



## Objective: To characterize clinician and parent discussions of brain imaging for critically ill infants

### Background

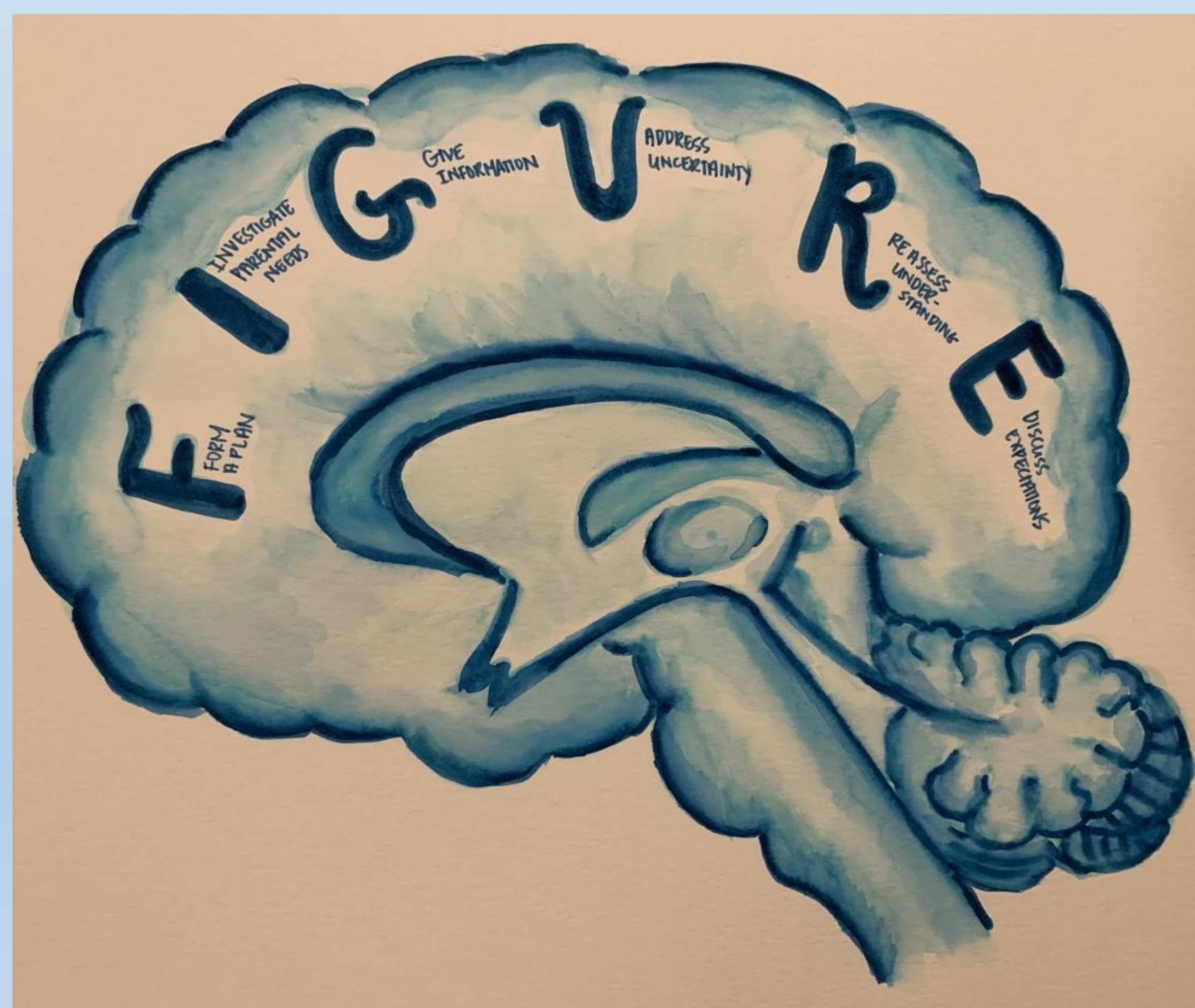
- Critically ill infants often require brain imaging to define the need for interventions and to estimate prognosis
- Little is known about how clinicians discuss brain imaging with families.

### Methods

- Study participants included infants with a neurologic condition, their parent(s), and their clinician(s)
- Family conferences were audio-recorded as they occurred
- Audio recordings were transcribed, de-identified, and analyzed using a conventional content analysis approach

### Current Progress

- Developed and refined codebook (Table 1)
- n= 66 meetings were recorded, n=36 meetings with imaging discussion (36/66, 54.5%)
- Content analysis is ongoing
- Contributed to a chapter review regarding effective strategies for communication of brain imaging finding (Figure 1).



Painting Courtesy Dr. Sarah Bernstein

**Figure 1. Guidelines for effective physician-family communication:**  
*Form a plan, Investigate parental needs, Give Information, address Uncertainty, Reassess understanding, discuss Expectations*

Table 1. Codebook

Node	Definition
<b>1. Discussion Initiator</b> <ul style="list-style-type: none"> <li>Clinician</li> <li>Parent/Family</li> </ul>	Party who initiates brain imaging discussion for the first time in the transcript
<b>2. Visual Aid</b> <ul style="list-style-type: none"> <li>Reviewed</li> <li>Constructed</li> <li>Absent</li> </ul>	Use of a visual aid during brain imaging discussion, which may be: <b>Reviewed</b> by means of the physical report or scan present for discussion <b>Constructed</b> in-the-moment via a visual representation, diagram, or sketch created by the speaker Alternatively, there may be no visual aid present during the discussion ( <b>Absent</b> )
<b>3. Modality</b> <ul style="list-style-type: none"> <li>Strengths</li> <li>Limitations</li> </ul>	<b>Strengths</b> refers to the purpose and strengths of a particular brain imaging modality and why it is useful to clinicians <b>Limitations</b> refers to the limitations of the brain imaging modality, including what cannot be learned from the image; uncertainty
<b>4. Context</b> <ul style="list-style-type: none"> <li>Provide Relevant Background</li> <li>Orientation to Scan</li> <li>Asking Information Preferences or Permission</li> <li>Assess Baseline Knowledge</li> <li>Check Understanding</li> </ul>	<b>Relevant Background</b> provides critical anatomical and functional information that is requisite to understanding an imminent brain image discussion. This could include a description of normal brain or body structure and function or features of a condition or abnormality. A clinician may provide a brief <b>orientation to the scan</b> , outlining features of a present image or specific visuals. <b>Asking information preferences, or permission</b> to show a particular brain scan serves to initiate a brain imaging discussion. <b>Assess baseline understanding</b> of previous knowledge related to the findings of a scan. Includes previous conversations with other clinicians. <b>Check understanding</b> after an imaging discussion or provides an opportunity to ask follow-up questions.
<b>5. Finding</b> <ul style="list-style-type: none"> <li>Normal</li> <li>Abnormal</li> <li>Unknown Significance</li> </ul>	Used to categorize how clinicians define the nature of the brain image.
<b>6. Result Implication</b> <ul style="list-style-type: none"> <li>Relationship to Future Outcomes</li> <li>Relationship to Current Presentation</li> </ul>	The clinician may explain how the findings discovered from the brain image may <b>translate into future outcomes</b> via observable behaviors, and how these may change throughout development. The clinician may state how the brain scan explains <b>current behaviors or diagnosis</b> .