21st International Meeting on Simulation in Healthcare
Research Study Development and Presentation Program

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The Big Bang:

Developing a Subarachnoid Hemorrhage Simulation for Preclinical Medical Students

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Educational Opportunity

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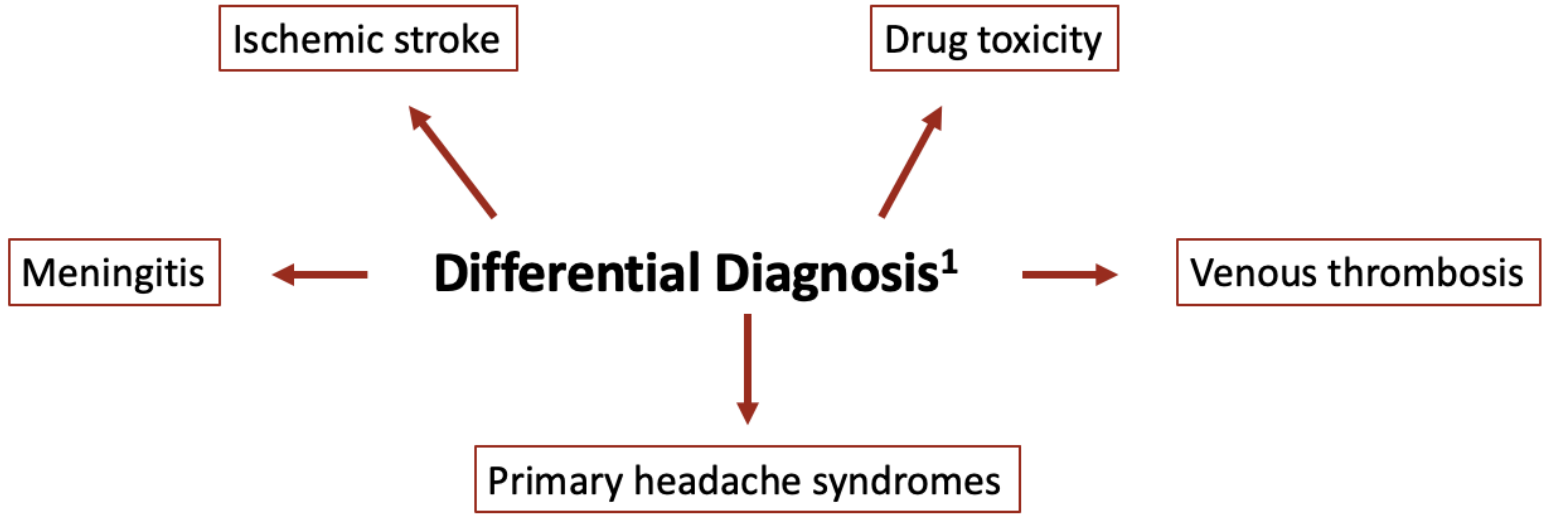
Subarachnoid Hemorrhage (SAH) is a high-risk condition and an ideal candidate for virtual simulation teaching.[2,3,6-9]

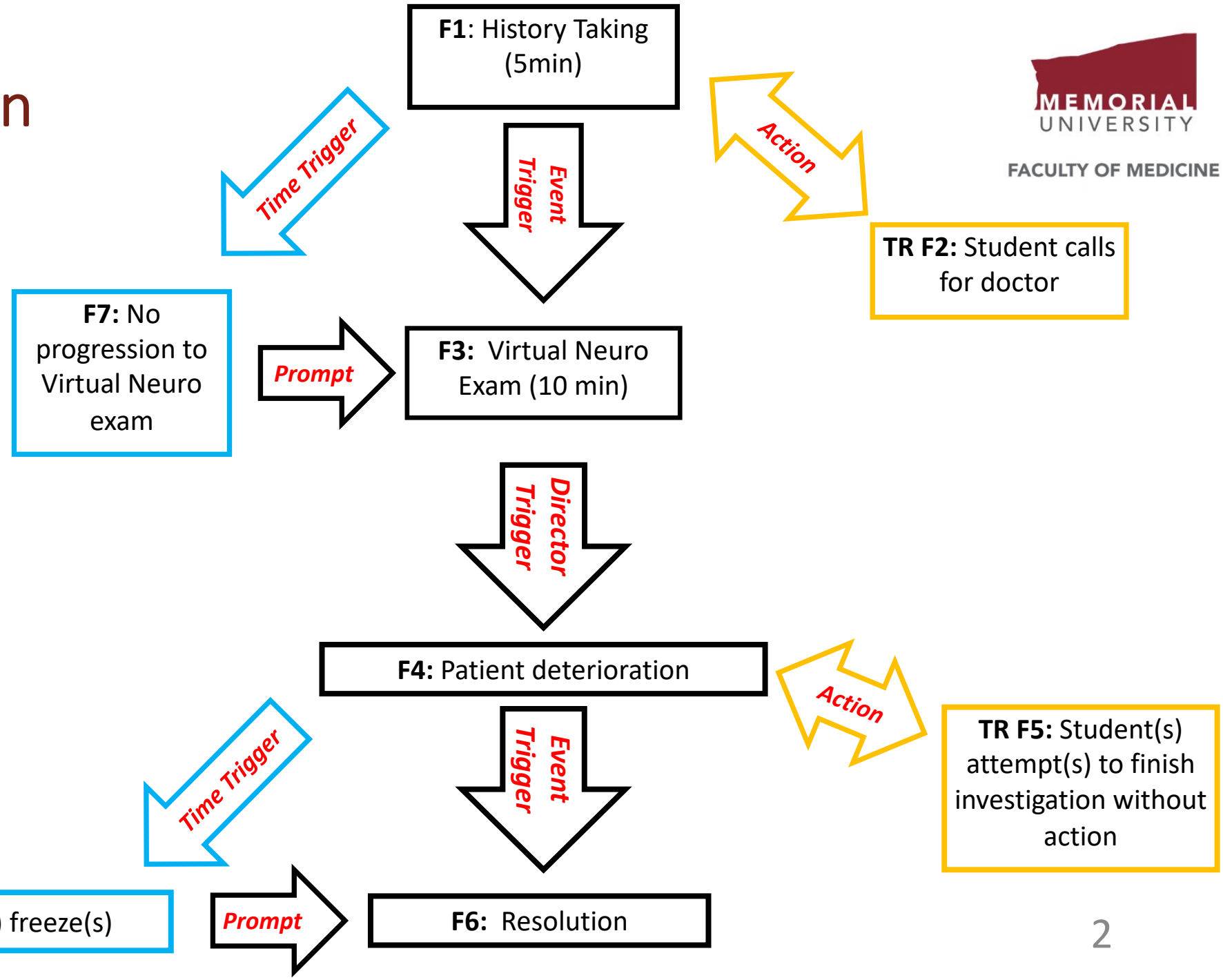


Preclinical simulation-based learning improves:

- Diagnostic reasoning[4]
- Long term recall[5]
- Feelings of competence and autonomy[6]
- Clinical skills[6]

Simulation Design

- Pre-briefing:
  - Fiction Contract
  - Learning Objectives
    - designed using Bloom's Taxonomy[10]
- Storyboard design[11]
- Debriefing with good judgement[12]



Survey Design

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Ranked Simulation Questions

Using a ranking from 1-5, with 1 being completely disagree and 5 being completely agree, please answer the following questions:

1. I feel confident taking a concise (5 min) headache history.
2. I feel confident in my neurological physical exam skills.
3. I feel comfortable evaluating patients virtually.
4. I am comfortable working with other students in clinical situations.
5. I am comfortable working with other healthcare professionals in clinical situations.
6. I am able to provide a differential diagnosis list for headache.
7. I am able to identify "red flags" for headaches presenting to the clinic.

Yes/No Questions

1. Have you ever taken part in low fidelity simulation before?
2. If yes, have you enjoyed simulation as a teaching tool?

Freeform Questions

1. What are you hoping to learn from the simulation?
2. Do you have any concerns about the simulation?
3. Comments?

→ Quantitative (Likert Scale) Questions

→ Yes/No Questions

→ Qualitative (freeform) Questions

Areas Under Development

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1. How to best optimize this simulation for **accessible virtual delivery**?
2. Best practice for **evaluating physical exam skills** in **virtual** environment?
3. Key **parameters** to **assess efficacy** of virtual simulation **as a teaching tool**?
4. Pre- and Post- simulation **survey design**?
5. Adaptation of this simulation as an **evaluation tool** i.e., OSCE?

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