

## **AUGS PFD Week 2024 Abstract**

### **Miscommunication in Robotic Sacrocolpopexy: Causes and Mitigation Strategies**

#### **Objective**

Miscommunication is a critical factor contributing to preventable complications and surgical errors. Our objective was to assess the frequency and underlying causes of miscommunication in Robotic Sacrocolpopexy.

#### **Methods**

Utilizing our validated Speech Communication Interference (SCI) instrument, we identified SCI events, defined as discourse disrupted according to the participants' goals of the communication or the situational context of the exchange, in Robotic Sacrocolpopexy. We measured associated case delays and noted the causes, context, and threats to patient safety. Thematic analysis of field notes and participant interviews provided insights into both the impact on patient safety and strategies to mitigate miscommunication. We measured the loudness (dB) of the machines noted by participants to cause SCI.

#### **Results**

We observed 54 SCI events (4.6 per hour) over 4 surgeries. The range of SCI events per case was 8-21. The majority involved the attending surgeon (87.0%) and six occurred during presacral dissection. Median case delay was 14.5 seconds (IQR 4.0 - 42.3) with a maximum of 180 seconds. Causes included machine noise, such as the patient cart (80dB), lightbox fan (85dB), or vision cart (78dB), located between sender and receiver; concurrent focus on a task (i.e.: circulator charting in EHR); or overlapping conversations, including those unrelated to the Sacrocolpopexy; or combinations of these causes. Interviewees described the robotic OR as generally loud and the patient cart speaker as difficult to hear. Strategies to address miscommunication included leaning out of the console and initiating a telephone game, i.e.: repeating the instruction to a messenger (i.e.: the resident), who would then deliver the instruction to the intended receiver. While no patient safety events occurred, SCI events were noted to distract team members from monitoring patient safety (i.e.: surgeon lifting their head out of console to repeat an instruction and no longer able to monitor the surgical field).

Figure legends:

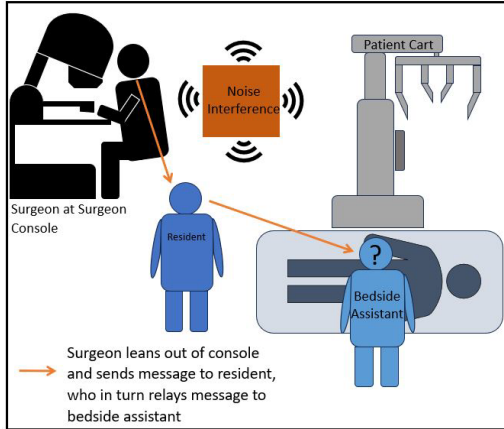
- 1) Diagram of surgical attending leaning out of console to deliver an instruction through a messenger to the bedside assistant ("telephone game") among loud noise sources
- 2) Visual timeline of SCI event showing music and overlapping conversations interfering with the resident surgeon (in console) hearing the attending surgeon (out of console) instructing "Stop dissecting."

#### **Conclusions**

Miscommunication during Robotic Sacrocolpopexy can occur during presacral dissection and raises concerns for patient safety and surgical efficiency. 100% of events caused a delay, highlighting the need for interventions to enhance communication. Possible strategies include 1) implementing headsets with mics, 2) modifying equipment to reduce noise interference, and 3) optimizing OR layout to facilitate clearer communication. Improving communication during Sacrocolpopexies can lead to improved teamwork, efficiency, and patient safety.

## Figures

### 1. Telephone game in Robotic Sacrocolpopexy



### 2. Flowchart of one Sacrocolpopexy Speech Communication Interference Event

