

Project Overview	
Problem	Residents may miss important findings while taking call with a perceived increase in errors in July
Goal	To improve resident interpretation of pediatric ED exams
Solution	 Analyze resident misses to identify patterns Present findings to the residents with example cases and teaching points Track subsequent resident performance

Logistics of Call at U Chicago Medicine

- Residents (R2-R4) take in-house call from 5pm to 8am with attendings available from home prn
- Preliminary interpretations are entered into the StatConsult system (UC proprietary software) with review of interpretations in the morning consisting of
 - 1. Agree
 - 2. Agree but see report
 - 3. Mild discordance
 - fect patient care
- Current R2 preparation for call
 - 1. Buddy short call for the last 6 months of R1 year
 - 2. General pre-call exam and pediatric specific pre-call exam
 - 3. Required proficiency in pediatric UGI and VCUG studies





Step 1: Analysis of Prior Discordances









Step 1: Analysis of Prior Discordances Discordance by Etiology **Top Missed Fractures** Top 5 Phalanx, finger 35 Missed fracture 148 Distal radius 30 Missed pneumonia 57 Metatarsal 15 Overcall fracture 12 Distal tibia 15 7 Missed elbow effusion Phalanx, toe 11 6 Metacarpal Overcall pneumonia 10 Elbow 6 Missed fractures account for the a large portion (46%) Of all discordances Missed Fxs of the Hands/Wrist/Distal forearm = 28.2% Missed Fxs of the Feet/Ankle/Distal leg = 17%

Step 2: Presentation to Residents

- The 322 discordances were individually reviewed by two residents
- A presentation was created and discussed with all residents on 2/26/2015
- The prior analysis was included along with a set of representative missed cases organized as follows
 - 1. Common discordances
 - 2. "Bad" discordances
 - 3. Pediatric "gotchas"
- A sample of the presentation follows





































Gotcha: Cervical Pseudosubluxation



- StatConsult
 - Apparent anterolisthesis of C2 on C3
- Read
 - Pseudosubluxation
- Key
 - Spinolaminar line within 1 mm

Gotcha: Properitoneal fat stripe



- StatConsult
 - Thin lucency along the lateral aspect of the liver raises the suspicion for a small amount of free air
- Read
 - Normal properitoneal fat stripe. No free air







Conclusions

- Review and discussion of pediatric on call discordances
 may lead to improved resident performance
- Mistakes are more often made by R2s, during July-August, and during the busiest time periods
- The largest portion of resident discordances were missed fractures, particularly in the hands and feet
- Missed fractures and pneumonia often occur when the finding is more evident on the lateral view