DE-ESCALATION TECHNIQUES IN BRAIN INJURY PATIENTS

OCHSNER NEUROSYMPOSIUM

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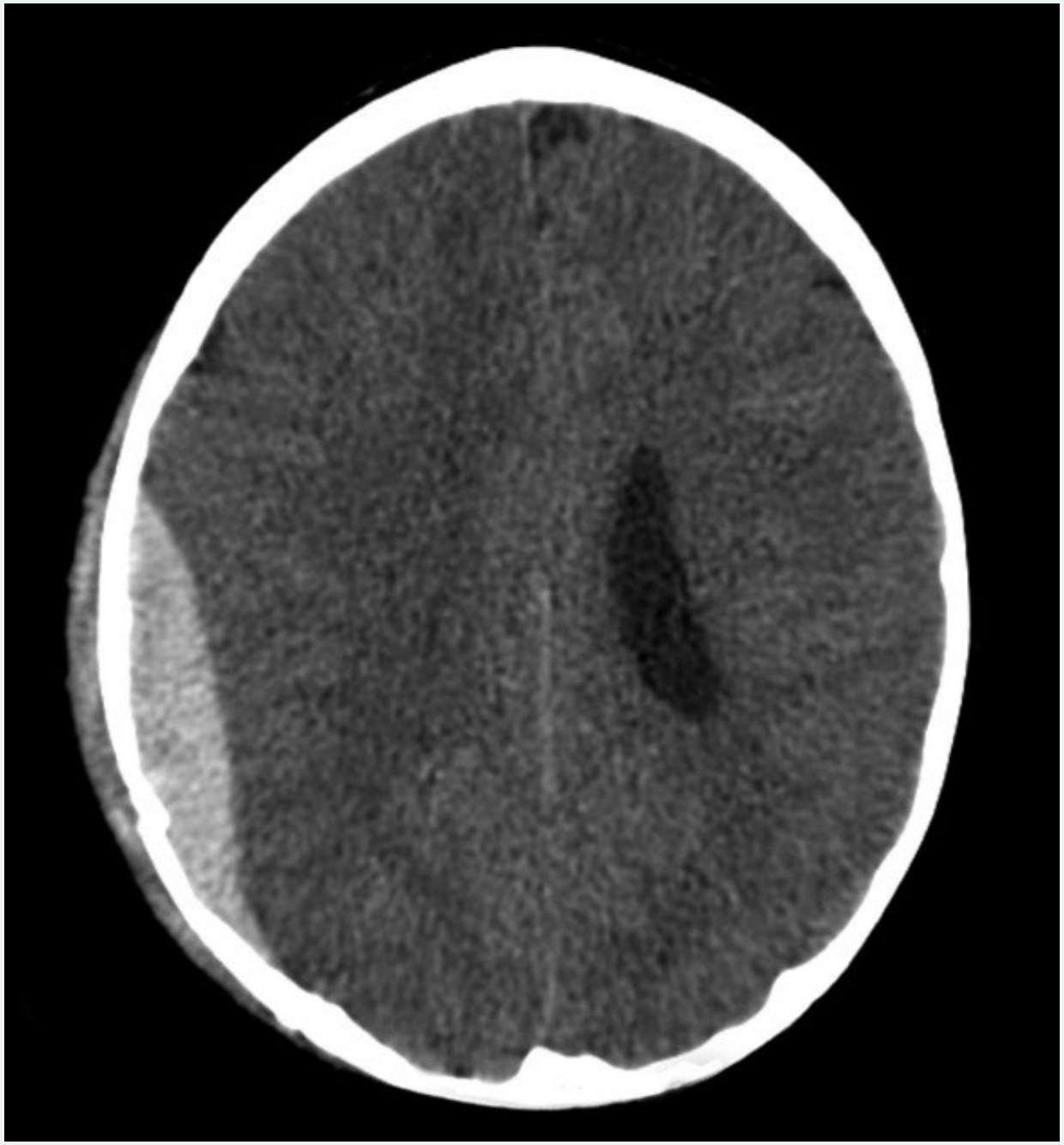
NO DISCLOSURES



DEFINITION

Traumatic Brain Injury

- Center for Disease Control
  - An injury to the head arising from blunt trauma, penetrating trauma, blast injury, or some external force which can include:
    - Decreased level of consciousness
    - Memory deficits
    - Skull fracture
    - An intracranial lesion
    - Cognitive or focal deficits
    - Death

EPIDEMIOLOGY OF TRAUMATIC BRAIN INJURY

2021

- 2.5-3 million TBI patients recorded
- 214,000 – 230,000 were hospitalized
- 69,000+ deaths
- 5.3 million people in the US living with disability after TBI

www.cdc.gov/traumaticbraininjury/data

MODERATE-TO-SEVERE TRAUMATIC BRAIN INJURY

Moderate to Severe TBI

- More often associated with structural findings and neuropathology
- (DAI, contusions, hematomas)
- Varies in terms of clinical improvement
- Functional independence to long-term disability

Table 2. Criteria used to classify TBI severity

	TBI SEVERITY		
Criteria	**Mild**	**Moderate**	**Severe**
Structural Imaging	Normal	Normal or abnormal	Normal or abnormal
Loss of consciousness	<30 minutes	30 minutes to 24 hours	>24 hours
Post traumatic amnesia	0–1 day	>1 and <7 days	>7 days
Glasgow Coma Scale score (best available score in 24 hours)	13–15	9–12	3–8
Abbreviated Injury Scale score: Head	1–2	3	4–6

Source: Brasure et al., 2012

DEFICITS AFTER BRAIN INJURY

Table 3. Health effects associated with TBI

Category	Description
Cognitive	Deficits in: *attention; learning and memory; executive functions like planning and decision-making; language and communication; reaction time; reasoning and judgment*
Behavioral/ Emotional	*Delusions; hallucinations; severe mood disturbance; sustained irrational behavior; agitation; aggression; confusion; impulsivity; social inappropriateness*
Motor	*Changes in muscle tone; paralysis; impaired coordination; changes in balance, or trouble walking*
Sensory	*Changes in vision and hearing; sensitivity to light*
Somatic signs and symptoms	*Headache; fatigue; sleep disturbance; dizziness; chronic pain*

Sources: Anstey et al., 2004; Asikainen, Kaste, and Sarna, 1999; Clinchot, Bogner, Mysiw, Fugate, and Corrigan, 1998; Dikmen, Machamer, Fann, and Temkin, 2010; Granacher, 2005; Katz, White, Alexander, and Klein, 2004; Meares et al., 2011; Orff, Ayalon, and Drummond, 2009; Riemann and Guskiewicz, 2000; Riggio and Wong, 2009; Rogers and Read, 2007; Schmidt, Register-Mihalik, Mihalik, Kerr, and Guskiewicz, 2012; Silver et al., 2011; Williams, Morris, Schache, and McCrory, 2009; Ziino and Ponsford, 2006; Nampiaparampi, 2008.

RANCHO LOS AMIGOS SCALE OF COGNITIVE FUNCTIONING FOR TRAUMATIC BRAIN INJURY

Named after the Rancho Los Amigos Nation Rehabilitation Center in Los Angeles County

Scale that measures the progression through cognitive and behavioral stages of recovery

Table 3 Ranchos Los Amigos scale

Level	Description
I	No response to visual, verbal, tactile, auditory, noxious stimuli
II	Generalized response
III	Localized response
IV	Confused-agitated
V	Confused-inappropriate
VI	Confused-appropriate
VII	Automatic-inappropriate
VIII	Purposeful and appropriate
IX	Purposeful and appropriate (standby assistance on request)
X	Purposeful and appropriate (modified independent)

RANCHOS LEVEL 4

- Overreact to stimuli: agitation/aggression
- Purposeful removal of lines (IV, catheters, PEG tubes)
- Can swing/thrash
- Verbally inappropriate
- Highly focused on basic needs
- Difficulty following directions

RANCHOS LEVEL 5

- Not oriented to person, place, or time
- Brief periods of sustained attention
- Follows simple commands
- Needs step-by-step instructions for basic tasks
- Overwhelmed by external stimuli
- Confabulate/Perseverates

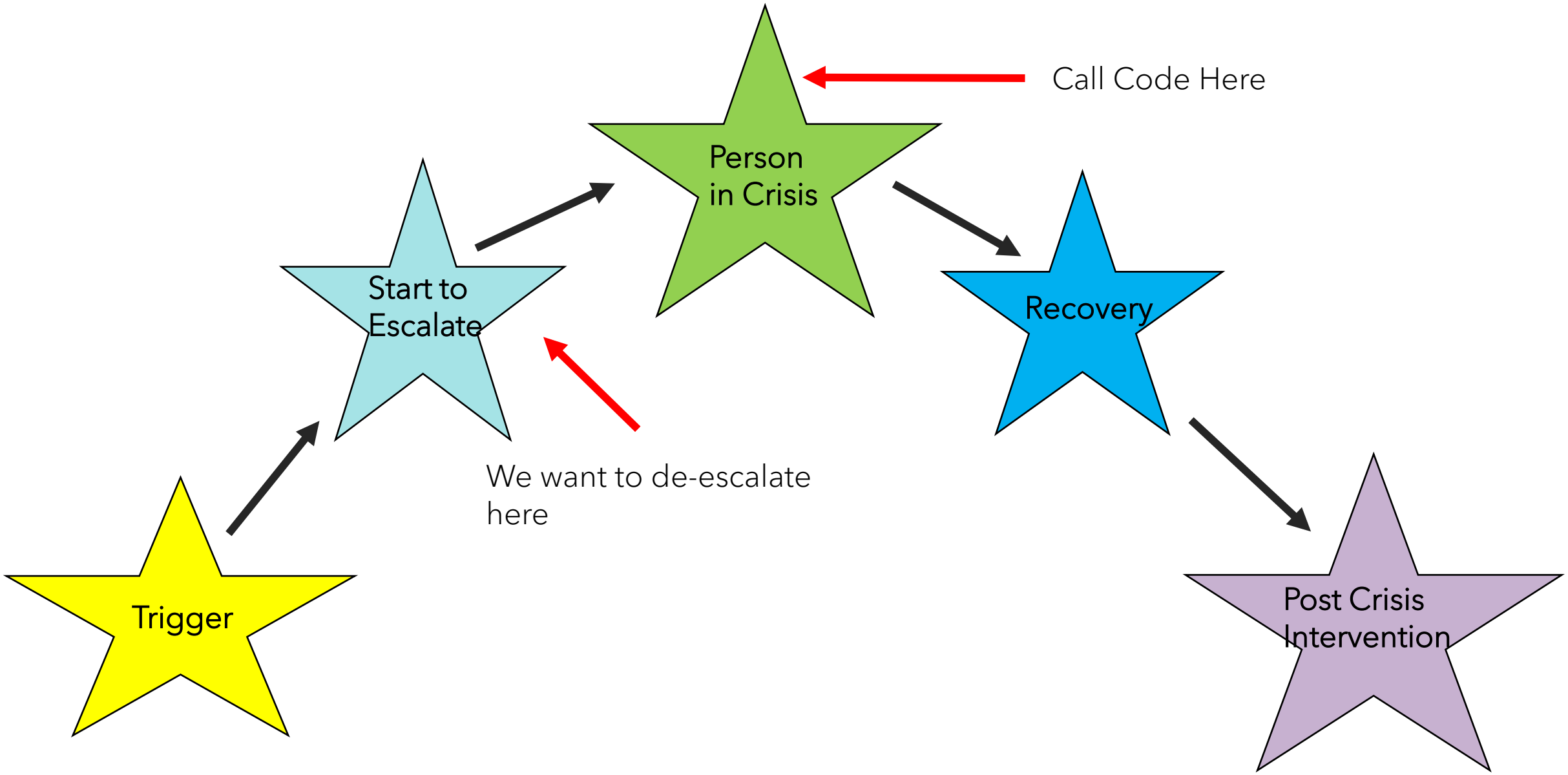
RANCHOS LEVEL 6

- More consistently oriented
- Follows a schedule with assistance/more structure tasks
- Improved sustained attention in non-distracting environments
- Can voice/express basic needs that need attention
- More aware of physical problems than mental/safety issues

INTERVENTIONS

- Medications
- Observation
  - Virtual Sitters
  - Personal/bedside sitters
- Space-limiting tools
  - Enclosure (Posey) beds
  - Locked doors/Wanderguards
- Code-white

WHAT TO DO WHEN IT ESCALATES?



WHAT CAN CAUSE AN ESCALATION EVENT?

WHAT SHOULD HAPPEN

Engager

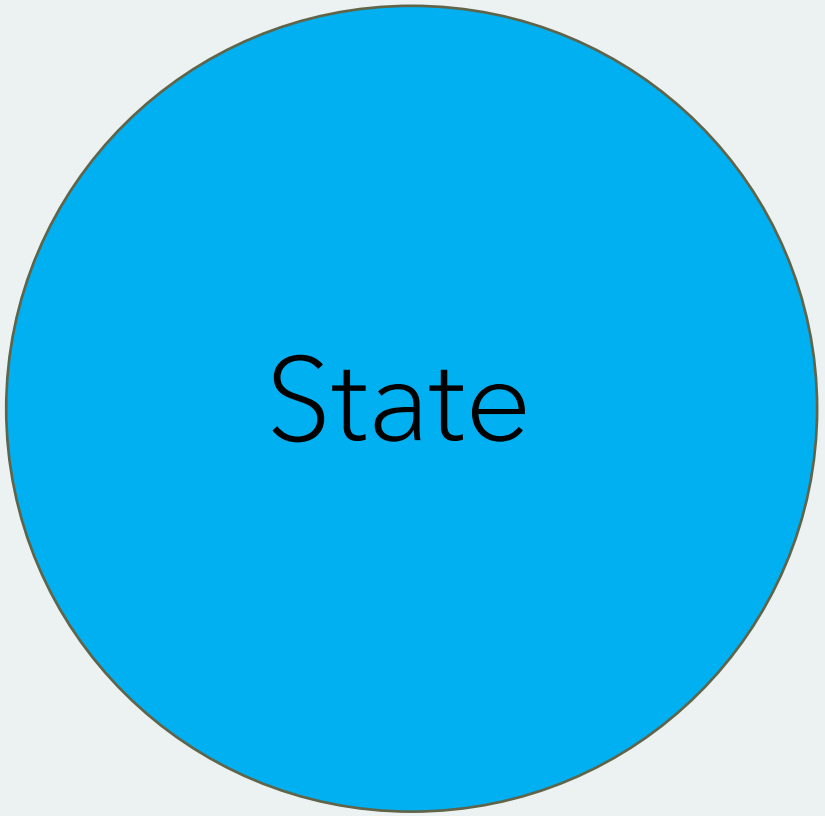
- Addresses the person in crisis
- Lead may sway the engager depending on the situation

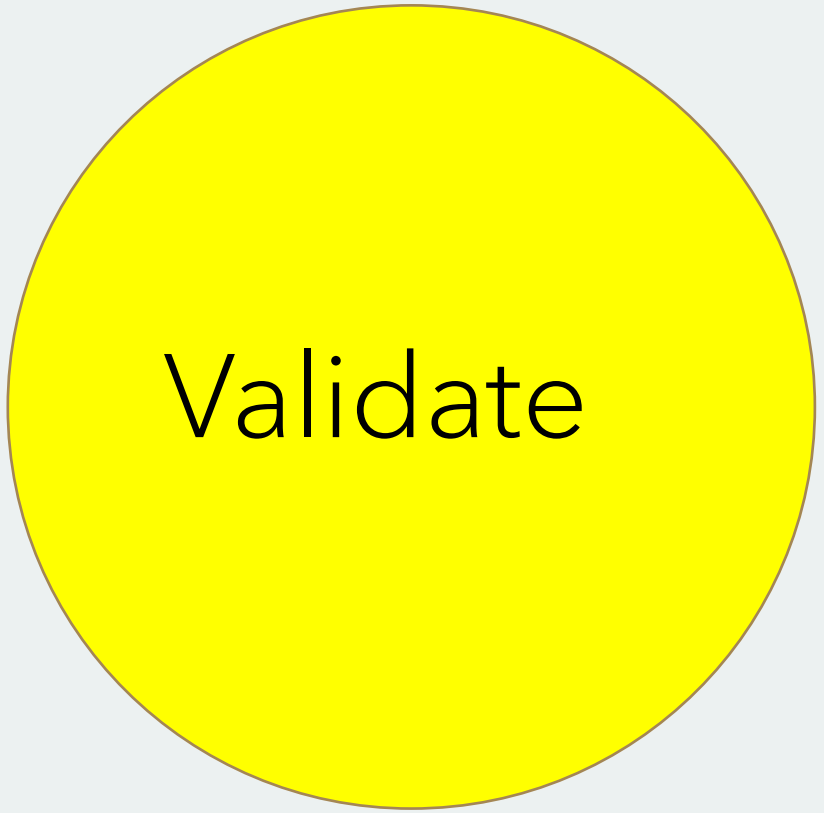
Lead

- First person to arrive after code is called
- Assesses:
  - Immediate safety and threats
  - In charge of directing staff

Support

- Remove additional people/equipment
- Follow lead's directions
- Do not crowd the person in crisis





DE-ESCALATION: OFTEN KNOWN AS A LOOP, IT IS IMPORTANT TO REMEMBER IN DE-ESCALATION THAT IS NOT ABOUT THE FACTS, BUT ABOUT THE PERSON'S EMOTIONS. LISTENING, MAKING EYE CONTACT, REPEATING WHAT THE ARE SAYING ARE JUST A FEW WAYS HELP THE PATIENT.

SCENARIOS: M AND D EXAMPLES

MW

Mr. W is a 30-year-old male with history of polysubstance use who was hospitalized after motorvehicle - pedestrian accident. He has a TBI with grade III diffuse axonal injury, bilateral CVAs, and L1-L4 fractures. After 6 weeks in the trauma hospital, he was admitted to our rehabilitation hospital for inpatient rehab.

He was admitted to us as a Rancho Los Amigos IV (4), demonstrating difficulty following commands, very restless/ wandering the halls, verbally aggressive/shouting .

During his two weeks, he required multiple interventions: including mood stabilizers/beta-blockers, enclosure bed, and personal bedside sitter.

MW

After 2 weeks of inpatient rehabilitation treatment, he has progressed to a Ranchos level 6.

He is now walking without an assistive device and is dressing and bathing himself independently. He is excited to discharge and even gives you a hug goodbye.

However, his grandfather is late picking him up. You notice between patients he starts to pace the hallway. Going up and down. He then starts shouting, which escalates to verbal threats toward the nursing staff and his grandparents. What do you do? What do you do if this patient grabs you?

THERAPY TREATMENT: MW

Therapy de-escalation strategies:

1. Identify Triggers: internal needs (always offered food and bathroom)
2. External Triggers: auditory processing, blocking a perseveration or him in the room, loud environments
3. What didn't trigger him: quiet environments, decreased verbal cuing/auditory processing (less words the better)., feeling like you were agreeing with him, meeting basic needs, food happy, letting him explore the hospital at his pace, good body language and change person out
4. Establish a rapport.

DS

DS is a 43 year old female who had recent treatment of of gastric bypass sleeve. She was admitted due to confusion, nausea, vomiting , decrease appetite and bilateral leg weakness. She was diagnosed with polyneuropathy (due to vitamin deficiency versus Guillian Barre). She was also treated for thiamine with suspected Wernicke's encephalopathy.

After 10-12 days on acute neurology services, she was admitted to Ochsner Rehabilitation Hospital. She was found to have problems with persistent disorientation, confusion, anxiety, emotional lability/crying, and neuropathic pain. Family has been present during her hospital stay and is very concerned about her condition.

DS

She was treated with SSRIs and carbamazepine for emotional lability and neuropathic pain.

However, she escalated during therapy. She suffers confusion and disorientation during transfers. She suffered knee buckling during fall and has screaming/yelling/verbal outbursts.

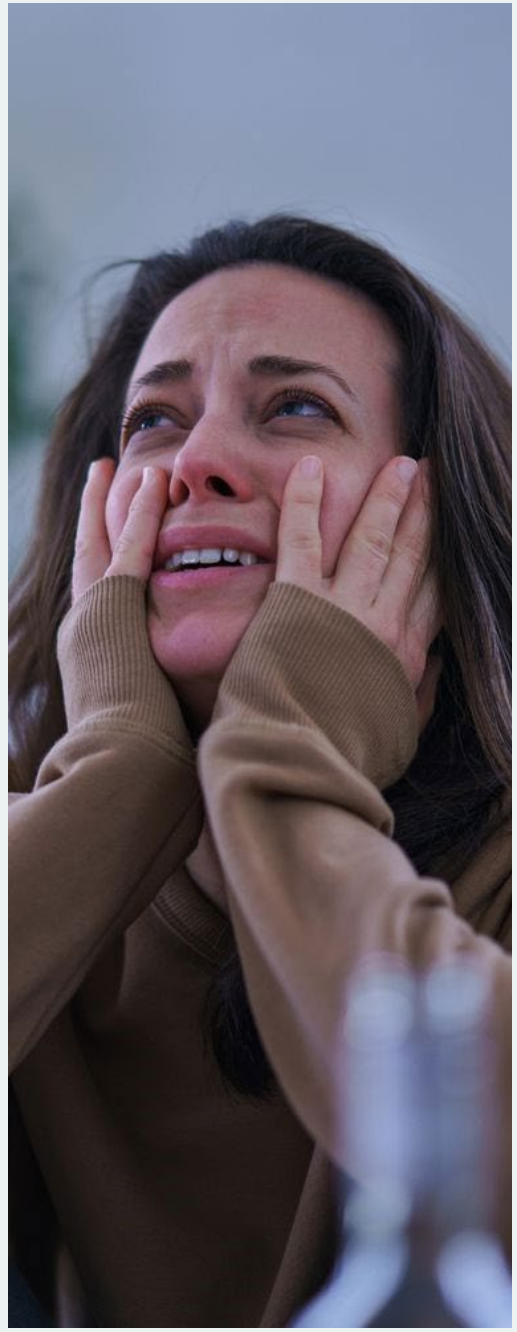
Code white and "Dr. Trip" called

How do you de-escalate in this scenario?

THERAPY TREATMENT DS

Therapy treatment strategies:

1. Establish rapport was key- a friendly face was key for her reaction.
2. Rest breaks and taking away the stressful trigger (Family)
3. Body language and mirroring the way you wanted her to react.
4. Limit verbal cuing (pt had significant auditory processing deficits)- reassurance and instructions prior to physically doing something
    - Communication was key for her. If she believed you were talking down to her or babying her, she would react.
    - Remember your loop: "state" "listen" "validate"



POST CRISIS EVENT FOLLOW-UP

DE-ESCALATION POST FOLLOW UP

- The patient will often feel remorse (post critical depression)
- There is a follow up form, and a team huddle is done. This huddle goes over:
  - What triggered patient
  - Behaviors observed
  - Things that could have been done differently
- It's equally as important to check on yourself and the staff.
  - If you don't feel comfortable with this population: it is okay.

THANK YOU!!!!!