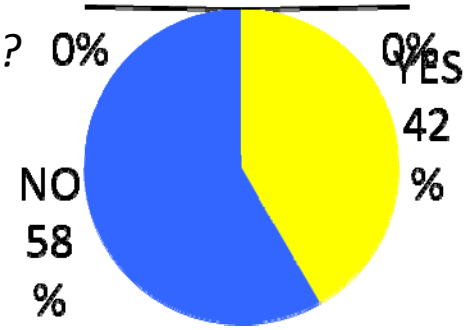
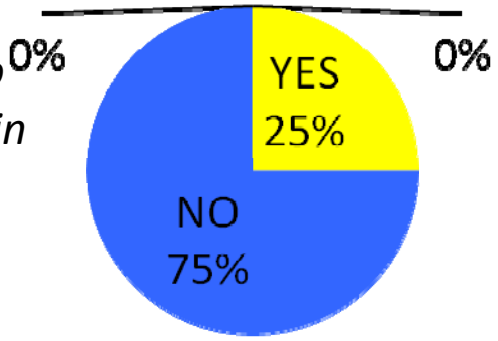
Quantitative User Feedback from Pilot

N=12 **NYGH** ED physicians

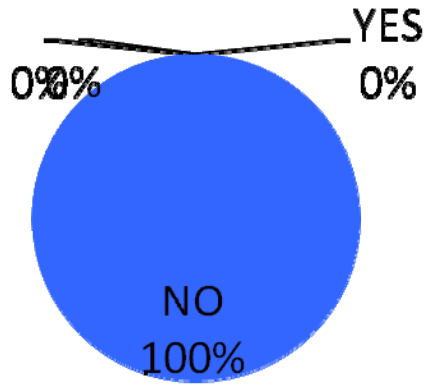
User friendly?



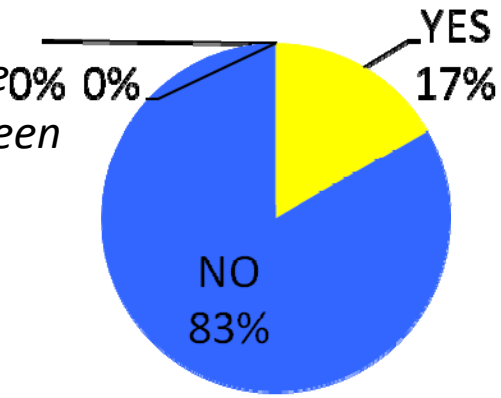
Will tool contribute to decreased variability in determining medical stability?



Relevant tests/questions missing?



Will tool help improve transfer of care between services?



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Qualitative Feedback From Pilot

Select comments from narrative component of feedback form:

- Questions vague
- Physical exam should be done at physician's discretion
- Tool does not allow for clinical judgment (unanimous opinion)
- Prescriptive nature means that some medical concerns may be missed
- Too many forms already for mental health patients
- Not clear why tool is even required
- May be acceptable for use in transfers only (not all ED mental health patients)
- **Overall: NYGH ED physicians not in favour of protocol**

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However.....

- Generally **positive** feedback from HRRH. Found protocol complete, user friendly and felt it would decrease variability in determining medical stability and help improve transfer of care between services
- ED staff at HRRH considering using protocol for ALL psychiatric patients (not just transfers)
- Possible reasons for discrepancy between sites:
  - Laboratory investigations ordered routinely at HRRH (ix of psych patients more limited at NYGH)
  - Protocol may actually save time/money
  - Staff engagement→ physicians, RN's, ward clerks

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Challenges

- Individual and institutional stigma involving patients presenting with mental health/behavioral concerns
- Differences in ED and psychiatry cultures
- Differing resources between services (e.g. ease of performing blood work on psych units vs. ED)
- Tests that guide initial psychiatric management (e.g. urine tox) may not change ED management→ conflict over whether testing should be done in ED

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Next Steps

- Understand protocol as a technical intervention to address sociocultural problems (stigma as a barrier to quality of care)
- Ongoing revision of protocol based on feedback from staff
- HRRH as a model for effective implementation of protocol
- Consider implementation of structural requirement for protocol use despite resistance (e.g. accreditation mandate? Required organizational practice? Mandatory quality dashboard metric?)

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Lessons Learned

- Engagement and leadership by ED practitioners is key, along with MH involvement
- Have yet to include patient and family members in the QI
- Clash of technical intervention vs. professional judgement/expertise
- Informed by IPC/IPE Inter-professional Collaborative Care/Education competency of clarifying roles and responsibilities (Barr, 1998)
- Variable acceptance based on local hospital cultures-NYGH ED saw it as slowing flow, HRRH as speeding flow
- Form 1 Involuntary certification OHIP service billing code requires "necessary history [and] examination"
- Reflect on whether quality improvement process is best served by gradual engagement and culture change vs. structural quality improvement intervention by required policy and legislative change (evidence based stigma reduction strategy by Stuart and Arboleda Florez, 2012)
- Continue the QI lens: reduced risk, improved outcomes, satisfaction, lower cost, shortened wait times, better investigation/resource utilization

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Thank You

Questions?

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