**Pediatric Interventional Radiology Elective Rotation**

**Rationale:**

To provide pediatric residents with an introduction to the basics of ultrasound with an emphasis on ultrasound guidance for procedures. The elective will also provide residents with a better understanding of interventional radiology and its role in the overall care of the pediatric patient.

Over the past decade, general medical training has changed significantly. What were once thought to be everyday procedures performed commonly by residents has now shifted to procedures performed under imaging guidance by a specialist. There is no doubt that imaging guidance allows for procedures to be done more safely but all procedures should not be taken out of the hands of the general pediatric service. Also, interventional radiology consults and procedures are requested commonly by pediatric residents for patient care. Unfortunately, those requesting the procedures are often unfamiliar with how cases are performed, what the indications and contraindications are, and what the capabilities of interventional radiology are. Patients are then left with conflicting information leading to more anxiety unnecessarily.

It is our goal to address both of these concerns with a four week interventional radiology elective for pediatric residents. We hope that at the end of the elective, residents feel more comfortable with image guided procedures and have a greater understanding of what interventional radiology capabilities are thus providing improved patient care.

**Target Resident:**

This elective would be most beneficial for the late second or early third year pediatrics resident, particularly one that may be interested in pursuing a fellowship in an intensive care setting. Designed for 1 resident per month for a total of 12/year.

**Course Description:**

Schedule: Monday – Friday 7:00A – 5:00P for 4 weeks. No call responsibility. Residents will participate in all aspects of the interventional radiology service:

1. **Simulation**- Residents will be given a tutorial on the use of the ultrasound machine and basic “knobology”. In addition, they will practice ultrasound intervention with a phantom prior to performance of a procedure in a patient. (Total time = 4hours)
2. Didactic Lectures-
   1. Introduction to IR
   2. Ultrasound guided vascular access
   3. Ultrasound guided aspiration and drainage
   4. Role of IR in the ICU setting

In addition, the resident will give 1-2 short presentations throughout the course on assigned topics of interest.

1. Procedures- Residents will participate in all aspects of performing cases. This begins with obtaining consent and being able to discuss the risks and benefits of a given interventional radiology procedure. Next, residents will participate in the actual performance of the case with the aid of an attending. Residents should participate in about 50 cases per month (see breakdown below) with a focus on ultrasound guided procedures. Finally, residents will write post procedure notes and perform patient follow up as needed.
   1. 25-30 venous access (PICCs, central lines, peripheral IVs)
   2. 20-25 Thoracentesis, Paracentesis, Chest tube placement, Biopsy, Drainage
   3. Cases will be performed in operating room, IR suite, cardiac cath lab and bedside
2. 7:30AM Board Rounds – All team members will meet to discuss all cases for the day. Pertinent history and imaging findings will be reviewed and technical details for cases will be discussed.
3. Daily inpatient rounds – All patients who underwent IR procedures should be followed and plans should be communicated with the primary teams.