

*\*If patient has a history of acute psych need but their current chief complaint is medical with no Behavioral Health symptoms, then the patient may need further evaluation to determine if precautions are needed. If patient is at risk of harm to self or others, Universal Behavioral Precautions should be placed immediately, even before patient is roomed*

## TIP SHEET: Pediatric patients with a Heme/Onc diagnosis in the Emergency Department

### #1 Tip Accessing Mediports

- You can use LMX on your patient's port- it takes approx. 30 minutes to being working.
  - Educate your patients on applying LMX on port sites before coming to ED saves time/pain/fear for the child! → they can ask their heme/onc provider for this script
- Confirm if the mediport is power injectable or not, access with the correct needle (powerloc needles for power injectable ports or miniloc needles for non-power injectable ports). Confirmation is done via procedural note, x-ray imaging or patient device info wallet card.
  - Power ports will show a unique triangular symbol on imaging→
  - **\*\*Palpation for triangular shape, and 3 "dots" that are palpable on top of the skin are not methods of verification (other companies mimic this and we can ruin the patient's port)**
- Confirm if the mediport is a single lumen or double lumen. If it is a double lumen-**both** ports must be accessed.
  - Access them at the same time—get extra sets of hands so you don't break sterility!



### #2 Blood Cultures

- Febrile patients with multiple lines should have **blood cultures drawn from each lumen.**
- RNs should draw back prior to flushing and use the first blood from each lumen for the blood culture sample. For mediports this is the blood drawn back to confirm placement.

### #3 Temperature assessment

- **No rectal temperatures!!!**
- Preferred temperature method is axillary or oral, not NCIT

### #4 Care of Fever and Neutropenic Patients

- ANC <500: Severe neutropenia- significant risk of infection, patients with a fever above 38 will be admitted for IV antibiotics, should be placed in protective isolation and must wear a mask in the hallway.
- ANC <200: Severe neutropenia The body doesn't have enough WBC's to combat infection. The patient should be confined to the room, with the exception of essential tests, must wear a mask in the hallway.
- Meticulous hand hygiene
- Screen family members for symptoms of potential respiratory and viral infections
- Notify MD of temp of 38 and above
- Draw blood cultures
- Alternate lumens with each administration of antibiotic and document lumen utilized in eMAR
- Maintain separate IV tubing for each lumen of PICC, central line or port
- Provide adequate hydration

## Weight-Based HFNC Pathway: Comer Children's Hospital

### **Bronchiolitis**

Viral lower respiratory tract infection that causes bronchiole inflammation and increases mucus production

- Inflammation/mucus → obstructs airway → wheeze
- Treatment: Treat the symptoms → O<sub>2</sub>/HFNC as indicated, hydration, suction, time
  - These wheezers/ bronchiolitis do not require asthmatic management/ bronchodilators

Literature suggests that weight-based high flow for children with bronchiolitis may:

- provide improvement in work of breathing
- decrease ICU use and noninvasive ventilation use
- decrease incidence of treatment failure
- improve hospital resource use (ie: dedicate ICU beds for ICU patients, decrease incidence of PET calls on floor)

### **High Flow Nasal Cannula (HFNC)**

- |                                           |                   |                                 |
|-------------------------------------------|-------------------|---------------------------------|
| • Mixture of heated and humidified air    | <b>Components</b> | » Oxygen/Air Blender            |
| + oxygen                                  |                   | » Sterile Water                 |
| • FiO <sub>2</sub> : % of oxygen          |                   | » Circuit and Cannula           |
|                                           |                   | » Oxygen Tubing                 |
| • Liters Per Minute (LPM): flow of oxygen |                   | » Pressure Relief Valve         |
|                                           |                   | » Heater                        |
|                                           | <b>Function</b>   | » 21-100% FiO <sub>2</sub>      |
|                                           |                   | » 1-25 LPM                      |
|                                           |                   | » 30-37°C                       |
|                                           |                   | » 10-44mg/L RH (humidification) |



### **Mechanisms of HFNC** → **\*\*HFNC is indicated for bronchiolitis or viral lower respiratory tract infection → not for asthmatics\*\***

- Washout of nasopharyngeal dead space
  - » HFNC washes out end-expiratory gas
  - » Upper airway full of oxygen-rich air
  - » Each breath the patient takes is full of oxygen-rich air
- Reduction in upper airway resistance
  - » The flows of HFNC are higher than spontaneous inspiratory flow →
  - » Decreases resistance of air in nasopharynx
- Heat and Humidification
  - » Delivering oxygen that is already heated and humidifies demands less stress on the body
  - » Warm, moist air less likely to cause bronchospasm
- Positive Pressure
  - » High pressure in pharynx prevents collapse and can improve WOB
  - » Proper nasal prong fit is essential

## Weight-Based HFNC Pathway: Comer Children's Hospital

### PC 48 HFNC Initial and Titration Guidelines → See AgileMD Pathway: “HFNC Initiation for Non-ICU Settings”

#### Initial:

- Children <10 kg: start @ 1L/kg/min
- Children >10kg: start @ 10L/min + 0.5L/kg for every kg over 10kg
  - EX: 15kg Child
    - 1<sup>st</sup> 10kg= **10 L/min**
    - “Leftover weight”= 5kg, so 5kg \* 0.5 L/kg= **2.5L/ min**
    - **10 L/min +2.5 L= 12.5 L/min**

#### Titration:

- Physician will order to decrease oxygen flow L/min as tolerated
  - Wean FiO<sub>2</sub> ≤ 0.30 **first** to maintain SpO<sub>2</sub> ≥ 90%, followed by LPM/flow rate as tolerated
    - **RN and/or RT should re-assess and document SIS/PAS (Bronchiolitis Scoring/Asthma Score Assessment) within 30 min**

#### Accessing SIS and PAS Scores to Document:

1. You can view both scores via the ED Narrator. On the Right hand side under “Assessments”:
  - a. Asthma Score Assessment → This is the “PAS” score for children ≥ 2 years
  - b. Bronchiolitis Scoring → This is the “SIS” score for children ≤ 2 years

The screenshot displays the ED Narrator interface. The main window shows a table of events for a patient, with the following data:

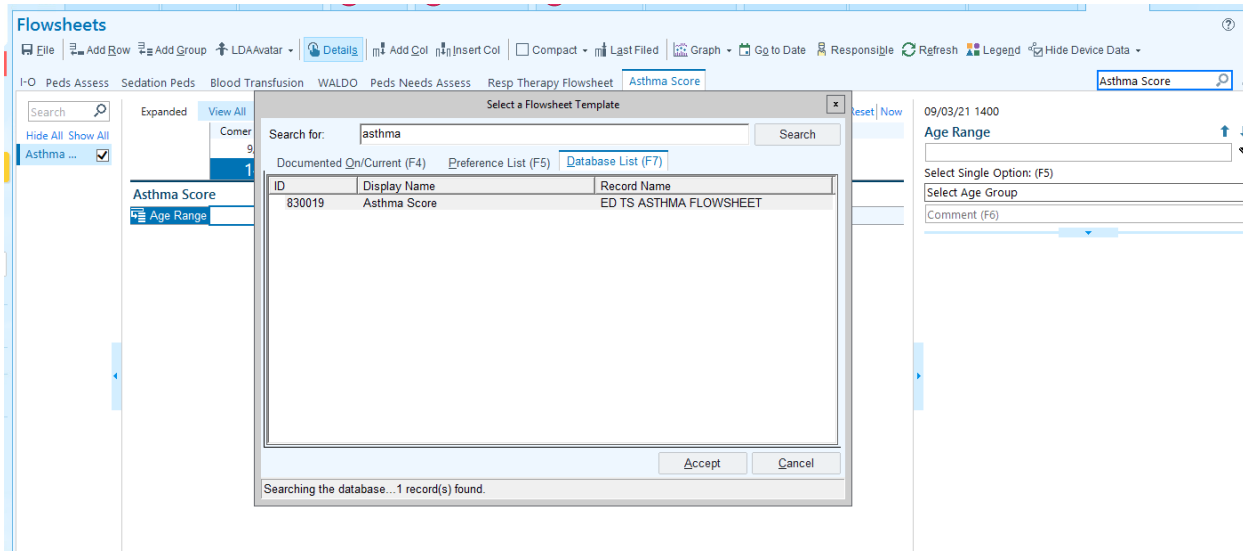
Time	Event	Details	User
14:00	[UNVALIDATED DEVICE DATA]	<b>Vital Signs - Heart Rate/Pulse: 179 ! Resp: 38 SpO2: 93 %</b>	
13:55	Respiratory Assessment	<b>Respiratory - Assessment: WDP</b> Respiratory Assessment - Airway Patency: Patent Cough: Occasional Retractions: Absent Nasal Flaring: Absent Breath Sounds Right: Rhonchi Breath Sounds Left: Rhonchi Wheezes: None Chest Expansion: Symmetric Respiratory Pattern: Regular	KK
13:55	albuterol (PROVENTIL) inhalation Completed	Linked to override pull: ALBUTEROL SULFATE CONCENTRATE 5 MG/ML(0.5 %) SOLUTION FOR NEBULIZATION Route: Nebulization	KK
13:54	Vitals	<b>Vital Signs - Temp: 38 °C (100.4 °F) Heart Rate/Pulse: 174 ! Resp: 40 SpO2: 96 %</b> O2 Delivery: Room Air	KK
13:54	Vitals Reassessment	<b>Vital Signs - Automatic Restart Vitals Timer: Yes</b>	KK
13:45	[UNVALIDATED]	<b>Vital Signs - Heart Rate/Pulse: 183 ! Resp: 44 ! SpO2: 98 %</b>	

On the right side of the interface, under the "Assessments" section, the following items are listed:

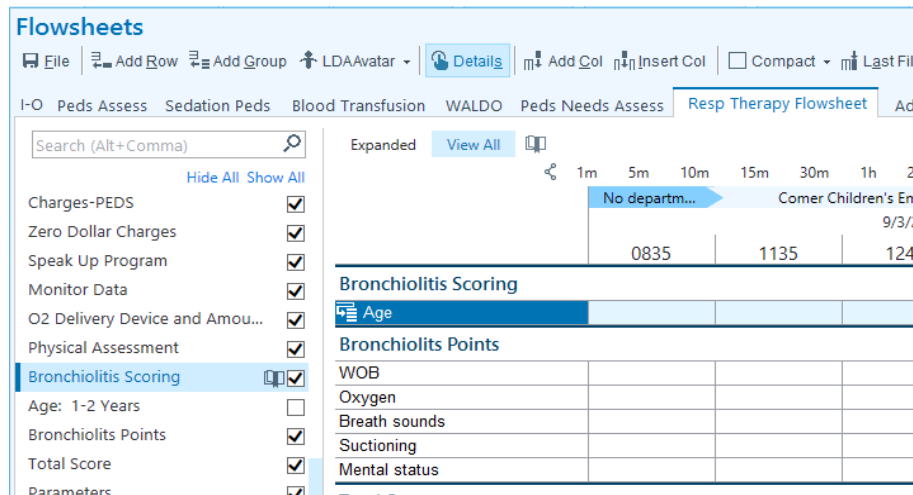
- Existing LDAs (1)
  - PIV 09/03/21 1200 Venous Catheter 22G Right Antecubital
- Assessments
  - Neuro Assessment (✓)
  - ENT Assessment (✓)
  - Respiratory Assessment (✓)
  - Asthma Score Assessment (○)
  - Bronchiolitis Scoring (○)
  - Cardiac Assessment (✗)
  - GI/GU/GYN (✓)
  - Musculoskeletal Assessment (✓)
  - Skin Assessment (✓)
  - Psychiatric Assessment (✗)
  - Isolation Assessment (○)

Weight-Based HFNC Pathway: Comer Children’s Hospital

- 2. You can view both scores via Flowsheets.
  - a. Asthma Score → this is the “PAS” score for children  $\geq 2$  years
    - i. Flowsheets → search “asthma score” → click “database list” → accept



- b. Bronchiolitis Scoring → This is the “SIS” score for children  $\leq 2$  years
  - i. Flowsheets → “Resp Therapy Flowsheet” → left column says “Bronchiolitis Scoring” → fill out information → Total Score
  - ii. This will not show up for children  $>2$  years of age, as those children require PAS/asthma score



Weight-Based HFNC Pathway: Comer Children’s Hospital

- iii. Fill in the flowsheet questions as shown below to produce a “bronchiolitis total score”→ This is the SIS score.
  - 1. Refer to the AgileMD Pathway “HFNC Initiation for Non-ICU Settings” if needed

The screenshot displays a medical flowsheet for a patient at Comer Children's Hospital. The main table shows vital signs and assessment findings for 0835, 1135, 1242, and 1400. The 'Suctioning' row is highlighted with a score of 3. The 'Bronchiolitis Total Score' is calculated as 8. To the right, the 'Value Information' panel shows the score of 8 (P) was taken by Katherine Debner, R.N. at 09/03/21 1404. Below this, 'Group Information' lists management steps for Mild (SIS ≤ 7), Moderate (SIS = 8-11), and Severe (SIS ≥ 12) bronchiolitis.

	0835	1135	1242	1400	1404
Retractions	Absent	Absent			
Nasal Flaring	Absent	Absent			
Accessory Muscles					
<b>Bronchiolitis Scoring</b>					
Age	1-2 years				
Age: 3-12 months					
Respiratory rate					
<b>Bronchiolitis Points</b>					
WOB					2
Oxygen					1
Breath sounds					1
Suctioning					1
Mental status					2
<b>Total Score</b>					
Bronchiolitis Total Score					8
<b>Parameters</b>					
DLCO					

- 2. Please note the given options for suctioning:
  - a. Bulb (1); Bulb/wall (2) & Wall (3)→ this means that if we are using wall suction [which is generally what nurses use in the hospital setting], the child automatically scores a 3.
    - i. This can create unnecessary higher SIS score, and this concern has been communicated to the policy/practice development team and is awaiting clarification
    - ii. **Suggestion:** Treat this section more as: mild amount (1); moderate amount (2) and copious amount (3) of secretions needing to be suctioned

This screenshot shows the 'Suctioning' section of the AgileMD flowsheet. The 'Suctioning' row is selected, and a dropdown menu is open showing three options: 1=Bulb, 2=Bulb/wall, and 3=Wall. The '3=Wall' option is currently selected. The 'Value Information' panel on the right shows a score of 3 (P) taken by Katherine C. at 09/03/21 1404.

Katie Debner BSN, RN, CPEN  
Emergency Department C.N.E  
FY22

Weight-Based HFNC Pathway: Comer Children's Hospital

**PC 48 HFNC Important Note: If a patient is requiring >2L/k/min HFNC, consider alternative respiratory therapies (ie: BiPap)**

**PC 48 HFNC Patient from Comer ED to Comer 5 [see agileMD pathway for exclusion criteria]:**

❖ Patient Inclusion Criteria (must meet all criteria):

- Ages 3 years and under
- Patient with features of bronchiolitis or viral lower respiratory tract infection
- Requiring HFNC for increased WOB or to maintain SpO<sub>2</sub>>90%
- Must be stable on appropriate flow rate and FiO<sub>2</sub> for a minimum of 2 hours

❖ Max Parameters on Comer 5: \*\*\*If a patient requires THEIR weight based maximum, they must go to PICU\*\*\*

- Pts < 10 kg: 1.0 L/kg/min
- Pts > 10 kg: 1.0L/kg/min for first 10 kg + 0.5 LPM for each kg over 10 kg with absolute max of 15LPM
- FiO<sub>2</sub> < 0.5 (50%)
  - Examples:
    - Pt on Comer 5 is 8kg → 1L/kg/min max → max. for this child on Comer 5 is 8 LPM of HFNC
    - Pt on Comer 5 is 20 kg → max. for this child on Comer 5 is 15 LPM of HFNC

**PC 48 HFNC Patient from Comer ED to PICU:**

- Pt requires greater than their weight-based HFNC parameters, or the hard max:
  - » > 1L/kg/min for first 10kg + 0.5 L/kg/min for each kg above 10 kg
  - » > 15 LPM
- Require FiO<sub>2</sub> > 50 % to maintain SpO<sub>2</sub>, and/or
- Infant/child requiring HFNC with SIS/PAS ≥12

**Potential Barriers:**

- **No weight?-->** Use Broselow tape, estimated weight from parents, or obtain weight between phone call to RT for HFNC and their arrival
  - Once obtained, enter measured weight into EMR and adjust HFNC as needed to correct weight-based dose
- **No documented SIS/PAS score to titrate→** the contents of the SIS/PAS score include: WOB, oxygen, breath sounds, suctioning, mental status→ if you do not have a score but know that your patient needs respiratory intervention, help the patient first and document the SIS/PAS as soon as possible.
  - **We cannot skip out on this assessment & documentation→ this score drives how we titrate. Please don't forget to document this before/after titration\***

# USE OF LOCKING RESTRAINTS FOR VIOLENT, SELF-DESTRUCTIVE BEHAVIOR

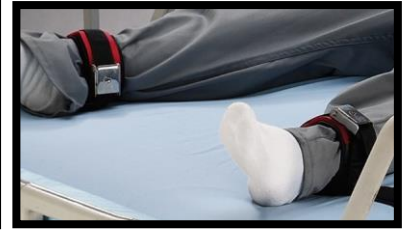
## LOCKING RESTRAINTS

- Used **ONLY** for management of violent **OR** self-destructive behavior
- Secured to non movable part of bed and locked with key



**BLUE:** Upper Extremity

**RED:** Lower Extremity



## ORDERS

- In an emergency RN may place patient in 4 point locking restraints and obtain an order within **one (1) hour** of application
- Orders are time limited and based on patient age. Must be ordered:
  - ≥ 18 yrs of age: Q 4 hours
  - 9—17 yrs of age: Q 2 hours
  - <9 yrs of age: Q 1 hour
- Can be renewed only after the provider confirms, **in writing, following a personal re-evaluation/examination of the patient**, that the restraint does not pose an undue risk to the patient's health in light of the patient's physical or medical condition.
- If discontinued, a new order must be written to reinstate restraint, even if the original order has **NOT** expired. Restraint may **NOT** be reinstated under the original order.

## MONITORING, ASSESSMENT & DOCUMENTATION

- Requires 1:1 continuous observation by a UCM employee (non -agency)
- Document on correct flowsheet: Violent Self-Destructive
- Assessment & documentation must occur, at minimum every 15 minutes and includes:
  - Addressing hygiene, hydration, nutrition, & elimination needs
  - Physical & psychological status
  - Circulation, skin Integrity, and range of motion of extremities in restraint
  - Readiness for discontinuation

## PER PC 27(B)

The type or technique of Restraint or Seclusion used must be the least restrictive intervention that will be effective to protect the patient, a staff member, or others from harm. The type of physical intervention selected will be based on the information learned from the patient's initial assessment. The use of Restraint or Seclusion cannot be based on a patient's Restraint or Seclusion history or solely on a history of dangerous behavior.

For information on the use of soft wrist restraints, see back.

**\*\*For additional information, refer to PC27: Restraints and Seclusion Policy and PC104: Suicide Risk Screening and Precautions for Patients policies available on the Hospital Intranet\*\***



## SOFT WRIST RESTRAINTS

- 4 point soft wrist restraints may be utilized as an alternative to locking restraints for managing violent, self-destructive behavior. All orders, assessment requirements remain the same as above.
- Restraints ordered for the medical/surgical health of non-violent patients
  - Document on correct flowsheet: Non-Violent/Non-Self-Destructive
  - Includes soft extremity or elbow immobilizers
  - Orders are good for 24 hours
  - Require assessment & Documentation minimally Q2hrs
  - As above, if discontinued, a new order must be written to reinstate restraint, even if the original order has **NOT** expired. Restraint may **NOT** be reinstated under the original order.

# Psychiatric Documentation Requirements

**#1 Tip** Psychiatric Assessments in ED Narrator required every 4 hours or sooner on all psych patients

Do not forget to adjust your time

**#2 Tip** Suicidal and Homicidal Patients also require a Safety Assessment under the Suicide/Homicide Observation tab in the flowsheets every 4 hours

**Safety Assessment (Must Be Completed By RN Every 4 Hours)**

Ask Patient: Do You Feel Safe...			
Do you ever think about hurtin...	Yes		
Plan for Harm	No		
RN Instructed NSA/ERT on Su...			

The Psychiatric Assessment will automatically populate 2 of the 4 questions

**#3 Tip** Violent Restraint Documentation

Every 15 minutes under the Restraint: Violent/Self-Destructive tab in Flowsheets except:

- VIOLENT Order/Justification/Alternatives (Every 4 hours)
- VIOLENT Patient Monitoring (Every 2 hours)

Length of Order	24 hours
Less Restrictive Alternatives	Patient Moved...
Response to Alternatives	Ineffective
Family Notification	Other (Com...
Education	Reviewed all p...
Patient's Response to Education	No Evidence of...

Restraint Used	Yes
Soft Wrist (Left)	START
Soft Wrist (Right)	START

Location Change	Other (Please...
Physical Status	Agitated/Restless
Psychological Status	Confused
Circulation	Peripheral Puls...
Skin Integrity	No Signs of Injury
Range of Motion	Performed
Hygiene	Offered
Hydration	NPO
Nutrition	NPO
Elimination	Offered
Rights, Dignity, and Comfort	WDP
Ready for Discontinuation	No

Length of Order	4 hours (Age 18...
Less Restrictive Alternatives	Patient Moved...
Response to Alternatives	Ineffective
Notify Family	Patient Decline...
Education	Reviewed all po...
Patient's Response to Education	Verbalized Und...

Restraint Used	Yes	Yes	
Locking Left Ankle	CONTINUED	CONTINUED	C
Locking Right Ankle	CONTINUED	CONTINUED	C
Locking Left Wrist	CONTINUED	CONTINUED	C
Locking Right Wrist	CONTINUED	CONTINUED	C

Physician Notified w/in 1 Hour	Yes	Yes
--------------------------------	-----	-----

Location Change	Other (Pleas...	Other (Please s...	
1:1 Continuous Observation	Yes	Yes	
Psychological Status	Alert	Alert	
Circulation	Peripheral puls...	Peripheral puls...	Periph
Skin Integrity	No Signs of Injury	No Signs of Injury	No Sit
Rights, Dignity, and Comfort	WDP	WDP	
Ready for Discontinuation	No	No	

Physical Status	Agitated/Restless	Calm
ROM	Declined	Declined
Hygiene	Offered	Offered
Hydration	Offered	Offered
Nutrition	Offered	Offered
Elimination	Offered	Offered

BH Restraint Status	CONTINUED	CONTINUED	C
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**#4 Tip** Non-Violent restraints every 2 hours under the Restraint: Non-Violent/Non-Destructive tab in flowsheets except: Non-Violent Order/Justification/Alternatives (Every 24 hours)

**\*\*Remember to obtain a new order anytime a restraint is discontinued\*\***

**\*\*\*Remind the ER MDs to add an order for Violent restraints every 4 hours and Non-Violent every 24 hours\*\*\***

# Triage Reassessment Documentation

## #1 Tip Reassessment time frame

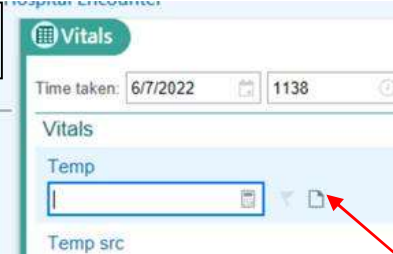
ESI 2&3 require reassessment every 2 hours

ESI 4&5 require reassessment every 4 hours

## #2 Tip When patient is called and there is a "no response"


Document no response in the vitals tab at the appropriate time (adjust your time as needed). If they are not present in the waiting room, document a no response. (i.e. waiting in their car, getting food, standing outside, ....)

1




Left click on the note pad

2



No Response must be typed out, do not use NR

3



Left click on the flag

4

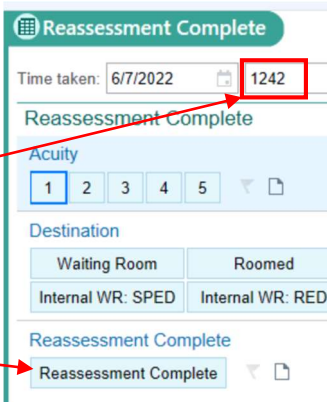


Flagging the comment will make it visible in the chart

## #3 Tip Finishing the Reassessment

The Reassessment Nurse must finish the reassessment documentation. This nurse needs to adjust the time to when this was performed.

Left click on the tab



Reassessment Complete

Time taken: 6/7/2022 1242

Reassessment Complete

Acuity

1 2 3 4 5

Destination

Waiting Room Roomed

Internal WR: SPED Internal WR: RED

Reassessment Complete

Reassessment Complete

\*\*Patients that are targeted for a room are still required to be reassessed while in the waiting room\*\*

# Universal Behavioral Precautions – NEW on 11/29!

Ensuring patient and staff safety during a hospitalization is our priority. To help with this, in Comer **we are changing the 'Suicide Precautions' order to a 'Universal Behavioral Precautions' order** so that it will apply to any patient with acute psychiatric/behavioral symptoms (aggression, psychosis, suicide, etc).

*Timely implementation of precautions, care team communication and documentation is paramount to maintaining patient safety.*

## **ED Care Team Responsibilities:**

1. ED provider or nurse places the 'Universal Behavioral Precautions' order set as soon as a patient is identified as having acute psychiatric/behavioral symptoms
  - Use the 'Pediatric ED Behavioral Health' AgileMD pathway if preferred
2. After MD and Behavioral Health (Synergy) complete their patient assessments, the care team (including SW, BH and Child Life) will huddle to discuss dispo and care plan
3. Modifications to precautions should be discussed by full care team and will be recorded in the 'Peds Behavioral Health MDR' note with a 'Modified Behavioral Precautions' order placed
4. If patient doesn't need medical admission, they can be held in the ED for 72 hours while placement is secured
  - If psych placement can't be found, child psych should be consulted for evaluation and care team should do a care conference (between 48-72 hours)

## **Initial Precautions to Implement in ED:**

- A UCMC-qualified staff member must always stay within 6 feet with a continuous full view of the patient
- Search the patient's environment for potentially harmful items and contraband at admission and after every visitor
- The patient cannot keep personal items in their room; personal items to be removed and secured include Cell Phone or other electronics, keys, clothing, shoes, etc.
- A hospital gown is the only approved clothing for the patient to wear to mitigate elopement
- Patient cannot walk around on unit or visit playroom/healing garden
- Inspection of Safety Food Tray before giving it to the patient
- Nurse will notify public safety (-26262) of BH patient

