

Management of Safety and Behavioral Issues in Patients Requiring Increased Supervision

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B R A I N T R E E
REHABILITATION HOSPITAL

The Problems

- Disagreements among well-intended staff as to how to best manage patients on 1:1
- Lack of structured, consistent approach, some unilateral decision-making by individual disciplines and shifts
- Increased staffing demands places drain on Nursing resources
- Consequently, delays in accepting new patients requiring 1:1

The Goals

- Improve management of patients who require extra supervision for safety (1:1 and 30-min checks)
- Increase collaborative decision-making among staff and consistency in management utilizing objective data in an ongoing process
- Improve patient flow by reducing unnecessary delays in advancing patients off 1:1

Neurobehavioral Team

- Neurologist – Program Medical Director
- Neuropsychologist – Behavioral Program Director
- Behavioral Specialists
- Patient Monitors
- Nursing
- Physical Therapy, Occupational Therapy, Speech and Language Pathology
- Therapeutic Recreation Therapy
- Case Management
- Psychology
- Patient
- Family

Outline

- Factors Influencing Safety
- Objective Measures of Safety Factors
- Categories of Safety Interventions
- Forum for Decision-Making
- Neurobehavioral Program Outcomes

Factors Influencing Safety

– Physical Status

- Balance
- Vision and other perceptual functions
- Orthopedic Status
- Medical Equipment
- Bed entrapment

– Cognitive/Behavioral Status

- Cognition
- Impulsivity
- Insight
- Restlessness/Wandering/Elopement risk
- Suicide risk

Measures of Safety Factors

– Multiple Objective Measures

- Medical, Physical and Neuropsychological Status

– Tools Utilized to document measures:

- Patient Data Form
- Observation Forms
- Medication Tracking Record

Objective Measures

- Berg Balance: Fall risk
- GOAT Score: Orientation and Amnesia
- JFK Score: Patients in vegetative or minimally conscious state
- Awareness/Insight Scale: Simple rating scale devised
- Modified Morse Scale: Fall risk

Patient Data Form																																
Derived from medical record and team discussion																																
Days of the Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Berg Balance																																
JFK																																
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Observation Summary Form
Derived from 1:1 Observation sheets

	Sunday				Monday				Tuesday				Wednesday				Thursday				Friday			
	N	D	E	F	N	D	E	F	N	D	E	F	N	D	E	F	N	D	E	F	N	D	E	F
Restless																								
Uncooperative																								
Worries to leave unit																								
Verbal aggression																								
Putting off tubes																								
Self-harmful																								
Hitting/Slapping																								
Running																								
Swearing																								
Spitting																								
Scramming/Grabbing																								
Blaming																								
Starvation																								
Resisting																								
Sleep:																								
Behavior Times:																								
Notes:																								

- ### Categories of Safety Interventions
- **Monitoring Interventions**
 - Sensor alarms
 - Secure Care
 - 1:1 monitoring
 - not leaving patient alone in W/C or room
 - **Therapeutic Interventions**
 - Medication management
 - Behavioral strategies
 - Various daily schedules
 - Patient/family education
 - **Physical Care Interventions**
 - Assistive devices
 - Positioning devices
 - Various environmental modifications

- ### Forum for Decision-Making: Interdisciplinary Behavioral Rounds
- Goals**
- To create and/or modify Safety Interventions/Plan
 - To evaluate effectiveness of current safety interventions/plan
 - To identify current obstacles/concerns for an effective safety plan
 - To evaluate appropriate level of supervision

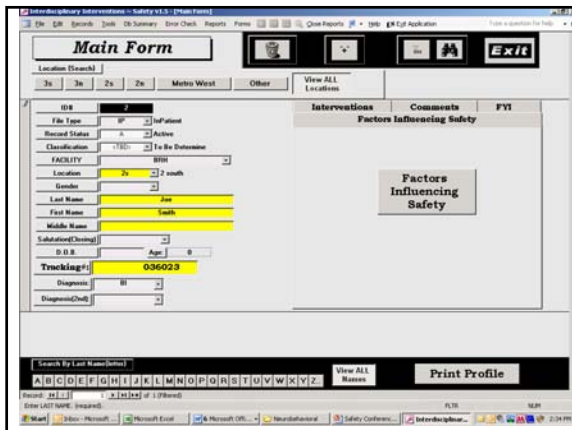
Forum for Decision-Making: Interdisciplinary Behavioral Rounds

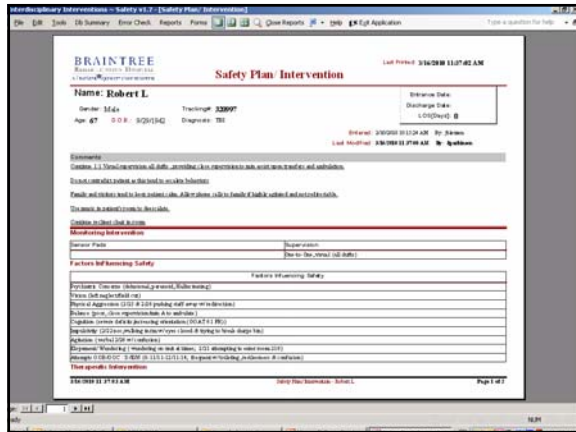
- **Minimum Participants:**

- Neuropsychology/Psychology
- One Primary Therapist (PT/OT/SP)
- One Therapy Lead Clinician
- Charge Nurse
- Nursing Leadership
- Behavior Specialist
- Neurology (1X/wk)

Interdisciplinary Behavioral Rounds

- Neuropsychology facilitates the rounds
- Behavioral Specialist compiles the data for interdisciplinary clinical review
- Factors Influencing Safety, Safety Interventions, and clinical rationale are all captured real time on the Neurobehavioral computer database
- A printout from database is used to communicate the safety plan to all disciplines over all three shifts. (real time)





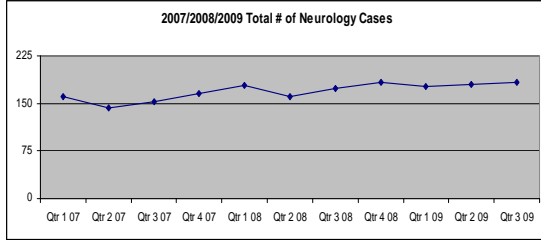
Neurobehavioral Metrics

- Number of Patients on 1:1 supervision per admission
- Number of 1:1 Supervision Episodes
- Patient Monitor Ratio
 - total number of episodes / total number of patients on 1:1

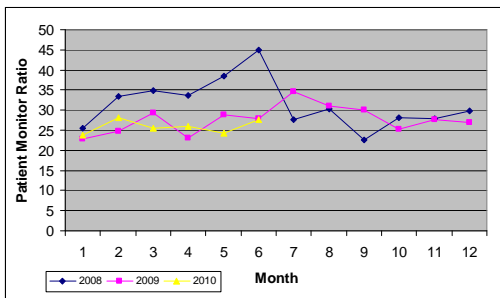
Neurobehavioral Metrics

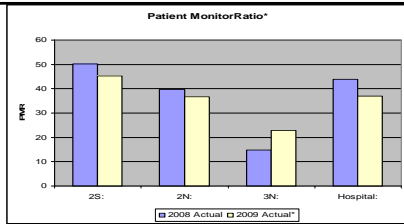
- Mean number of patients on 1:1 per day
- Mean number of days on 1:1
- Most 1:1 patients per day
- Most number of episodes per day
- Least 1:1 patients per day
- Least 1:1 episodes per day
- Number of patients admitted as 1:1
- Pre-Admission wait time (total days)
- Number of Patients who waited
- Number of outliers (>20 days per month)

Brain Injury, CVA and Movement Disorders Census



Patient Monitor Ratio 2008-2009-2010



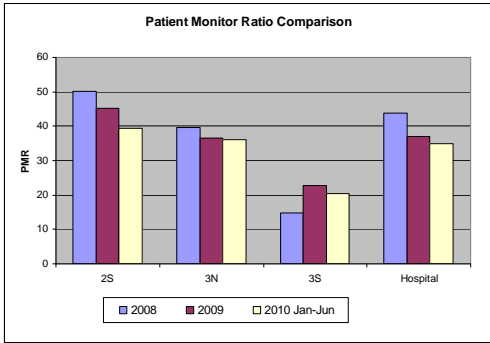


Yearly totals:
2008:

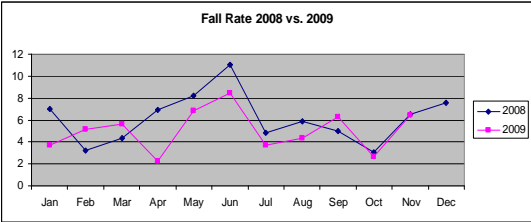
	Patients	Episodes	PMR
2S:	96	4821	50.21875
2N:	29	1147	39.55172
3N:	17	251	14.76471
Hospital:	142	6219	43.79577

Yearly totals:
2009:

	Patients	Episodes	PMR
2S:	84	3795	45.17857
2N:	65	2380	36.61538
3N:	47	1072	22.80851
Hospital:	196	7247	36.97449



Fall Rate 2008-2009



Summary of Neurobehavioral Program Initiative

- Emphasize the Interdisciplinary Approach
- Consensus on Conceptual Framework:
 - Factors Influencing Safety
 - Objective Data
 - Safety Interventions
 - Decision Making
- Training Modules for all levels of training (MD, Ph.D, RN, LPN, therapists, assistants, patient monitors)
- Performance Improvement Measures
