

Using Technology to Maintain Behavioral Health Safety Rounding and Nursing Workflows

Brian Tilow, Senior Vice President of Behavioral Health Services

Melinda Otero MSN, RN, CCRN

Cleveland Clinic Nursing Informatics and

Emerging Clinical Solutions Center

October, 2017



Cleveland Clinic Health System

Center for Behavioral Health

- Center for Behavioral Health has 14 Behavioral Health Inpatient Units on 6 of the 14 CCF Ohio campuses offering:
 - Child and Adolescent // Adult// Geriatric // Alcohol and Drug= 267 Beds
- After conducting our annual multi-level environmental and clinical assessments on each of the 14 behavioral health inpatient units we ranked our opportunities to improve our service delivery care models
 - 15 minute rounding was one of many areas identified for improvement
- But who would of even thought developing an “app on I-phone 6 and interface that with the electronic medical record (EPIC)” was even possible

Cleveland Clinic Health System

Center for Behavioral Health

- Some of the learns-
 - Invite the floor nurses to participation with tweaking the application as the paperless 15 minute device piloted
 - Listening to the end user on the ease of the device (5 vs 6)
 - Educate the patients that staff will be looking like they are hanging on the I-phones
 - Real time charting offers accountability and reliability for data collection
 - Spending time with nursing informatics to fully understand the issues and work flows we are attempting to resolve

Purpose

- Enhance patient and caregiver safety in Behavioral Health settings
- Leverage technology to automate the manual paper rounding checklist
- Develop a tool to assist with accountability of patient safety rounds
- Visually prioritize patients who need to be seen next
- Document patient safety rounds directly into the electronic medical record (EMR) in real time
- Increase the efficiency of required fifteen minute patient safety rounds in behavioral health units
- Rounding data interfaces into EMR eliminating the need for physical paper storage

Documenting on Paper

- Two hands
- Head down
- Distracted
- Intensive data entry
- Manual prioritization



Meet the Team

- Caregivers
- Technology leadership
 - Nursing Informatics-ACNO, Liaison and Analysts
 - Clinical Solutions Center-Management and Analyst team
- Nursing Leadership
 - CNO
 - Directors and Managers
 - Assistant Clinical Managers

Scope-Behavioral Health (BH) Units at Marymount

Unit	Specialty	Bed
Gero	Geriatric	28
BHC1	Adult	18
BHCG	Adult	18

Equipment

Each Inpatient Behavioral Health Unit shall receive and identify locations for:

- 2 iPhones/unit
- 2 chargers/unit
- Equipment cleaning process and expected frequency

Staff Education: Standardized across facilities

- All caregivers require education; Future considerations for frequently floated staff to be trained at a later date.
- Estimated time approximately 15 minutes done on units
- Mandatory
- Device User agreement Method / content
- Instructors-Clinical systems support, Liaisons & NI team.
- Handouts-Job

iPhone / IRIS Application Education Needs:

Login and logout into the IRIS APP on the iPhone using your Epic sign on / password

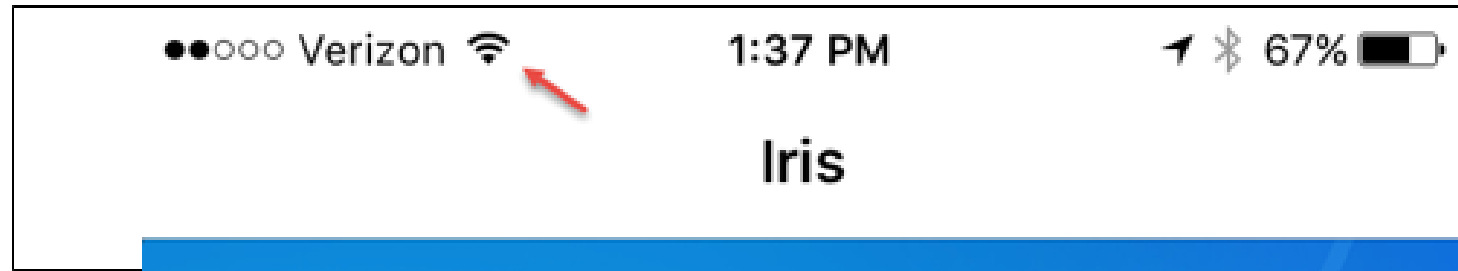
Hold down the patient name to open the documentation screen

Document:

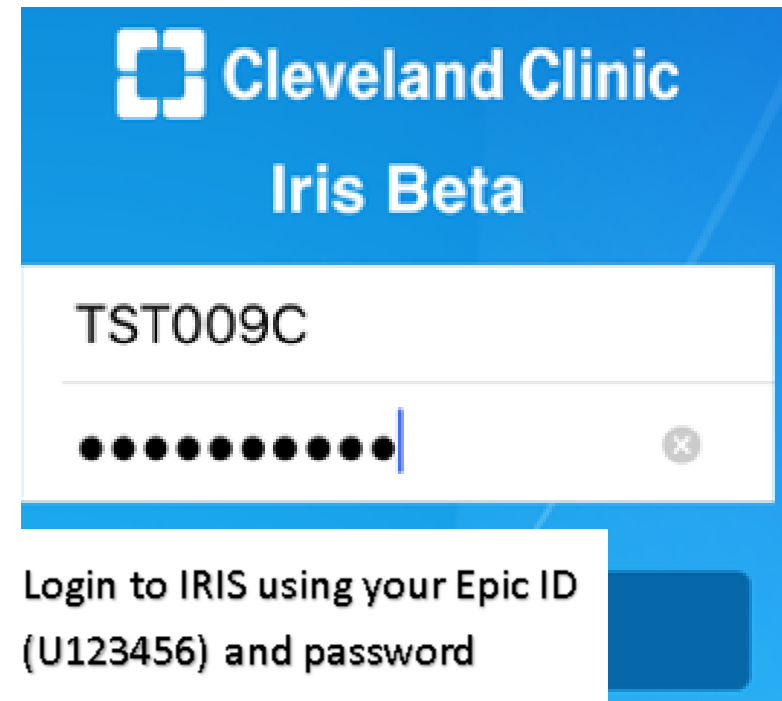
- Real time
- Location
- Behavior
- App Refreshes every minute

Can document in the past indefinitely but never into the future

iPhone needs to be connected to CCF Secure Wireless Network for IRIS to be able to be used



Tap the IRIS icon on the iPhone with your finger to open your login screen



Login to IRIS using your Epic ID (U123456) and password



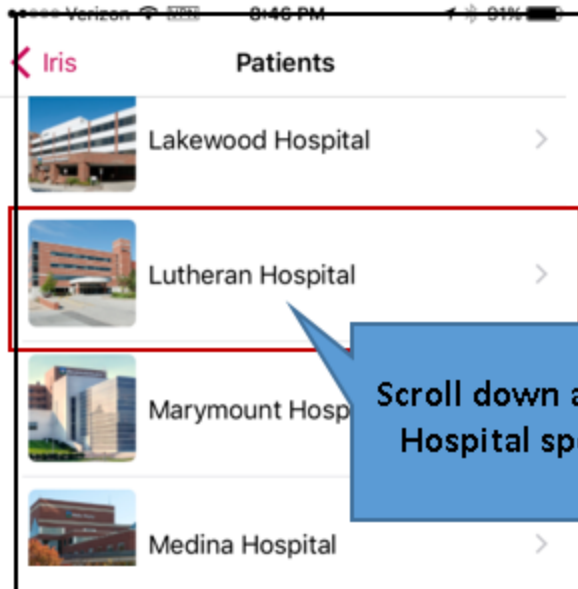
Initial Iris Screen

1. **Inpatients** – allows access to Inpatient Hospital lists where you will be selecting your unit and patients.
2. **Logout** - will log you out of the Iris Application completely. ALWAYS log out of Iris at the completion of your rounding time.

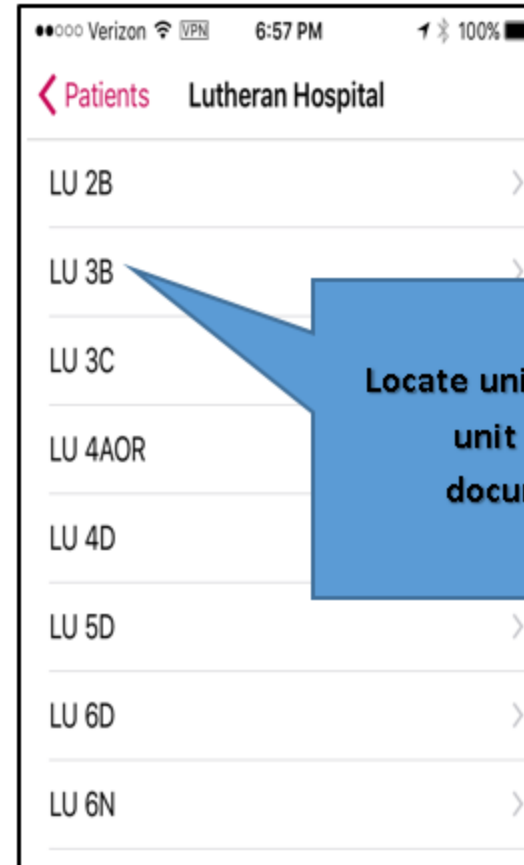
Selecting the Correct Unit

The screenshot displays the Epic Iris mobile application interface. At the top, a blue header bar contains the text "Inpatients" next to a person icon, with a circled "1" in the top left corner. Below this is a status bar showing "Verizon", "VPN", "1:39 PM", and "66%" battery. A navigation bar below the status bar shows a back arrow, "Iris", and "Patients". A second blue header bar contains "My Lists" and a circled "2". Below this are three sections: "My Lists" with a red arrow pointing to a yellow text box that reads "Use for keeping track of patients personally responsible for assessing - Set in EPIC each shift by user"; "My Shared Lists" with a red arrow pointing to a yellow text box that reads "Can be set by user and shared with multiple users per unit - Set in Epic by User, preferably Management"; and "Hospitals" with a yellow text box that reads "House all nursing system lists for each facility." Below the "Hospitals" section are two list items: "Cleveland Clinic Main Campus" and "Euclid Hospital", each with a small image and a right-pointing chevron. A third, partially visible item is at the bottom.

Hospital Nursing System Lists Available



Scroll down and tap on Hospital specific list



Locate unit and tap on the unit you will be documenting on

Completing BH Patient Safety Rounds Documentation

The image illustrates the workflow for completing Behavioral Health Patient Safety Rounds documentation through a mobile application. The process is numbered 1 through 6, with sub-steps 2-1 through 2-6.

- 1**: Initial patient list view.
- 2-1**: Selecting a patient (Konstantinov, Smily).
- 2-2**: Entering round details (Time of Round, Patient Location, Patient Status).
- 2-3**: Selecting Patient Location (Room Sleeping).
- 2-4**: Selecting Patient Status (Off Unit).
- 2-5**: Saving the entry.
- 2-6**: Final save confirmation.

The screenshots show the following data points:

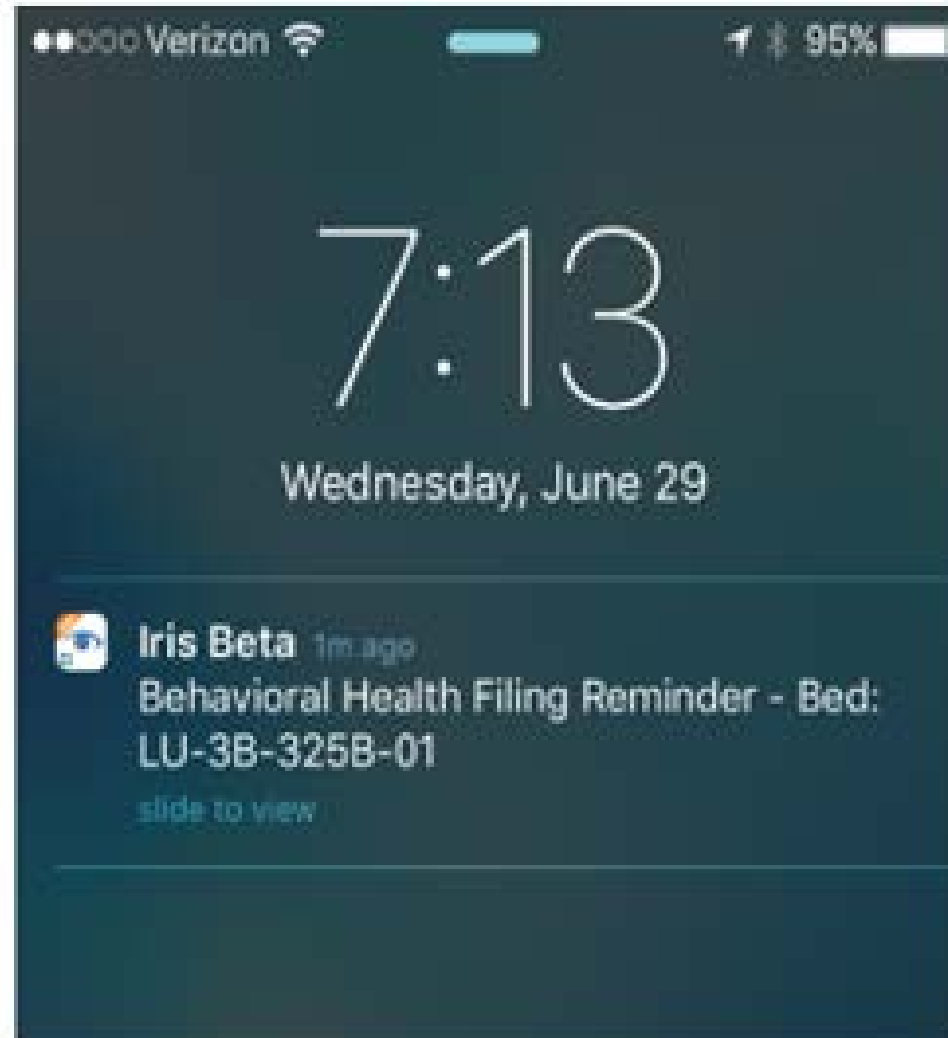
- Patients List:** Туров, Светлана (Age: 14, ACUTE STRESS REACTIO...), Миронов, Ирина (Age: 14, SELF HARM TO HERSELF), Глушко, Герман (Age: 15, DEPRESSION), Пестов, Артём (Age: 14, ADHD PDD R/D IED), Анисимов, Василий (Age: 17, ANXIETY DISORDER), Борисов, Раиса.
- Round Details:** Time of Round: 06/29/2016 22:07; Patient Location: Group Room; Patient Status: Off Unit.
- Location Selection:** Room Sleeping, Room Awake, Bathroom, Hallway, Day Area, Group Room, Seclusion Room, Phone Room, Dining Room, Nurses Station, Shower, Classroom.
- Status Selection:** Awake Calm, Awake Agitated, Asleep, Off Unit.
- Calendar:** Mon Jun 27: 8, Tue Jun 28: 9, Today: 10, Thu Jun 30: 11, Fri Jul 1: 12.
- Final Message:** All Items Required. Please be sure to enter values for all items. OK

Let's Round!

Timer Features

Туров, Светлана 📍 Age: 14 Location: FV-PPSY-4509-00, 840 days ACUTE STRESS REACTION	15+
Миронов, Ирина 📍 Age: 14 Location: FV-PPSY-4507-00, 0 days SELF HARM TO HERSELF	15+
Глушко, Герман 📍 Age: 15 Location: FV-PPSY-4510-00, 775 days DEPRESSION	14
Пестов, Артём 📍 Age: 14 Location: FV-PPSY-4504-00, 774 days ADHD PDD R/O IED	11
Анисимов, Василиса 📍 Age: 17 Location: FV-PPSY-4501-00, 841 days ANXIETY DISORDER	0
Борисов, Раиса 📍 Age: 20	

Notification Tools



How Data is viewed in EPIC

Worksheet * ICU Vitals * I/O * NPR Interventions Critical/Urgent Value... Vi			
Mode: Expanded View All			
	1518	7/5/16 1530	1549
Behavioral Health Rounding			
Time of Round	1518	1530	1549
Patient Location	GP	RA	RA
Patient Status	OU	AC	AC

Reports

Required Documentation

BH Rounding Shift Documentation



Overdue (1)

↳ BH Rounding

0230 - 0245



Completed (17)

↳ BH Rounding

0245 - 0300

0300 - 0315

0315 - 0330

0330 - 0345

0345 - 0400

0400 - 0415

0415 - 0430

0430 - 0445

0445 - 0500

0500 - 0515

0515 - 0530

0530 - 0545

0545 - 0600

0600 - 0615

0615 - 0630

0630 - 0645

0645 - 0700

Summary Report

	10/17/17 0844	10/17/17 0834
Behavioral Health Rounding		
Patient Location	Room Sleeping	Room Sleeping

My List Column

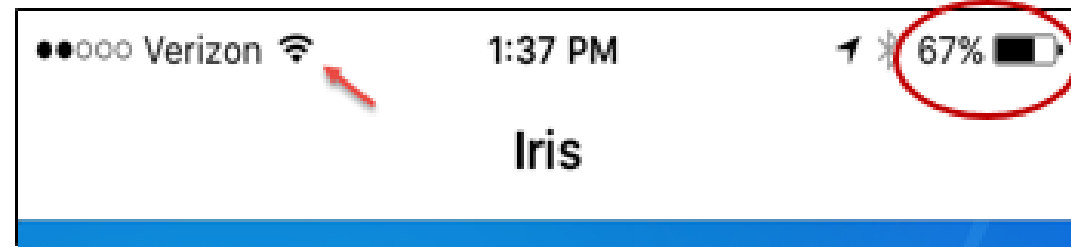
BH Rounding (min) ▲
Hallway (15m ago)
Day Area (13m ago)
Room Sleeping (13m a...)
Room Sleeping (12m a...)
Room Awake (2m ago)
Group Room (2m ago)

Communication(s):

- Leadership
- NOM (train for backup in code violets)
- Information Technology
- Behavioral Health inpatient units
- Project team planning and status calls

Reminders to Staff

iPhone needs to be connected to a CCF Secure Wireless Network for Iris to be able to be used.



Check the battery charge % on the iPhone, if <25%, plug it in to be charged, and use another iPhone.

Downtime Process

- Utilize current paper form followed by newly developed form once approved and available
- Add paper form to the DT form list to print on demand
- Forms will be changed to Individual patients so that they will be scanned into Epic chart and no longer need to be stored.

Go Live!

- 2 iPhone 5's were given to each Marymount floor
 - One to be used at a time
 - The second readily charged and available
 - Nursing Informatics and the ECSC teams supported each floor



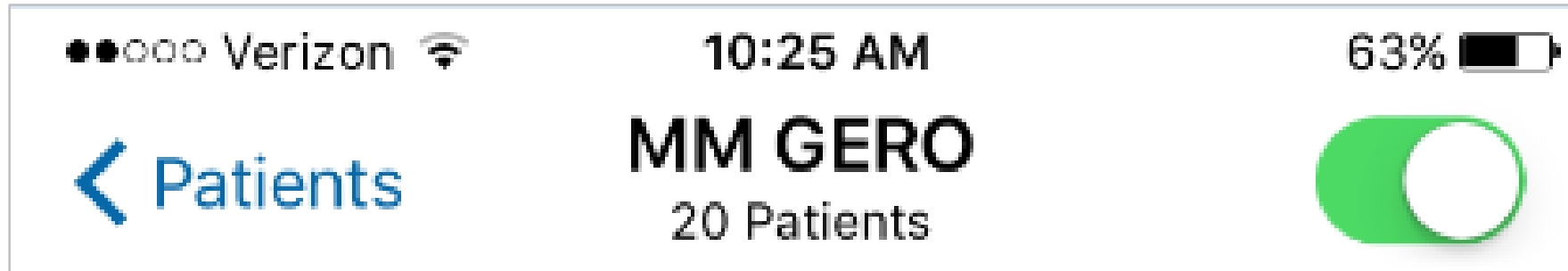
**“Tech support says the problem is located
somewhere between the keyboard and my chair.”**

Issues

- Not everyone has touched a touch screen
- Stylus Vs Finger tips
- Multitasking had been eliminated
- Gero is a 28 bed unit-largest unit to go live on this project
- Loss of Wi-Fi connection
- Admissions were missed until admitted or needed to be on paper
- Seclusion was not always 1:1
- Off unit went overdue-visual they did not need
- Yellow at 8 minutes causing anxiety

Quick Win Solutions

- User able to change font to improve “touch” abilities



Quick Wins (continued)

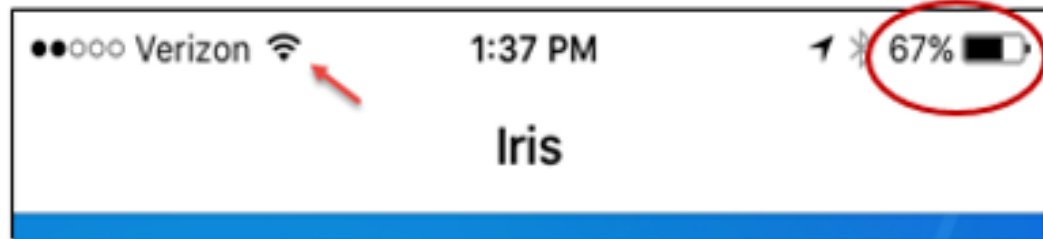
Documenting Safety Rounds from the Interventions Flowsheet

- Geography of Gero unit much larger
- Patient care included meal sharing in the Day area

Caregivers are able to assist with documentation of safety rounds by entering the checks on the Interventions Flowsheet

Technology 101-Repeated

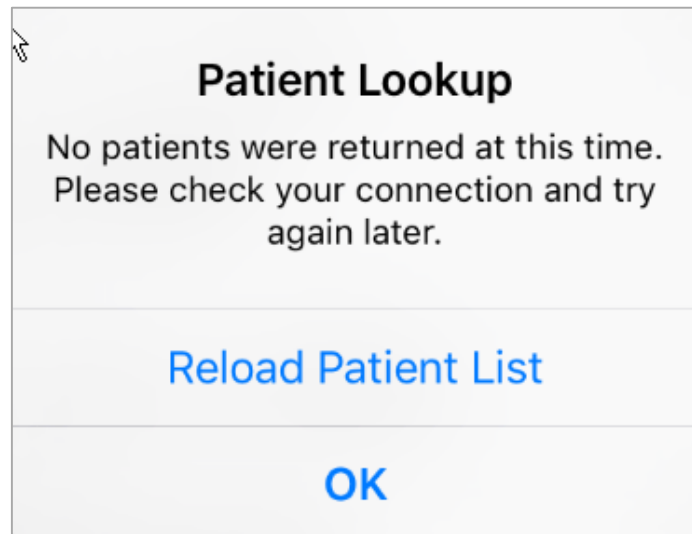
iPhone needs to be connected to a CCF Secure Wireless Network for Iris to be able to be used.



Check the battery charge % on the iPhone, if <25%, plug it in to be charged, and use another iPhone.

Wi Fi Connection

- Quickly learned that the iPhone 5 did not have the capability to switch connections



- Upgraded to iPhone 6

The Best Feedback is from the Bedside

Behavioral Health Rounding

Time of Round
06/29/2016 22:07
No recent comment

Patient Location
Group Room
No recent comment

Patient Status
Off Unit
No recent comment

21:00 - 21:15

A filing is needed for this time-frame!

Initial Build

07/21/2016 (8)
MRN: 79850748
FV-TEST-08

Behavioral Health Rounding

Patient Location
Tap to Select
No recent comment

30 characters remaining for comment

Save

Revised

Special Circumstances

- 1:1 Does not need Q15minute rounding
- Off unit does not require rounding
- Moved to Bottom of list to be available






Patient Name	Age	Bed	Attending Prov	Diagnosis	Value
Бородаенко, Камилла	10	FV-PPSY-4504-00, 1 Day	SIMON, B	PSYCOSIS; NOS	0
Беляков, Марк	8	FV-PPSY-4505-00, 3 Days	MENEFEЕ, E	ADJUSTMENT DISORDER	0
Савин, Тимофей	14	FV-PPSY-4503-00, 2 Days	SIMON, B	MAJOR DEPRESSION	14
Дзюбенко, Денис	9	FV-PPSY-4506-00, 2 Days	SIMON, B	MDD	10

Optimizations

- Use of “Seclusion Room” option, will not suspend the patient and will keep the patient on the timer sequence for safety rounds to be completed.
- Admissions will appear at the bottom of the patient list.
- The current time automatically populates when the “save” option is selected. (No past or future documentation is available in Iris).
- A late entry is entered in Epic on the flowsheet and a comment can be added using the paper icon.
- One handed documentation possible with Iphone 6 vs Plus

Timer Changes

- Admit-First round = **Lightblue**
- 15+ min = **Red**
- 9-14 min = **Yellow**
- 0-8 min = **Green**
- 12 min = device buzzes with a warning that the fifteen minute time is approaching
- 1:1 patients or off unit = **Dark Blue**

ZZCETEST,DATA 👤 Age: 71 Bed: FV-TEST-08, 19 Days Attending Prov: BURKEY, B	
ZZZFVTEST,OLIVER TEST 👤 Age: 8 Bed: FV-TEST-04, 719 Days Attending Prov: TEST MD, I	
ZZZFVSTORK,STELLA 👤 Age: 21 Bed: FV-TEST-09, 719 Days Attending Prov: AMB, D	
ZZZFVSTORK,BG-STELLA 👤 Age: 4 Bed: FV-TEST-10, 714 Days Attending Prov: TEST MD, I	
ZZZFY,IP CHRIS 👤 Age: 37 Bed: FV-TEST-01, 719 Days Attending Prov: TESTFV, M	

Clinical Impacts

Behavioral Health safety rounds documentation 2017 Year-to-date		
Hospital	Rounds Documented	Time to round on all patients
A	652,894	14 min 6 sec
B	51,863	13 min 7 sec
C	572,769	12 min 8 sec
D	138,766	12 min 0 sec

Mobile Application

- One handed
- Face forward
- Able to interact with patient
- Quick data entry
- Automated prioritization



Time and cost savings

- Standardized documentation of the location field making the application user friendly and interactive
- Less paper forms to manage and store
- Prioritization of the rounding sequence is visualized to easily determine which patient to round on next

Clinical Impacts

- Enhanced patient and caregiver safety by promoting a process that allows the caregiver to have heightened awareness of the environment and visualization of the patient
- Increased efficiency of the rounding process and interaction with the patient
- Patient information is legible, filed in real time, and accessible within the EMR and through reports
- Standardization of the rounding process within the Behavioral Health units throughout the enterprise

Caregiver Engagement / Satisfaction

- Electronic rounding made the unit a safer place
- Increased accuracy
- Quicker
- Small and handy
- Opportunity to stay on top of the process
- Convenient
- Easy to track
- Accessible
- More efficient

Recommendations

- Continue to measure and disseminate the value of using automated rounding solutions
- Potential for use for rounding in other specialties
- Expand the ability for use of the mobile device for further documentation
- Partner with other hospital systems to promote best practices during Behavioral Health patient safety rounds.

Extreme Thank you and Acknowledgments!!!

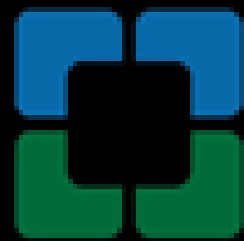
Emerging Clinical Systems Solutions

- Daniel Spencer BFA, Senior Software Developer
- Stephanie Lin RN, Clinical Analyst
- Suzanne Fink, MSN, RN

Nursing Informatics Team

Behavioral Health Affinity Group

Behavioral Health Caregiver Teams at Euclid, Fairview, Lutheran and Marymount Hospitals



Cleveland Clinic

Every life deserves world class care.