

# UCLA Abdominal Imaging/CSIR Fellowship Manual 2018-19

Welcome to the 2018-19 Abdominal Imaging and CSIR Fellowship at UCLA!

Congratulations on completing your residency and joining us as Board Eligible Clinical Instructors. You have made the transition from trainee to colleague. I hope you each have a great year ahead, and hope the fellowship program helps you acquire general and specialized expertise in all aspects of abdominal imaging.

You are the tenth fellowship class to train in one of the most modern healthcare training facilities in the world.

This is both a team and individual effort. Your individual enthusiasm, curiosity and initiative to learn abdominal imaging and interventions via readouts, lectures, journal clubs and conferences makes the whole experience more rewarding for you and us. The partnership between you individually and collectively and the faculty will lead to a long lasting professional and personal relationship hopefully throughout your career.

We are all here to ensure that your individual objectives are met during the fellowship. Each year we modify the fellowship to improve it and ensure that the overall learning experience is maximized.

Although we anticipate a smooth year, there are always issues that come up that may lead to “adjustments” and frustrations. Always talk to me early so we can head off more serious problems and issues.

If you ever have any individual concerns or issue, let me know and we will try to resolve them.

Best wishes for the year ahead!

*Steven S. Raman, MD, FSAR, FSIR  
Professor of Radiology, Surgery and Urology  
Fellowship Director  
Abdominal Imaging & Cross Sectional Interventional Radiology*

## **PROGRAM OBJECTIVES AND GOALS**

The fellowship is designed to address 6 core competencies as defined by the ACGME. These include:

1. Patient care
2. Medical knowledge
3. Practice based learning
4. Communication
5. Professionalism
6. Systems based practice

Our practice incorporates all these objectives in the course of each week.

### **1. PATIENT CARE:**

Patient care is an integral component of our practice, much more so than in almost any other academic radiology practices. We diagnose and treat patients in the ER, inpatient and outpatient settings. We consult and follow up on all liver and renal tumor ablation patients closely in clinic. We follow up on patients with drainage catheters, ureteral stents and nephrostomy tubes primarily through follow up via our nurse and fellow on the CSIR service.

### **2. MEDICAL KNOWLEDGE:**

This competency incorporates a broad range of formal didactic teaching, clinical conferences and resident conferences. There are a dedicated five hours of didactic instruction per week on Monday, Tuesday, Wednesday & Thursday Mornings and the less formal Abdominal Imaging, US and MRI conferences on Friday and Monday Mornings and the biweekly CSIR tumor board on Wednesdays, monthly Wednesday Morning CSIR M&M conference, Thursday Morning Journal Club. In addition, there is a dedicated Oncology and MRI lecture curriculum. There are several other weekly conferences you are either expected to staff or attend to enrich the depth and breadth your fellowship experience. You are encouraged to attend as many other seminars and lectures as you can. You should prepare at least one Radiology-Pathology Seminar and “Hot Seat” for the residents (GI, GU, US) and at least one other 30-60 minute talk on any relevant topic this year.

*Primary/Didactic Education*

2017-18 Proposed Weekly Conference Schedule

	Mon	Tues	Wed	Thurs	Fri
7/8 am	7am: Physics / 8 am: AI Lecture	7 am Oncology/ 7 am Fellows Conf 8 am <i>GI Tumor Board</i>	7 am <i>Surg GR</i> 7am <i>Ablation Conf (4<sup>th</sup> Wed)</i> <i>Tumor Bd</i> <i>M&amp;M</i>	7:00 <i>Neuroendocrine Tumor Board</i> 7: 30 <i>Journal Club</i>	715: MRI Conference 8 am : AI Case Conference
Noon/ 1 pm	12 pm AI Noon Conf 12 pm <i>GYN OC tumor board</i> 12:30 <i>Renal Donor</i>	11:30 <i>Panc Bil</i> 12: 00 US Conf/ 130 pm: GU Tumor Bd	12 pm <i>Endocrine Tumor Board</i> Grand Rounds	RAD-PATH 12:30 pm	> 12:30 <i>GI Rounds</i>
5 pm			> Liver Clinic 430Hepatobiliary Tumor Board	> Resident Lectures	Happy Hour

**Abdominal Fellow Educational Conferences:**

*Sectional Conferences*

- **MRI Physics Lecture Series: Mondays 7:00-8:00am 1621C Reagan Conference Room (Until October)**

This lecture series is designed to stimulate learning in MR Imaging starting from the basics of MR to more advanced concepts such as Spectroscopy, Diffusion, Perfusion, Elastography and liver and iron quantitation.

- **Abdominal Fellows Lecture Series: Mondays 8 am; 1621c RRH Conference Room (RCR)**

This series is designed to be a foundation for understanding fundamental and advanced concepts in CT, MR and US relevant to clinically relevant topics in abdominal imaging including GI (liver, pancreas, bowel) and GU (trauma, infection, neoplasms, gyn, urethra). It is designed to be interactive stimulate further reading in these and related topics. Any suggestions for topics are welcome and you are encouraged to present if you wish.

- **Oncology Didactic Conference: Tuesday 7:30-8:30 Resident Lounge**

This lecture series is designed to make you fluent in the language of imaging based oncology. This includes familiarity with RECIST 1.1, WHO, CHOI and understanding the imaging and relevant clinical features of common cancers.

- **Abdomen Fellows Conference: Tuesday 7:15-8:00 Resident Lounge (Alternate with Oncology)**

This conference is for each fellow to show interesting cases collected but not shown at other conferences

- **US Didactic Conference: Tuesday 12 noon- 1pm, 200 MP B level MRI room**

This is a combined alternating Lecture and Case Conference. For cases, the US fellow from the prior week shows interesting inpatient and outpatient cases to the group. Make sure you know the radiology and the relevant clinical history and follow up. The fellow keeps a log of all cases and works with Anthony Contreras to populate our Interesting Case Teaching File Database.

- **Ablation Conference: Wednesdays 7 -8 am, 1621c Reagan Conference Room (RCR)**

The CSIR fellow from the prior week(s) shows interesting ablation cases to the group with focal discussions. Make sure you know the radiology and the relevant clinical history and follow up. The fellow keeps a log of all cases and turns the list into Afsoon for inclusion in the Interesting Case Teaching File Database.

- **Journal Club: Thursday 7 -8 am (Third Thursday) 1621c Reagan Conference Room (RCR)**

We will default to Radiographics reviews to be presented on a rotating basis by 2-3 fellows

- **MRI Case Conference: Fridays 7:15 -8 am, 1621c Reagan Conference Room (RCR)**

The MRI fellow from the prior week shows interesting cases to the group with focal discussions. Make sure you know the radiology and the relevant clinical history and followup. The fellow keeps a log of all cases and turns the list into Afsoon for inclusion in the Interesting Case Teaching File Database.

- **Abdominal Imaging conference:  
Fridays 8-9 am; 1621c Reagan Conference Room (RCR) (Weekly)**

Dr Kadell usually shows a number of interesting cases. The Inpatient GI/CT fellow is should also show at least 1-2 good cases. The Inpatient GI/CT fellow keeps a log of all good cases and turns the list into Afsoon for inclusion in the Interesting Case Teaching File Database. Each fellow is also responsible for bringing 1-3 of the best cases from the recent past. Cases preferably have been worked up to ensure that the diagnosis is well established. The case conference is designed to showcase a large number of interesting cases with a focused discussion of the relevant teaching points. Make sure you know the radiology and the relevant clinical history and follow up.

- **Los Angeles Body Imaging Club:**  
**Quarterly (4x/yr) 6-10 pm; Alternate Venues (UCLA, USC)**

This is a quarterly meeting alternating between USC and UCLA with participation from UCSD, UCSF, Stanford, UCI, Harbor, Olive View, Cedars, Kaiser, Vanderbilt and others on WebEx. You are each responsible for presenting one to two exemplary case to a group of academic and community radiologists from around Los Angeles. Everyone presents their best cases. Dinner Included

- **Noon Conferences:**  
**Mondays 12-1 pm; 1621c RRH Conference Room**

You are encouraged to attend the Monday AI noon conference and as many of the remainder of the resident noon conferences and Thursday afternoon lectures and events as you can. You are encouraged to give noon conferences and board reviews

- **Radiology-Pathology Conferences:**  
**Monthly Thursdays 12-1; Tamkin Auditorium**

Each of you is responsible for getting 6 cases over the year and presenting a conference in GI, GU or US. The cases should be of academic interest with surgical pathology. The conference is conducted in cooperation with the pathology resident. The conference is easy to prepare if you regularly attend the clinical conferences: Multidisciplinary conference (Tu), GU tumor board (Tu), Hepatobiliary tumor board (Wed), GU Grand Rounds (Thu), GYN onc tumor board (Fri)

- **Radiology Grand Rounds:**  
**Monthly Thursdays 4-5 pm; Tamkin Auditorium**

You are encouraged to attend as many of the resident lectures and events as you can. You are encouraged to give noon conferences and board reviews

## *Interdepartmental Clinical Conferences*

Required Attendance and Presentation (A.I. fellow and attending run). You should organize yourselves to rotate presentations at these conferences in a manner that best suits your fellowship class. **With assigned attending, the fellows are responsible for reviewing relevant radiological studies in the following conferences:**

- **GYN Oncology Tumor Board: Mondays 12-1 pm; B2 Rad Onc Conf Room 200 MP**

You get the weekly list emailed from the GYN ONC fellow and make powerpoint slides of relevant images. There is a good spectrum of relevant GYN ONC cases (ovarian, endometrial, cervical) with radiology, pathology and management problems. (MRI/US fellow)

- **Renal Donor Conference: Bi weekly/Irregular Mondays 12:30-1 am Connie Frank Conference Room 200MP 5<sup>th</sup> floor**

The MP/MR fellow works with Brenda Brown in 3D lab to make sure that the requested cases are on the Vitrea Workstation. You then review the appropriate CTA or MRA in conference to present arterial and venous anatomy. (GU fellow)

- **Multidisciplinary Colorectal Cancer Conference:  
Every Tuesday 8-9 pm: RRH 8-234 Conference room**

Drs. Douek and Patel prepare relevant cases for discussion of colorectal cancer issues conference involving radiologists, surgeons, & oncologists.

- **Pancreaticobiliary Conference: Tuesdays 11:30-1:00pm; CASIT Conference Room B**  
Dr. Kadell primarily runs this conference. It focuses on tough pancreatic and biliary disorders from imaging, GI, IR and surgical perspectives. Great discussion of common and uncommon pancreatic and biliary cases. (All fellows)

- **Genitourinary Tumor Board: Tuesdays, 1:30-2:30pm; Wasserman Conference Room 3<sup>rd</sup> Floor**

The list of cases (Renal, prostate, Bladder, Scrotal) is emailed to our assistant by the GU Oncology fellow. All outside films should be entered into Centricity PACS by them via the film library. You should consult Drs Raman. You present cases using our laptop via Centricity with their projector. The GU fellow presents the imaging. (+++ food)

- **Endocrine Tumor Board: Wednesdays, 12:00-1:00 pm; CASIT Conference Roo**

The list of cases (Renal, prostate, Bladder, Scrotal) is emailed to our assistant by the GU Oncology fellow. All outside films should be entered into Centricity PACS by them via the

film library. You should consult Drs Raman. You present cases using our laptop via Centricity with their projector. The GU fellow presents the imaging. (+++ food)

- **Hepatobiliary Tumor Board:**  
**Wednesday 4:30-5:30 pm; 200 MP B2 Radiation Onc Conf Rm (twice monthly)**  
Focuses on liver/biliary imaging, pathology and management. This conference is primarily run by Drs Lu or Dr Raman on a twice-monthly basis and alternates each week with a lecture series related to hepatobiliary problems. (+ food) Great discussion of complex liver/biliary/metastatic cancer cases. (All interested fellows esp CSIR)

**Neuroendocrine Tumor Board: 7am Thursday Morning**

### **Meetings:**

European Society of Urogenital Radiology, Barcelona, Sp September 13-16

[Society of Radiologists in Ultrasound: San Diego, Ca October 5 - 7, 2018](#)

RSNA, Chicago Il, November 25-30

[Society of Abdominal Radiology 2019, Orlando, Fl March 17-22, 2019](#)

[Society of Interventional Radiology 2019 Austin, Tx March 23-28, 2019](#)

World Congress on Interventional Oncology 2018, Boston, June 7-11 2019

European Society of Gastrointestinal and Abdominal Radiology, Rome, It June 5-8,

**Los Angeles Radiological Society (LARS [larad.org](http://larad.org)):** Great local meetings with Experts. Please expect to attend the US dinner meetings in Marina Del Rey, the midwinter meeting and the Spring US (June) course. [www.larad.org](http://www.larad.org) Membership is free for fellows:

[71st Annual Midwinter Radiology, Radiation Oncology Conference and Conjoint Nuclear Medicine Seminar and California Radiological Society Annual Meeting and Leadership Summit February 8-10, 2019](#)

[Renaissance Long Beach](#)

### **3. PRACTICE BASED LEARNING**

This competency is the bulk of the fellowship. You are not just end users or readers. This is your year to understand the fundamental principles of MR, CT, CT-PET and US imaging and appreciate recent advances in the field. We want to dissect protocols, understand how and why things are done and how to make them better.

- Acquire expertise in all aspects of contemporary Abdominal Imaging and basic interventions:

Organ System Areas of Expertise:

- Hepatobiliary Imaging including US & MR Elastography
- Pancreatic Imaging
- Bowel Imaging
- Renal and Adrenal Imaging
- Prostate Imaging & Biopsy
- High Risk OB imaging
- GYN benign diseases and Oncology
- Abdominal Vascular Imaging
- Oncological Imaging (PET CT and Clinical Trials)

Procedural Expertise:

- Fluoroscopy (Upper GI, BE, Pouchogram, HSG, Defecography)
  - Abdominal CT, CTA, CTU, CT colonography, CT enterography, PET CT
  - 3D post processing techniques: Vitrea, SyngoVIA, DynaCAD
  - Abdominal/Pelvic MR (Liver MRI including MR Elastography, R2\* and fat fraction, Enterography, MRA, MR spectroscopy of prostate, MR pelvic floor, MR defecography, MR enterography, GYN-uterine & Fetal MR).
  - Ultrasound (including 3D/4D, high risk OB, vascular and saline hysterosonography, US Contrast, US pelvic floor) ,
  - Cross Sectional Interventional procedures (US, CT & MR guided biopsies, and drainages) nephrostomies, nephrolithotomy tract placements, and tumor ablation with RF, Cryo, IRE or Microwave.
- Prescribing, performing, and interpreting body imaging studies using state-of-the-art equipment and techniques at expert level
  - Refining skills in consultation, presentation and teaching
  - Preparing conferences and ongoing education
  - Acquiring role models and mentors
  - Mentor junior colleagues

## ***Core Rotations:***

The fellowship is divided into 52 one week blocks.

Rotations for 2018-19 include: GI INP (Reagan), MRI/OP-GI, GU/Onc (Reagan), Cross Sectional Interventional Radiology (CSIR), Outpatient US and, Chest, Oncology, SM Abdomen and four weeks (28 calendar days) of vacation.

The fellow is responsible for understanding the key functions of each service and is responsible for its smooth administration on a daily and monthly basis. Work hours are typically from 8 am to 6 pm.

Fellows are expected to arrive promptly and assess the workload for the day via the (Medicalis Worklist). Fellows then structure their day depending on the workload, attending coverage, & resident coverage.

**Primarily responsibilities on each service:**

- Clinical Consultations (Clinicians, technologists) including MR pager.
- Understanding of the technical aspects of CT, MR and US. Updated protocols guide workflow especially in CT and MR.
- Understand workflow and organize themselves to meet the individual needs of each service.
- Mentor and guide work to residents (appropriate to resident skill level).
- Use the standard templates for the powerscribe worklists

## **Fellow Rotations**

**INPATIENT GI (Reagan) (IP/GI):** This is among the busiest overall rotations but also has some of the best and broadest mix of ER, inpatient and outpatient CT cases. The Inpatient GI fellow is responsible for:

- Triaging all inpatient abdominal CT scans: In general the ER and inpatient scans should be given to the junior residents. The number triaged to residents will depend on their proficiency, level and skill (variable). The fellow reviews the remainder. The first CT readout usually begins between 9-10 am. You should become organized with Care Connect, Medicalis and pre-dictate with Powerscribe.
- Answering protocol and appropriateness questions from the CT technologists.
- Fluoroscopy: Check the requisitions with the technologists and triage appropriately. Most cases are single contrast studies
- Organize and Present selected interesting cases at Friday imaging conference with Dr. Kadell
- Try to attend the Tuesday Pancreaticobiliary Conference and also US Conference

**MRI/OUTPATIENT GI (MP 200) (OP/GI):** On this service, the fellow is based at 200 Medical Plaza and is responsible for:

- **Triaging all Abdominal and pelvic MR studies** from UCLA Westwood and Santa Monica, 1919, Martin Luther King (MLK), Santa Clarita, Palos Verdes and Manhattan Beach including all abdominal MRA studies except those RAS studies and primary aorta cases (read by DCVI). In general all CHS and SM inpatient MR scans should be read first. Familiarize yourself with the MRI master template.
- **Read all MRI and MRA studies of the abdomen and pelvis** (except Prostate, Rectal, Bladder Uterine and Cervical cancer MRI) from Reagan (Avanto & Trio), MP 100 (Sonata), 200 (GE HDx), 300 (Avanto, Prisma & Vario), SMH (Sonata), SMO (Avanto & Vario), SMWG (Vario 3T), MBIP (Vario 3T), Santa Clarita (3T) and Palos Verdes (3T).
- MRAs of aorta-iliacs or primary renal artery stenosis are read by the DCVI service
- Contacting the lead MR techs in Reagan, 200MP, 300MP and SMH daily
- Answering protocol and appropriateness questions from MR techs.
- Supervise residents to perform AM fluoroscopic studies (esophagram, UGI, SBFT, enteroclysis, BE, defecography, & HSG) at 200 MP

**GU/3D Lab (Reagan) (GU 2):** On this service, you will gain expertise in interpretation of Uroradiology, CT and fluoroscopy, Prostate MRI, MR guided Prostate biopsy and 3D lab post processing. The fellow is responsible for:

- **Administering the GU service:** Know the techs and nurses for the day. On this service, the fluoroscopic procedures (RUG, loopogram, cystograms, VCUG etc) are all done by the techs per protocol. Make sure you have the old studies (usually not on PACS) for any cases that need them.
- **Prostate MRIs:** Studies are performed at 3T (Siemens Skyra, Vario, Trio, Prisma). If there is metal (Siemens Avanto 1.5T). Most studies are performed without an Endorectal coil unless requested for surgical planning or staging. Please learn PI RADS v2 and UCLA PI RADS. All studies are processed on DynaCAD 3.2 and also on Siemens SyngoVIA. All studies are post processed by Brenda Brown (x78789) and her staff: Vincent, Varun, Faye and Mauricio on a daily basis. They will outline the prostate and attempt to locate obvious lesions and will communicate their results.. You should learn how to use DynaCAD 3.2 and use the template to fill out the report prior to readout. Know PSA, Prior Bx and MRI history.
- **MR guided targeted prostate biopsies:** Performed typically on Mondays and Wednesdays on the Siemens Trio or (1.5T Avanto) and Tuesdays at Santa Monica (Skyra). Sometimes performed on Thursday and Friday also. These are almost always transrectal using the DynaTRIM device but are often transgluteal using special MR compatible needles. Consent patients for biopsies and IDX tissue storage and perform the MR guided targeted prostate biopsies. All patients undergoing transrectal receive ceftriaxone and flagyl . Please put in the pre procedure orders for PTU and orders for ceftriaxone 1 gm iv and flagyl 500 mg iv.

- **CT cases: Help triage the routing CT urogram and CT KUBcases to the residents** (mixture of CT urograms, CT KUB's, and general outpatient CT)
- **3D lab cases:** The 3D in Reagan will accessible via PACS by Vital Images Web service. It is usually busy on Fridays and Mondays with donor CTA's. There are 2-4 CT virtual colonographies, and weekly volumetric liver assessments and liver donor CTA. Brenda Brown and her staff in the 3D processing technologist.

**Read all PSMA PET CT and PET MRI scans** and staff them out with GU and Nuclear Medicine attendings.

- **Read all Multiparametric MR Oncology studies requiring DynaCAD:** Prostate, Rectal, Bladder and Cervical cancer
- **Read all MR Elastography and All MR Fat and Iron Quantitation Studies**
- **Read all CT Perfusion cases** with me
- **Triage elective CSIR cases based on the following:** Protocol upcoming cases and give them to the schedulers (x55659 or x55706) ASAP to increase case volume.
  - Urgency
  - US preferred vs US&CT vs CT alone; Don't forget transvaginal or transrectal US guidance;
  - Difficulty. Put the most difficult cases on for myself (or Dr Lu) after paging me (him)

**CSIR (Cross Sectional Interventional Radiology):** You should concentrate on cases requiring US or CT guidance and split cases with the angio/IR fellow. Keep a procedure log.

- You work in concert Angio/IR fellow and a resident to administer the service which includes abdominal and thoracic procedures. Thoracic procedures are split between yourselves and the thoracic fellow.
- Put in the Care Connect Orders in for the day's Outpatients on the night before.
- Put in pre procedures orders and post procedure orders whenever possible.
- Service starts at 7 am for prepping AM cases (consents, labs etc) and includes two schedulers (Tran x79781 and Carlos x 55706 ) and at least 3 nurses each day.
- The lead CSIR nurse (pager # 93810; x79772) comes in at 7 am and has the master list of scheduled and add-on cases. We need to consent all patients in the 1<sup>st</sup> and 2<sup>nd</sup> floor PTU to start the process to bring down the scheduled patients.
- Routine US based Cases are performed in the CSIR room
- All Ablations will be primarily performed on the Definition 64 detector scanner CT 4 on the 2<sup>nd</sup> floor but can be performed on the first floor for overflow on occasion.

- Add on ablations and routine CT procedures will be performed on CT 1 (64 detector CT) on the first floor.
- All Scheduled CSIR Cases should be protocolled at least on day ahead with respect to imaging guidance, anesthesia level (e.g. nursing conscious sedation or general anesthesia).
- Check the daily schedule each morning for scheduled cases and any inpatient or outpatient add-ons. Triage the cases based on the following:
  - Urgency
  - Skill level (give easier cases to resident)
  - Availability of equipment: US > CT > MR
- Review all studies and H&P for each patient, especially the Ablation Patients.
- For Ablations, introduce yourself to the anesthesiologist and discuss the case including need for breath holding (requires paralysis) and patient positioning
- At a minimum, each patient should be:
  - NPO to solids for 8 hrs or clear liquids for 2 hrs for conscious sedation
  - Have all current labs including PT/INR, BUN/Cr, basic electrolytes
  - A consent for the procedure and for conscious sedation
- Each procedure must be performed with an Attending per Medicare rules.
- In general, after the critical portion of each case, the next patient can be called for to minimize delays.
- All Care Connect orders should be put in the appropriate phase of care for the pre procedure and post procedure phases of care. A standard note, medication and nursing orders and post procedure care (PTU orders for outpatients) should be performed preferably ahead of time to be maximally efficient.
- Check the cases for the following day prior to leaving to minimize surprises
- Protocol upcoming cases and give them to the schedulers (x55659 or x55706) ASAP to increase case volume.

**Oncology (Westwood/SM):** On this service, you will gain expertise in interpretation of PET CT and clinical trials. The fellow and resident read out in RRH on Monday and Tuesday and SM on Wednesday Thursday and Friday in SM.

- Work with resident to cover all PET CT from RRH and SMH.
- There is a joint conference with Nuclear Medicine at WW at 3pm and virtually at SM

**100 MP US/Clinic:** On this rotation you are expected to become skilled at high risk OB, vascular US, thyroid US. You should try and double check all high risk OB patients and read High Risk OB MR and US. You will also check technologist work and scan in real time for difficult cases. Make sure you contact the lead tech and your tech staff and make sure they run all OB cases and all non-routine cases by you before letting the patients go. You are expected to help run the imaging in the CSIR clinic (100 MP) on Monday and Tuesday Afternoons and Thursday and Friday mornings and readout the MR and CT scans.

- Help the junior residents understand basic US.

**SM Abdomen:** The SM Abdomen fellow will do a combination of imaging and intervention from Monday through Friday and assist in SM Tumor Board. This rotation gives you a chance to experience a community hospital setting with state of the art imaging and cross sectional interventions. On Fridays, the fellow will be at Westwood to show interesting SM cases in conference and primarily read overflow MR and CT scans with possibility for jeopardy. On Tuesdays, there will be MR guided Prostate biopsies and Ablations in SM.

**Acute Care Imaging:** Based in SM from 10 pm – 7 am. Read full mix of cases as final read. Will have concurrent Neuro Attending with you this year. Responsible for RR, SM and MLK.

**Call:** One weeknight per week and one of six weekends. Weekend pager call starts at 7 pm Friday until 8 am Monday. On site call starts at 8 am until 2pm in house at Reagan. We cover the entire list of plain films, CT, US, MRI from Reagan and SM. Faculty readout is variable and requires that you check in with individual faculty.

### ***Radiology Workflow Systems***

There are five systems to understand:

Care Connect: Hospital Information System for everything.

Centricity: This is the PACS system that may be accessed individually or through Care Connect and Powerscribe for dictation. Same password as Care Connect

Medicalis: This is the bridging system that creates radiology worklists that bridge Centricity and Powerscribe

Powerscribe: This is the Voice Recognition System requiring the same passwords as Care Connect.

Veriphy: This system enables secure communication with referring physicians and is used for communicating critical results.

## **4. COMMUNICATION**

This competency incorporates your clinical and didactic teaching activity in # 2

Hints:

Legally a missed communication of a serious finding is considered negligent as a duty of the radiologist. Documenting a conversation with another physician may be performed in the following ways:

1. Document the date and time of conversation in the dictation.
2. Use the Web pager and alpha page a result to a physician. This is a documented method of communication.
3. Use the hospital operator (x66766) to page a physician.
4. Use the hospital operator to use the call connect system to directly reach a person.
5. Use Veriphy-required in appendicitis and aortic dissection cases.

## **5. PROFESSIONALISM**

We will treat you as colleagues, trust you and rely on you and hopefully you will reciprocate. We're all in this together to have a great year.

Dress Code: Shirt and Tie for men and professional attire for women. Please wear your White Coat and Badge always. You will meet a variety of colleagues from different departments and present at conferences. You are representing AI/CSIR. Please be at your best. Scrubs are fine only for CSIR.

## **6. SYSTEMS BASED PRACTICE**

We expect that you attend the business and legal lectures and seminars given to the residents

## **RESEARCH**

This year, each fellow is expected to undertake a project and present it in poster form at the Radiology End of the Year party. The winner does get up to \$1500 second prize \$500. Faculty in the Abdominal Imaging Division have many ongoing projects, and fellows are actively encouraged to participate in those projects. Time, money and facilities are available for research, and fellows are actively encouraged to become involved in projects during the fellowship year. In past years, fellows have usually presented at national meetings. Though most research conducted in the department is clinical, tremendous departmental and university resources exist for a broad variety of research endeavors. Be HIPAA and OPRS certified.

The Department of Radiology takes pride in its research and development of such advanced imaging techniques as magnetic resonance imaging, digital radiography, PACS, positron emission tomography, single photon emission tomography.

### **Other:**

**Vacation:** 20 calendar days

**Academic Account:** \$750.00/per fellow; additional funds available for research related travel

**Social:** Happy Hour and other social events planning is encouraged!

We hope this will be the most enjoyable, most professionally rewarding and challenging year of training. You will definitely get multiples of reward for any effort you make in the fellowship.

Good Luck for a fantastic fellowship year!

*SR*

*Steven S. Raman, MD*

SR:AJC

7/1/2018

## FELLOWS TIP SHEET

### Oncology:

#### Monday and Tuesday (Westwood)

-Filter: UCLA PET CT ALL

-Usually the radiology resident on nuclear medicine will e-mail a list of the PET/CTs to be read each day

-Read all the PET/CTs timestamped prior to 2:00 PM (occasionally read PET/CTs timestamped after 2:00 PM if STAT or if clinician requests read)

-Staff out PET/CTs with chest attending and abdominal attending throughout the day (if PET/CT involves head and neck cancer, also staff out with neuro attending)

-Meet with nuclear medicine to staff out cases from the day usually around 3:00 PM to 4:00 PM in nuclear medicine in the basement of the hospital

-One nuclear medicine attending reads Westwood cases, another nuclear medicine attending reads Santa Monica cases

-Edit reports and assign each PET/CT to each of the attendings you staffed out with in EPIC (under the PET/CT study in EPIC, click the assign tab, and then pick each attending's name and choose the appropriate number of attendings)

-Usually will assign 3 attendings (chest, abdomen, nucs) and sometimes 4 attendings (chest, abdomen, neuro, nucs)

#### Wednesday, Thursday and Friday (Santa Monica)

-Filter: UCLA PET CT ALL worklist

-Usually the radiology resident on nuclear medicine will e-mail a list of the PET/CTs to be read each day

-Read all the PET/CTs timestamped prior to 2:00 PM (occasionally read PET/CTs timestamped after 2:00 PM if STAT or if clinician requests read)

-Staff out PET/CTs with attendings on oncology (usually 2 attendings) each attending will read the whole study (chest and abdomen) throughout the day (if PET/CT involves head and neck cancer, also staff out with neuro attending)

-Staff out Santa Monica cases with nuclear medicine attending using OsiriX in afternoon usually before staffing out Westwood cases via teleconference

-Teleconference/remote desktop with nuclear medicine in Westwood to staff out the Westwood cases from the day usually around 3:00 PM to 4:00 PM

-Edit reports and assign each PET/CT to each of the attendings you staffed out with in EPIC (under the PET/CT study in EPIC, click the assign tab, and then pick each attending's name and choose the appropriate number of attendings)

-Usually 2 attendings (chest and abdomen, nucs) and sometimes 3 (chest and abdomen, neuro, nucs)

Please feel free to make any corrections or make additions!

Eric

On Fri, Aug 5, 2016 at 3:37 PM, Ashkan Shademan <[ashkan.shademan@gmail.com](mailto:ashkan.shademan@gmail.com)> wrote:  
Hello Team,

Although most of us have already rotated through MRI, I thought I would put a few words about this rotation as well. MRI rotation is very straightforward.

- Reading room location: 200 MP, B1 Level, door code: 2001234
- Filter: UCLA Abdomen MRI ALL
- We also cover outpatient fluoro studies that happens in upper level of the reading room.
- Access the fluoro schedule by going to **EPIC> schedule> create > Configuration> (search by provider) MP2 RF Radiology 01&02 > Accept**
- Ablation clinic patients will be staffed by the ablation attendings rather than the MRI attending that day, frequently also read by the US fellow, but help out if you can.  
Exception: Dr. McWilliams' cases will be staffed by the MRI attending.

Any points about the Onc. rotation will be appreciated. Have a great weekend.

Ash

On Fri, Jul 15, 2016 at 7:16 PM, Raman, Steve M.D. <[SRaman@mednet.ucla.edu](mailto:SRaman@mednet.ucla.edu)> wrote:

Hi Guys

This is excellent. Please continue to help each other and lets collect these invaluable tips for each service. We can update them throughout the year as each person rotates on each service.

See you bright and early at 7 am on Monday for Physics and Prostate Lectures. We also have US lectures and journal club next week

Have a great weekend

SR

**From:** Ashkan Shademan [mailto:[ashkan.shademan@gmail.com](mailto:ashkan.shademan@gmail.com)]

**Sent:** Friday, July 15, 2016 6:21 PM

**To:** Paul Murphy <[paul.martin.murphy@gmail.com](mailto:paul.martin.murphy@gmail.com)>

**Cc:** Nelly Tan <[nelly.tan@gmail.com](mailto:nelly.tan@gmail.com)>; Smith, Sandra J. <[SJSmith@mednet.ucla.edu](mailto:SJSmith@mednet.ucla.edu)>; [haatal.b.dave@gmail.com](mailto:haatal.b.dave@gmail.com); [erictliu@gmail.com](mailto:erictliu@gmail.com); [nicka3@gmail.com](mailto:nicka3@gmail.com); Raman, Steve M.D. <[SRaman@mednet.ucla.edu](mailto:SRaman@mednet.ucla.edu)>

**Subject:** US Roatation Details

Hello Team,

Here's a few points and tips that I (might have) learned on the US rotation:

- The list will usually stay empty until at least 8:30-8:45. If there is a conference that we can go to, we won't fall behind. Techs usually go to lunch from 12:15-1:15, a good window to be caught up.
- The techs come to you and the studies will show up on the list in big boluses. Especially if there is not a second member with us on the rotation, we better read them as fast as we can.

- The techs are very good and accurate. They will put their findings in Epic. I thought thyroid and OB ultrasounds are the ones that may need further/repeat imaging.
- We are primarily responsible to read from the Westwood US OP list. Sometimes, we might be asked to help out with IP list as well.
- On clinic days, we also will read clinic MRIs on the days that abdominal attendings are seeing the clinic patients. There's a white board with patient names in the reading room. Search in Medicalis for their MRIs close to the appointment times and read them when you can.

Have a great weekend,

Ashkan

On Mon, Jul 11, 2016 at 8:10 AM, Paul Murphy <[paul.martin.murphy@gmail.com](mailto:paul.martin.murphy@gmail.com)> wrote:

Hey guys,

Just wanted to send out a couple of details for abdominal call since I was on this weekend. It's a pretty good shift, not too long, and not a lot of interruptions since ACI covers the ED.

Filters:

We read most studies on the following lists:

- UCLA Abdomen CT Westwood (focusing on studies with Patient Location = RRMC)
- UCLA Abdomen GU
- UCLA Abdomen MRI ALL (we skipped a few studies, ie skipped outside interpretations and prostates since my attending this weekend didn't read those)
- UCLA Abdomen Santa Monica
- UCLA Ultrasound IP Westwood

- UCLA Abdomen XR Fluoro All (leave until the end, since ACI takes care of a lot of these too)

#### Hours:

- arrive at 8am
- read studies until ~2pm (although we read a couple of studies that came in after 2 just to get it done)
- attending arrives mid-morning to review / sign cases
- leave after approving all reports

#### Pages:

- we did one fluoro case at RR for rule out leak
- i got paged about one fluoro case at Santa Monica, but the ACI fellow wound up doing that (the resident paged me initially to ask then immediately paged again to say ignore that last page)
- i got paged by an MRI tech to help find a rectal cancer so they could scan the right location
- most other pages were for random stuff

Anyway, please correct this if there's any other official policies, but just wanted to jot down what I learned this weekend. Otherwise pretty self explanatory!

-Paul

Joseph Liao M.D.

#### CSIR:

- To save time, you can put in postprocedure orders at the same time as preprocedure orders.
- "Fast track" cases without IV sedation (superficial procedures) can be done across the hall in US.
- Eat early (I like lunch at 11am); the workflow tends to be afternoon heavy.
- Check patient location in Epic and start consenting them when they're in PTU (preprocedure area). Waiting for the charge nurse delays your workflow.

#### GU:

-When readout is at the end of the day, you can finalize the prostate MR reports the following morning.

-When reading cases, write brief notes into Powerscribe; only make DynaCAD reports afterwards. That way, if you're wrong, you didn't waste any time.

-GU tumor board: Good lunch, good cookies.

US:

-The sonographers take lunch break from noon-1pm. Go get lunch in the village.

Onc:

-The daily list ends around 1pm, but patients still get scanned all afternoon. If you finish early, start drafting the next day's PET-CTs. Makes the next day less hectic.

For all rotations: Bring a bluetooth speaker for tunes.

## Abdominal Imaging IT and Reporting Tips and Tricks

### PACS:

- Configure hotkeys (Utilities -> Tool Preferences -> Keyboard Shortcuts):
  - Ruler: R
  - Measure Hounsfield Units: E (ellipse)
  - Spatial Cursor Tool: C (crosslink)
  - Select: S
  - Arrow: A
  - Pan: P
- Search without using MRN: easiest way if patient had the study within the last 72 hours – use All Recent Exams and type in the first 3 letters of the last name
- Hanging: Save DPPs to your favorites and apply to study types automatically, CT: 1 screen, PET/CT: 2 horizontal, US: 4 per screen, MRI: 6 per screen
- Exam Closing Options: (Utilities -> Preferences -> System Preferences): Unclick Prompt to Save Image, click all others
- PACS Folders that you can save to or retrieve studies from: Interesting Ultrasound Cases, GenSurg multidisciplinary tumor board, Gyn/Onc tumor board

### Medicalis:

- Reassigning studies to other sections: Open study, scroll down left bar to Edit Study, Subspecialty = Musculoskeletal (e.g., CT pelvis to look at the bones), DCVI (e.g., CTA A/P to assess AAA graft)
- Assigning studies to GU: Right click -> Type GU and select UCLA ABDOMEN GU
- Rearranging columns and saving (right click on the tool icon at the top of the headers after rearranging the columns to your satisfaction, save the layout as yours, then apply the layout to different worklists)
- Layout organization: Plug-in Preferences -> Powerscribe 360 -> Click “Enable Next Unread, Advanced Logging, Save on Draft”, Action when opened from Nuance = Read Study
- Checking who owns which study when someone calls for a read: use the search function and then see which worklist it’s on

### Epic:

- Finding notes associated with a study: Use “Study Review” button and enter accession number
- Finding outside imaging reports: Use “Imaging” and click on the study, then click on the Notes area to review scanned report
- Can search for pertinent notes by using the filters (common one is “Op Note”), also can type in search word to find relevant information pertaining to that term

- Interesting cases button and search: every case has an interesting study option in Epic
- While on PET/CT: At the end of the day, assign studies to attendings in Epic and change # of signers to 3 if there are 3 readers (if split at the diaphragm, there will be one abdomen attending, one chest attending, and a nuclear medicine attending, otherwise it is defaulted to 2 signers)

### **Powerscribe:**

- If you type, create text shortcuts (create your own by typing what you want a phrase to say in the AutoText Editor screen, then typing the shortcut option - usually no more than a few letters - in the shortcut field)
- Linking studies: for example, US Transabd, transvag (click on right side of Powerscribe 360 to add accession number)
- Report Addenda by finding the study by accession and then clicking on it

### **Powerscribe Templates:**

- You must use the section templates – they have been devised by consensus based on guidelines from the RSNA/ACR and revised on a continuous basis to reflect how our section wants to report our studies and include pertinent positives and negatives
- Rationale: Structured reporting can be faster/easier after initial learning phase, preferred by referrers, simpler for comparison when reporting follow-up studies, prompts you to enter all necessary information, and overall leads to fewer errors and increased report uniformity and accuracy
- Make sure to enter the correct template for nonspecific order codes as the appropriate template may not automatically insert. The templates can be found under “All Site” for the header of the Autotext editor and scroll to appropriate template and double click on it. For example:
  - CT ABDOMEN PELVIS W WO CONTRAST, can refer to liver, pancreatic, renal protocol, should choose template accordingly (all can be found in the site templates);
  - US OB > 14 WEEKS can refer to 2nd or 3rd trimester US;
  - US NECK can refer to US for evaluation of neck structure or US for post thyroidectomy surveillance;
  - US LIMITED can refer to US Lump or US Ascites, etc
- Lesion descriptors: copy a line of fill-ins to get more lines (for example, if you have two lumps in a US LUMP study, you can copy and paste the descriptor line to get another similarly worded line with fill-ins/pick lists for the 2<sup>nd</sup> lesion)
- You can combine studies such as US Renal and US Postvoid Residual into one by linking the accessions, then choosing the US Renal & Postvoid Residual template, which will not invoke automatically since Powerscribe does not know they are linked

- Remember to change technique section and add “and pelvis” when linking MRI abdomen and MRI pelvis, for example.

## **Reporting Guidelines:**

### FINDINGS:

- Keep descriptions short – use short declarative phrases, lump descriptors together instead (e.g., instead of “There is a segment 4A liver lesion measuring 2 cm. This lesion has homogeneous enhancement with coarse calcifications. It is stable in size since 2012...” say “Unchanged segment 4A liver lesion measuring 2 cm with homogeneous enhancement and coarse calcifications.”)
- Avoid the observer detachment hedge: don’t say “a liver mass is not visualized” or “no enhancement is observed” - Instead say “No liver mass” or “no enhancement”. Keep the observer out of the report.
- Findings should include findings only; leave your interpretation of the findings to the impression, unless the finding is so trivial that it does not make it into the impression (e.g., leave a high density renal cyst likely representing a hemorrhagic cyst in the findings if it’s not relevant to the patient’s presentation)
- Keep findings and impression separate. For example, if a liver is “diffusely nodular in contour”, leave that in the findings. The impression would simply be “Cirrhosis.” If there is liver is “diffusely low in attenuation”, leave that in the findings and the impression would simply be “Hepatic steatosis.” Don’t put “Cirrhotic liver” or “Steatotic liver” in the findings, those are deduced from the findings.
- For findings that are either present or absent or true or false, simply state them as such. For example, say “No splenomegaly” instead of “No evidence of splenomegaly”. The evidence of splenomegaly is that the spleen is enlarged, so there is no reason to add evidence of. Similarly, say “No liver lesions” instead of “No evidence of liver lesions”, “No pneumothorax” instead of “No evidence of pneumothorax”. On the other hand, if an impression is inferred from the findings, you can add “evidence of” – a good example is “Evidence of portal hypertension... as manifested by splenomegaly and ascites”.

### IMPRESSIONS:

- Keep impression short - usually no more than 3 points and only clinically relevant items (e.g., no need to include cysts that don’t have suspicious features or incidental findings).
- Don’t start impression with a number. Instead of saying “1. 2 cm right renal mass suspicious for RCC” say “1. Right renal mass measuring 2 cm suspicious for RCC.”
- Avoid using words/phrases like “redemonstrated”, “revisualized”, “again seen”, which are not as meaningful as “unchanged”, “no significant change in”, “stable”.

### GENERAL TIPS:

- Only one space between period and start of next sentence (per American Medical Association (AMA) and Associated Press Stylebook)

- Round all numbers to at most one digit after a decimal point for cm measurements (for example, if kidney is measured as 10.85 cm on an ultrasound, report 10.9 cm) and no digits after a decimal point for mm measurements (for example, if the common bile duct measures 4.4 mm on an ultrasound, report 4 mm)
- If a finding is not significant, reporting one dimension is sufficient - cysts, fibroids, benign thyroid nodules can all be reported with a single dimension measurement

**Montage:** Search any study done in the last 5 years, advanced search allows refining parameters, use specific terms to obtain specific results

**Osirix** (Login: UCLA, password: 123321): Mac based software used for PET/CT viewing at Santa Monica, can be used to export videos of CT scans

**Powerpoint:** Insert screen clipping to save images directly into a powerpoint file, use to save images for conferences and didactics