Proficiency Based Education in FLS, FES And Robotic Surgery
– A Dedicated 2 Week Curriculum for Junior Surgery Residents
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**INTRODUCTION**
1. Deliberate learning to attain proficiency is an essential component of surgical residency training and simulation provides a safe environment for such training
2. Time constraints placed on the residents often make such training difficult
3. Training also needs to be structured and resident focused.
4. We designed a 2 week curriculum for simulation training of PGY2 residents
5. This involved proficiency based training in laparoscopic, endoscopic and robotic surgery skills.

**METHODS**
1. 9 PGY2 residents went through the rotation
2. Personalized objectives identified at the beginning of the rotation.
3. The two weeks was equally divided for training in laparoscopic and endoscopic surgery with 2 days of robotic surgery training.
4. Laparoscopic
   a. Didactics – FLS and faculty mentoring
   b. Practice on the Simbionix Lap mentor
   c. Practice in the FLS box with a dedicated faculty mentor
5. Endoscopic
   a. Didactics: FES and faculty mentoring
   b. Practice on the GI mentor and Immersion Accutouch – had to complete at least 60 cases with 90 possible cases.
   c. Practice on physical upper and lower GI models with dedicated faculty mentor.
6. Robotic
   a. Didactics: Davincisurgerycommunity.com
   c. Practice with MIMIC, DVSS backpack and Turkey tissue models.

**RESULTS**
1. All residents passed the FLS exam after the course
2. All residents went on to do a 2 week clinical endoscopy rotation. They were evaluated using GAGES by faculty.
3. All residents passed the FES exam.
4. Residents were evaluated by faculty using GEARS and by the proficiency bench marks set for FRS tasks during robotic training.

**CONCLUSION**
1. Individualized, customizable curriculum with dedicated faculty mentoring was well received by both the faculty and residents.
2. Absence of clinical duties during this time helped both the faculty and residents to focus on skills training.
3. Such curriculum was well timed to help PGY3 clinical and operative requirements.