Use of Observation Care Pathways for Behavioral Health Patients in Northwell Emergency Departments Clinical Decision Units (CDU)

Northwell Health

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PROJECT OVERVIEW

Increasing behavioral health patient volume, severity of illness, and decreased inpatient care resources have resulted in extended emergency department (ED) length of stay.

Observation care has been a standard within emergency medicine for treating patients with diagnostic uncertainty or those who may benefit from protocol-based interventions to avoid admission. Patients who seek emergency behavioral health (BH) care are often not ready for timely discharge, require collateral history for safe discharge, and may benefit from medication intervention and reevaluation.

A new clinical protocol and algorithm for behavioral health observation was created. The aim was to create a standard for short-term treatments, assessment, and re-assessment of behavioral health patients for whom diagnosis and a determination concerning inpatient admission, discharge, or transfer is expected to take greater than 8 hours.

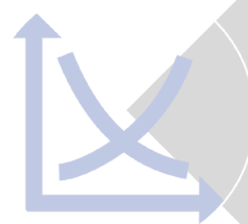
Throughout the pilot phase of implementing a new BH clinical protocol for CDU, 153 patients treated without any increase in expense yielded a significant increase in facility and professional revenue. There was no impact on constant observation hours, ED length of stay and inpatient BH admission rates.

BACKGROUND

1 in 5 U.S. adults experience mental illness each year; 1 in 20 U.S. adults experience serious mental illness each year.

Suicide is the 2nd leading cause of death among people aged 10-14, the 3rd leading cause of death among those aged 15-24 in the U.S., and the 12th leading cause of death overall in the U.S.

Nationally, 1 in 8 ED visits are related to mental health/substance use issue.



Cost of care versus reimbursement mismatch.

Observation level of care being provided at an ED reimbursement rate.

Variable standard for ongoing management and re-evaluation for behavioral health patient who have an extended emergency department length of stay.

Increased ED boarding of BH patients; TJC recommends implementation of BH CDU to avoidable brief admissions.

REFERENCES

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GOALS

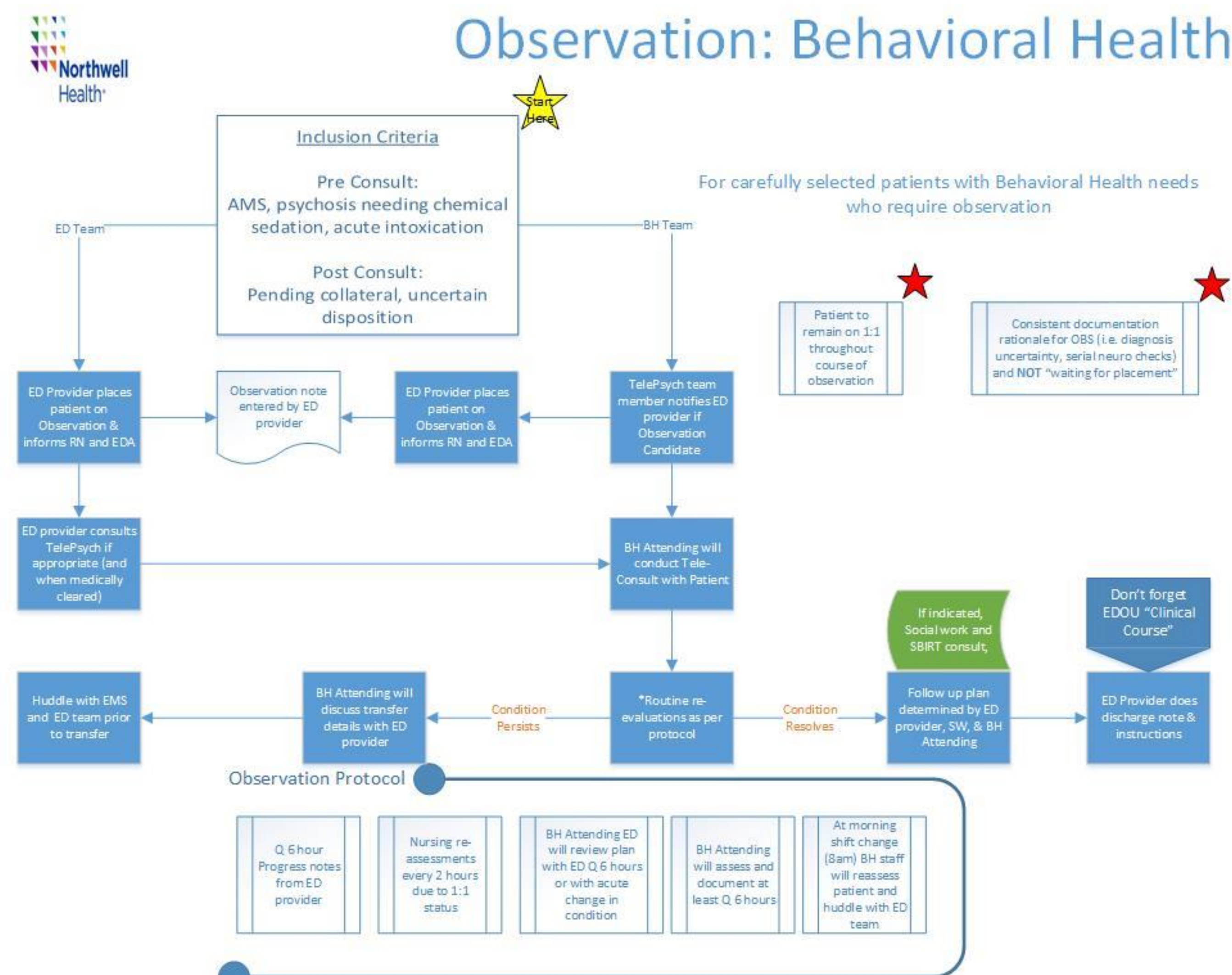
Introduce a new observation model of care for behavioral health (BH) patients in Northwell Emergency Departments (EDs) with existing Clinical Decision Units (CDU), based on continuous collaboration between ED and BH teams.

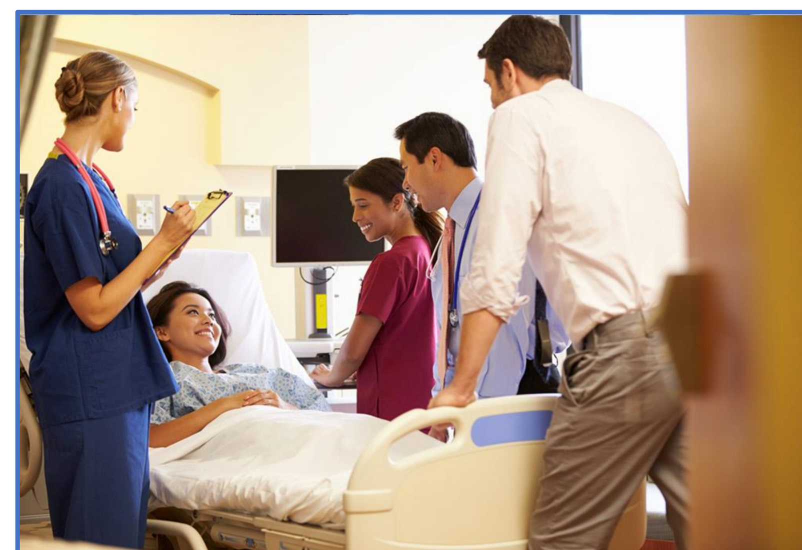
Ensure Appropriate billing classification for patients receiving Clinical Decision Unit level of care.

Increase professional and facility revenue associated with behavioral patients placed in clinical decision units.

Study the impact that BH CDU model of care would have on ED length of stay, constant observation, and inpatient admission rates.

CLINICAL ALGORITHM





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MEASURES

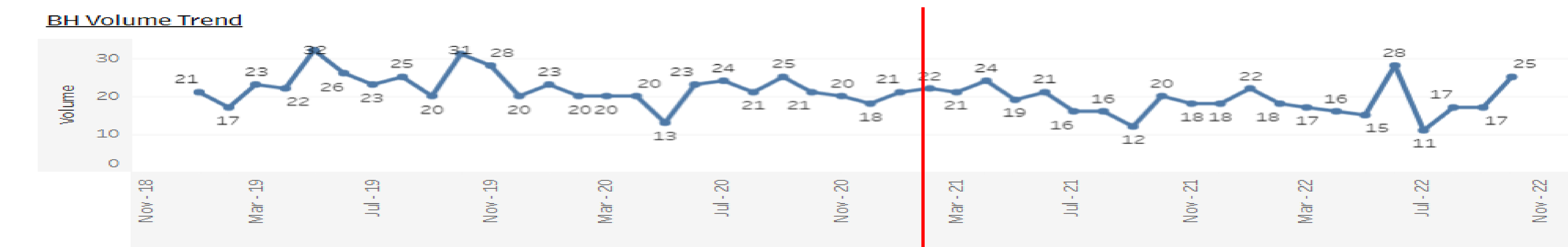

Chart 1: BH Volume Trend by Month

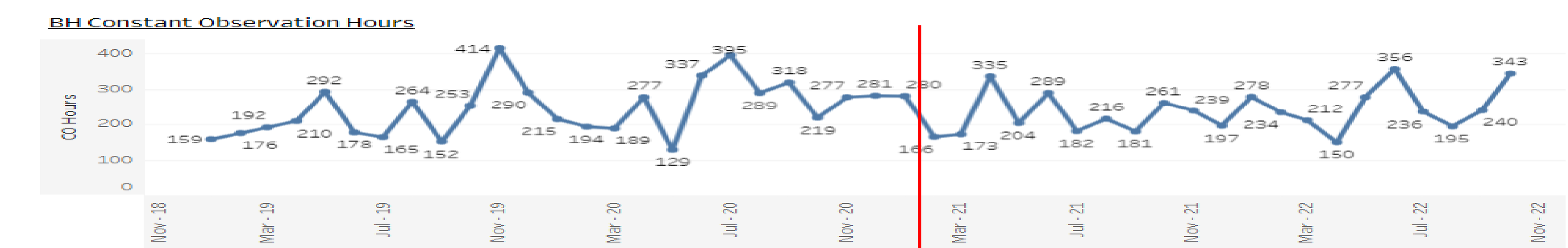

Chart 2: Constant Observation Hours Trend by Month

Year	BH Volume	BH Admit Rate	CDU Daily Avg. Volume
2019	298	47%	3.4
2020	*Excluded*		2.6
2021	229	42%	2.3
2022*	135	50%	2.3

*Includes Jan - Oct.

Chart 3: BH Volume, BH Admit Rate, CDU Daily Avg Volume by Year

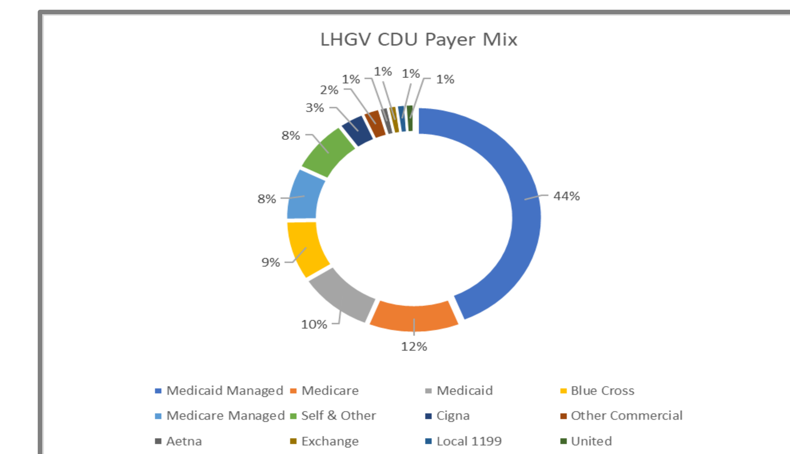

Chart 4: LHGV CDU Payer Mix

Financial Review		
Volume	153	
Covert to Inpatient	45	29%
Out Patient	108	71%
Billed as OBS	97	90%
Program Expenses	$0	
Increased Professional Revenue (Est)	$7,384.00	
Increased Facility Revenue (Actual)	$146,761.00	
Total Revenue	$154.145.00	

Chart 5: Financial Review of BH OBS Patients

OUTCOME

Over the pilot phase, 2/10/21-10/31/22, a total of 153 patients received BH observation care at the LHGV ED. Of the 153 patients treated, there was a 29% conversion rate to inpatient level of care. There was no associated increase in constant observation care hours or ED length of stay for this population, and the admission rate remained flat.

The interventions associated with this pilot did not require any increase in ED, CDU or Psychiatry staff or program related expenses. Financial review of billing and collections revealed an increased facility revenue of $1,513 per case that converted from ED to OBS status. The payer mix for this patient population at LHGV is 66% Medicare/Medicaid. The increased facility revenue was $146,761 along with an estimated professional revenue of $7,384.

FUTURE POTENTIAL

Explore expanding this model to EDs with an existing CDUs; those departments include SIUH North ED, NSUH ED, LIJ ED, and SSUH ED. An expanded program could have the potential to reduce avoidable brief psychiatry admissions, creating inpatient capacity for higher-acuity ED BH patients throughout the system.

A preliminary projection of patient volume estimates an additional conversion of 4.5 patients/day across these 4 EDs. In order to accommodate this increase in CDU volume, a site-by-site analysis would be needed to determine space and staffing needs to implement this model.

Based on financial review of payer mix and LHGV actual revenue, this expansion of service could potentially yield an increase in facility revenue of $3,206,864 and professional revenue of $85,467. The financial analysis can be provided upon request.