Advancing Neuropsychiatric Care: Connecting Brain Injury Treatment to Better Outcomes

Session 3: : Psychotherapeutic Approaches, Psychosocial Education, and Family Support for Patients with Brain Injury

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Re-Introductions

Durga Roy, MD

Matthew Peters, MD

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Disclosure Summary

Full Disclosure Policy Affecting CME Activities

As a provider approved by the Accreditation Council for Continuing Medical Education (ACCME), Johns Hopkins University School of Medicine Office of Continuing Medical Education (OCME) requires attested and signed global disclosure of the existence of all financial interests or relationships with commercial interest from any individual in a position to control the content of a CME activity sponsored by OCME. The following relationships have been reported for this activity:

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Medications discussed are considered off label and not FDA approved for TBI

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Webinar Series Schedule

- **Session 1:** Introduction and Recognizing Behavioral, Emotional, and Cognitive Symptoms in Brain Injury
- **Session 2:** Pharmacotherapy for Behavioral, Emotional, and Cognitive symptoms in Brain Injury
- **Session 3: Psychotherapeutic Approaches, Psychosocial Education, and Family Support for Patients with Brain Injury**
- **Session 4:** Structuring Environments for Safe, Therapeutic Management of Brain Injuries and Seminar Series Recap and Wrap-up

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Objectives

- Recognize psychotherapeutic approaches used in brain injury
- Describe how psychosocial education is used to improve outcomes and patient acceptance following brain injury
- Identify approaches to support families of those with brain injury

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Roadmap of Today's Session

- Overview of Psychotherapeutic Interventions
- Overview of Rehabilitative Interventions
- Overview of Systemic Interventions
- Q&A
- **BREAK**
- Example Case discussion
- Real-time case discussion(s)
- Wrap-up

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Real-Time Case Discussions

- Following the break, Drs. Peters & Roy will present an example case discussion relevant to the presentation thus far
- As a participant, we encourage you to present an interesting case or a case you'd like advice or feedback on
- For this session, the case discussion will focus on symptom presentation and patient evaluation
- Important details when presenting:
  - The case must NOT contain identifying information
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  - Present the most relevant components of the case as they pertain to symptom presentation and patient evaluation – ideally 5 minutes or less
  - And most importantly, we can learn / teach from any case! If you are not sure if you should share, you SHOULD!

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From Session Two: Treatment Approach

- Neuropsychiatric + idiopathic psychiatric conditions co-occur
- Brain injury may impact pre-morbid mental health conditions
- Multimodality is necessary
- Pharmacotherapy is often NOT most important

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National Association of State Mental Health Program Directors

- Screen for lifetime exposure to brain injury
- Accommodate neurobehavioral deficits due to brain injury
- Use holistic approaches in order to address co-morbid condition
- Supplant improvement gained with other therapeutic supports

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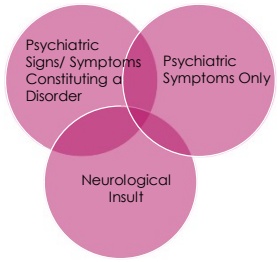
Recap: Clinical Syndrome Versus Symptoms



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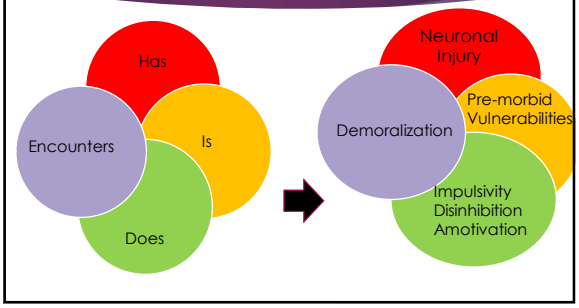
Holistic Framework to Assessment



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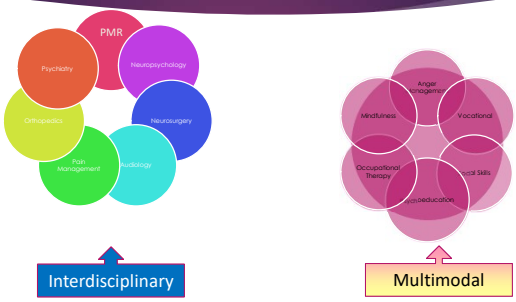
Neuropsychiatric Care in Brain Injury



Interdisciplinary

Multimodal

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Medications are not the only answer

Treatment of Neuropsychiatric Symptoms

Pharmacologic | Psychotherapeutic | Rehabilitative | Systemic

Integration of Modalities is Key

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Objectives

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Approaches to Effective Psychotherapy Brain Injury

- Use interpersonal and adaptive strategies
- Apply a holistic and rehabilitative mindset
- Tailor to deficits in attention, processing, memory, executive function
- **Customize the sessions according to ability of the patient**

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Psychotherapeutic Strategies

- Allow for the cognitive difficulties and fatigue
- Remain structured, clear and precise, talk slowly
- Allow patient to practice
- Encourage family encounters with other families

Wiart et. al 2016

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Specific Psychotherapies

- Cognitive-Behavioral Therapy
- Dialectical Behavioral Therapy
- Psychoanalytic therapies
- Sensory Therapies

Wiart et. al 2016

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Cognitive Behavioral Therapy

Aim: Replace negative thoughts with positive ones

- Target one or two elements (anger, coping) instead of syndrome
- Highest level of evidence for use in brain injury
- Most preferred type of psychotherapy in patients with brain injury

Fisher et al. 2024Wiart et. al 2016, Fann et al. 2017, Ashman et al. 2015, Waldron et al. 2013

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Psychoanalytical Psychotherapy

Aim: Resolution of intra-psychic conflicts following trauma

- Identify lack of awareness of disabilities (anognosia)
- Use environmental cues to ground recollections
- Short, frequent meetings to reduce cognitive load

Genz et al. 1985, DelaTorre et al. 2022, Wiart et. al 2016

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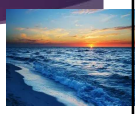
Dialectical Behavioral Therapy



Aim: Acquire skills to improve emotional dysregulation

- Role play emotionally challenging daily life situations
- Repetition of skills learned is key given cognitive limitations
- Incorporate multi-modal learning (videos, cards, diaries, visual aids)

Kuppelin et al. 2024

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Sensory Therapies

Aim: Improve arousal, awareness ,sensory integration

- Yoga and meditation (breathing)
- Tai Chi (body movements)
- Music therapy (hearing)
- Hypnosis (bodily sensations)
- Mindfulness (sights, sounds, thought)

Wiart et. al 2016

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Non-Pharmacologic Modalities

Psychotherapeutic	Rehabilitative	Systemic
☑		

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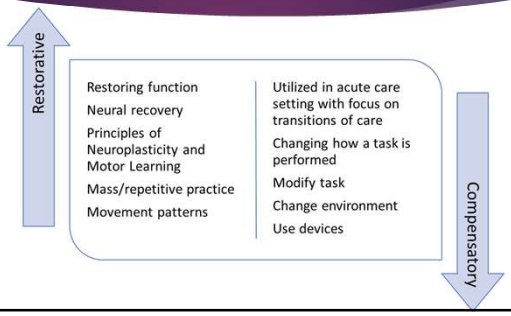
Rehabilitation Treatment Focus



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Approaches to Effective Rehabilitation

- Initiate treatment early
- Foster and guide the natural recovery processes
- Decrease the development of maladaptive patterns
- **Functional change is the goal of treatment**

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Specific Rehabilitation Approaches

- **Cognitive**
- **Psychosocial**
  - Vocational Training
  - Social Skills Training
  - Education Training
- **Physical and Functional**
  - Physical Therapy
  - Occupational Therapy
  - Speech Language Therapy

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Cognitive Rehabilitation

- Aim to improve functioning by reducing cognitive deficits
- Manipulates environment to facilitate cognitive function
- Therapeutic processes/activities should facilitate engagement
- Restorative and compensatory methods promote engagement

Wiart et. al 2016
Courtesy Kathleen Bechtold. PhD

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Cognitive Rehabilitation Models

Cognitive rehabilitation is a class of interventions that address "cause" (mechanism) of cognitive processing problem(s)

- **Compensation model** (aim: to use alternative methods for performing the same task to improve life functioning)
- **Restorative model** (aim: to augment cognitive functioning in-the-moment
- **Remediation model** (aim: to fix or correct the underlying neuropathology)

Courtesy Kathleen Bechtold, PhD

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Psychosocial Rehabilitation

- Aims to develop skills needed to reintegrate
- Social, emotional, intellectual and intellectual retraining
- Learn coping skills
- Develop resources to reduce future stressors

Wiart et. al 2016

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Psychosocial Rehabilitation

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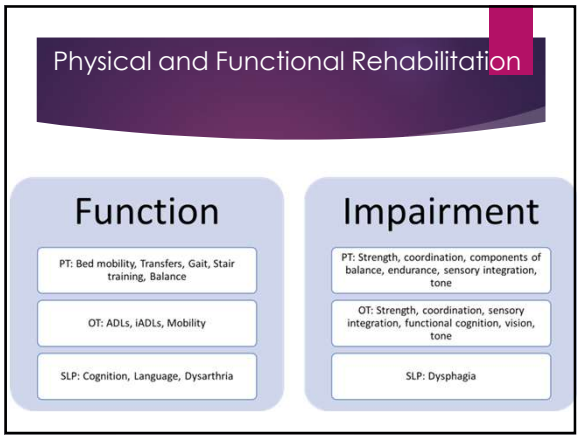
Physical and Functional Rehabilitation
Function
PT: Bed mobility, Transfers, Gait, Stair training, Balance
OT: ADLs, iADLs, Mobility
SLP: Cognition, Language, Dysarthria
Impairment
PT: Strength, coordination, components of balance, endurance, sensory integration, tone
OT: Strength, coordination, sensory integration, functional cognition, vision, tone
SLP: Dysphagia

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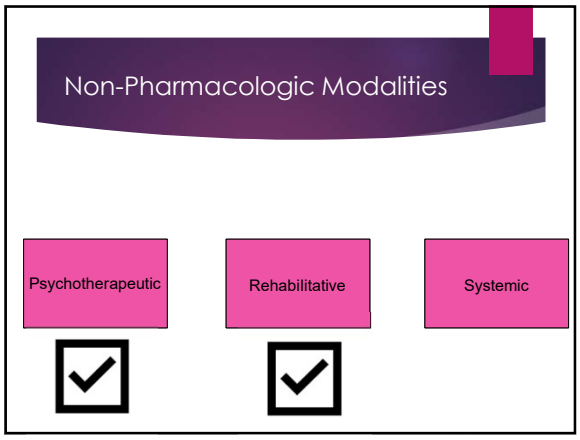
Non-Pharmacologic Modalities
Psychotherapeutic
Rehabilitative
Systemic

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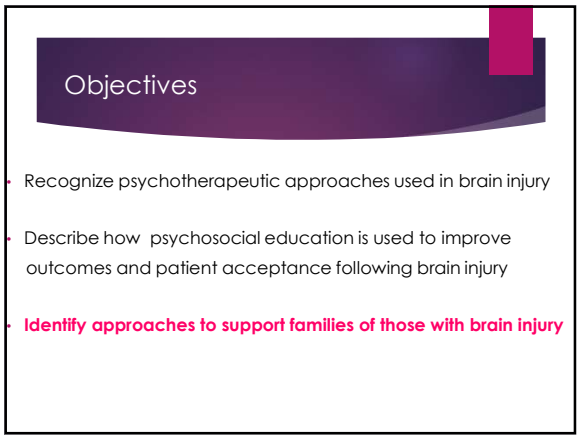
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Systemic Interventions

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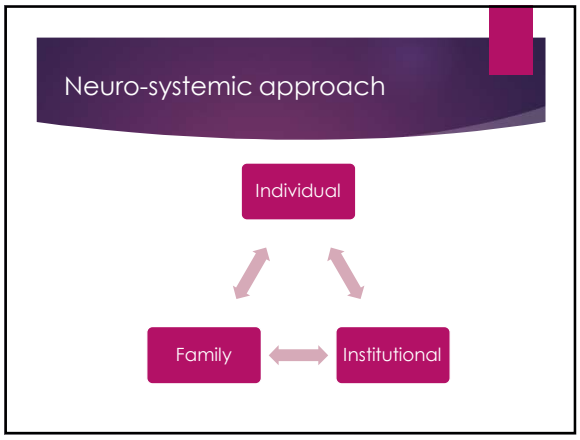
Neuro-systemic approach
Individual
Family
Institutional

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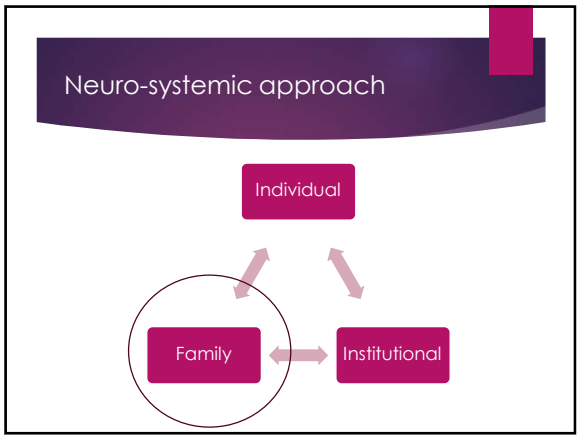
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Challenges Families Face

- **Emotional challenges:** Grief, anxiety, depression, anger, guilt
- **Role shifts:** Family become caregivers, advocates, coordinators
- **Disrupted routines:** Roles change, cause tension and stress
- **Relationship strain:** Changes affect partners and children

Whitten et al. 2025

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Systemic Family Therapies

Aim: to facilitate a family reconstruction

- Directive- based interventions
- Aimed at family structure and institutional interactions
- Combines communication theory + ethnology

Wiart et. Al 2012

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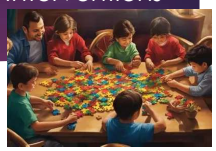
Family Problem Solving Interventions (F-PST)



- Evidence-based intervention for children with TBI
- Telehealth therapist guided
  - In person
  - Self-guided online
- All have been found to be efficacious

Courtesy Beth Slomine, PhD

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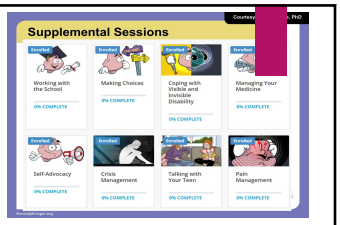
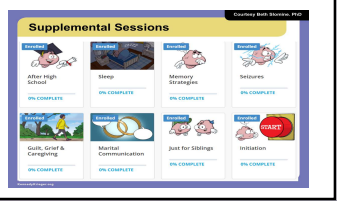
F-PST Content – 8 core sessions

- Orientation
- Positive attitude/statements
- 5 steps of problem solving with family aim identified
- Effects of brain injury on attention, memory, EF
- Emotional and behavioral control
- Anger management and "I messages"
- Communication and listening
- Social problems





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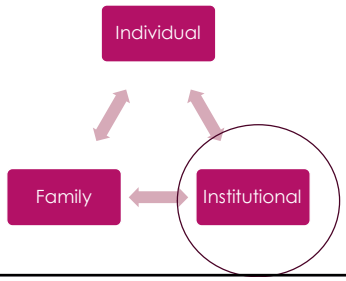
Neuro-systemic approach



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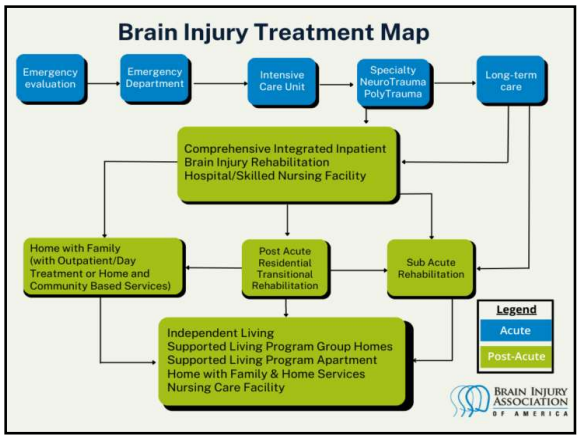

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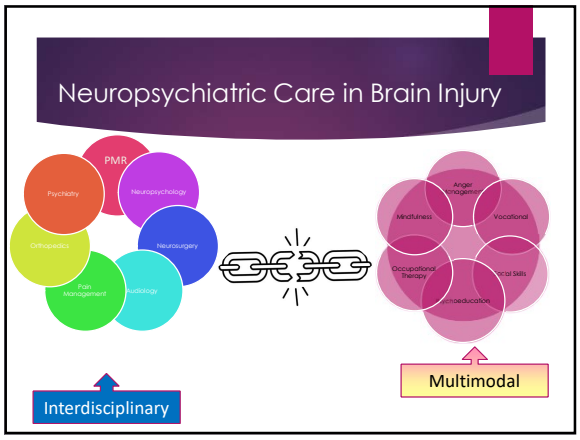
Neuropsychiatric Care in Brain Injury
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Neurosurgery
Orthopedics
Pain Management
Audiology
Anger Management
Mindfulness
Vocational
Occupational Therapy
Social Skills
Psychoeducation
Multimodal
Interdisciplinary

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Neuropsychiatric Care in Brain Injury
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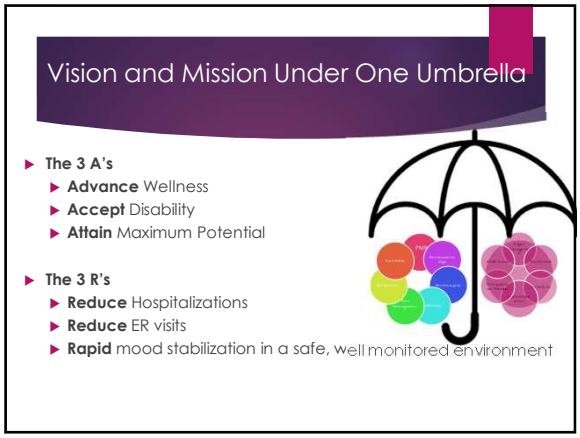
Vision and Mission Under One Umbrella
The 3 A's
Advance Wellness
Accept Disability
Attain Maximum Potential
The 3 R's
Reduce Hospitalizations
Reduce ER visits
Rapid mood stabilization in a safe, well monitored environment

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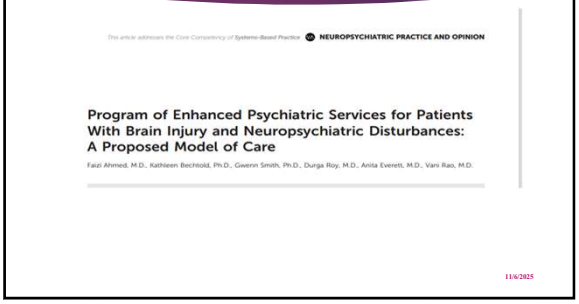
Vision and Mission Under One Umbrella



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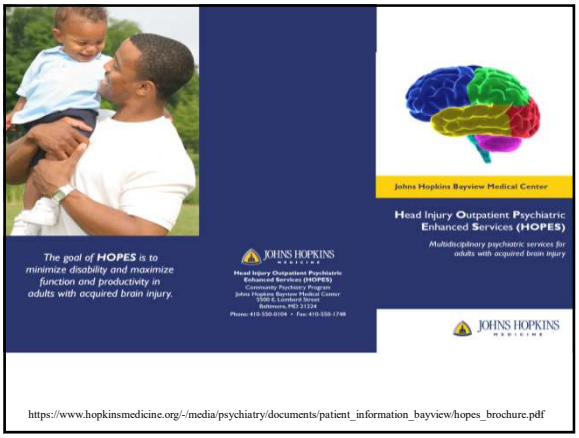

https://www.hopkinsmedicine.org/-/media/psychiatry/documents/patient_information_bayview/hopes_brochure.pdf

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Non-Pharmacologic Modalities

- Psychotherapeutic ☑
- Rehabilitative ☑
- Systemic ☑

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Summary

- Medications are not always the answer
- Modalities work best when they are integrated as a team
- Psychotherapy, rehab and systemic interventions require teams
- Tailor modalities to the ability of the patient at the time

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BREAK

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Real-Time Case Discussions

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