



# *Learning the Ropes: Clinical Immersion in the First Month of Residency*

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## Goals for the First Month

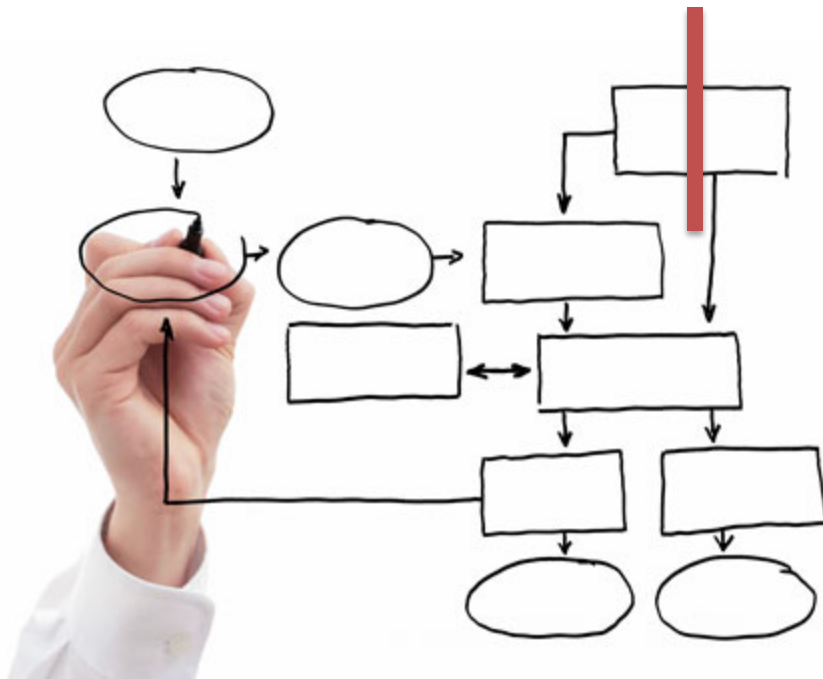
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- Didactic:
  - Equipment
  - Workflow
- Soft Skills
  - Get to know departmental staff
  - Staff gets to know resident

Mentor	Subject	Tasks
SD	Clinic Orientation	<input type="checkbox"/> Attend all orientation lectures <input type="checkbox"/> Follow three patients (H&N, breast, prostate) longitudinally from consult through treatment <input type="checkbox"/> Observe Simulation/HDR (1 week) <input type="checkbox"/> Observe Elekta (1 week) <input type="checkbox"/> Observe Tomo/Dosimetry (1 week)
	QA Orientation	<input type="checkbox"/> Attend radiation safety training. Sign-off on training topics. <input type="checkbox"/> Credential Radiation Safety read-and-sign <input type="checkbox"/> Attend engineering introduction to treatment machines <input type="checkbox"/> Attend machine operation and safety inservice <input type="checkbox"/> Observe machine warm-up and daily (morning) QAs on all treatment and simulation units: Agility, Integrity, Tomo, HDR, Gamma Knife, CT-sim. Coordinate with the appropriate therapists. <input type="checkbox"/> Complete on-line Mandatory Annual Training <input type="checkbox"/> Attend new employee orientation
	Required Reading	<input type="checkbox"/> AAPM TG109 - Code of Ethics (4 <sup>th</sup> week) <input type="checkbox"/> ASTRO Safety is No Accident (3 <sup>rd</sup> week) <input type="checkbox"/> AAPM MPPG on Supervision (2 <sup>nd</sup> week)
	Didactics	<input type="checkbox"/> Review basic principles in radiation therapy chapter in Perez & Brady <input type="checkbox"/> Review Emami et al paper & Milano et al paper Semin Radiat Oncol 17:131-140, 2007 <input type="checkbox"/> Review simulation P&Ps <input type="checkbox"/> Clinical Lectures <input type="checkbox"/> Clinical Conferences



## *Clinic Orientation: The “axial” slice of workflow*



## Clinic Orientation Week 1: Administrative

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- 2 Days of Orientation jointly with Physician Residents
  - Shared physics/RadOnc residency room
  - Establish social ties with physician residents
- 1 Day for mandatory training (HIPAA etc.)
- 1 Day for departmental training (engineering intro, linac safety, radiation safety etc.)

## Clinic Orientation Week 2: Simulation

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- Meet RTTs on simulator
- “Pretend here is your new therapy student”
- Simulation connects patients from physician to treatment
- Introduces the human aspect to the chart
- Appreciate the challenges of a good setup
- Learn about good bedside manners
- Communication between care team members

## Clinic Orientation Week 3: Elekta

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- Meet RTTs on machines
- Learn about reproducibility of setup from Sim to treatment
- Relationship between RTT and patient
- Feedback loop from machine to attending
- Start recognizing types of treatments (breast, prostate, H&N)
- Get a feel for workflow, typical issues (e.g. Monday chemo patients etc.)



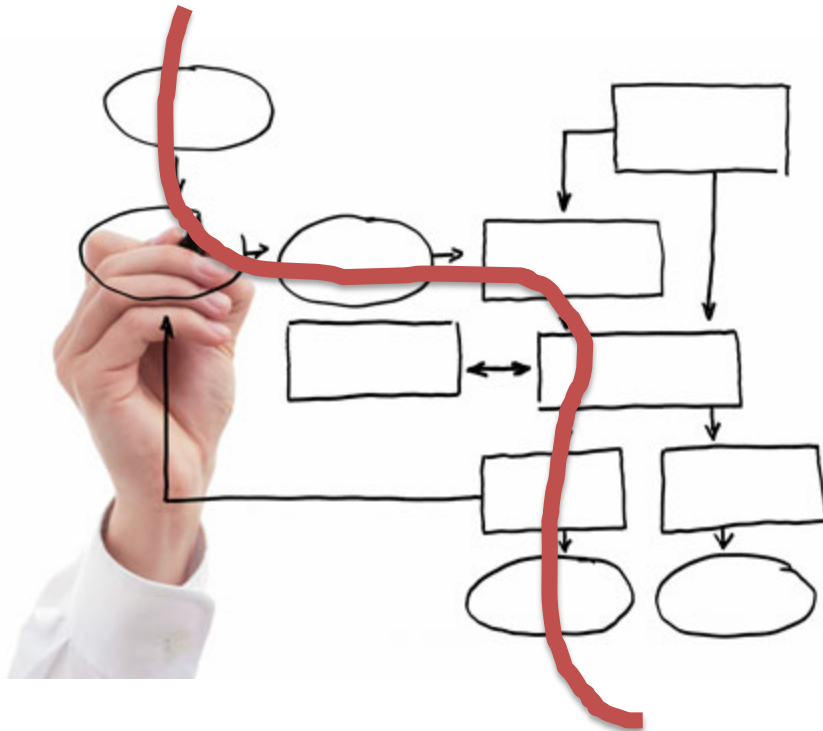


## Clinic Orientation Week 4: Tomo/Dosimetry

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- Meet Tomo RTT team
- Compare/contrast Tomo vs. Elekta workflow
- Dosimetry
  - Meet dosimetrists
  - Workflow
  - Communication between dosimetrist, resident, attending, physics

## *Clinic Orientation: The “longitudinal” slice of workflow*



## Site-Specific Clinic Rotation

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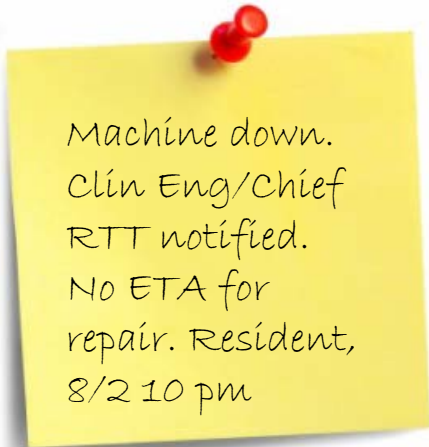
- In parallel to machine observation
- Three high-volume sites:
  - Breast
  - H&N
  - Lung
- Strengthens tie with three of the physician residents

## ***QA orientation***

## QA orientation: Daily warm-ups

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- Work with morning RTT, Clin Eng, Physics
- Why it is important to leave machines in a good state at night!
- How to communicate issues found at night and actions taken to morning warm-up



Machine down.  
Clin Eng/Chief  
RTT notified.  
No ETA for  
repair. Resident,  
8/2 10 pm



## *Other Thoughts*

## Shared Workspace Physician/Physics residents

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- Larger peer group means better social support
  - Finding your best buddy to weather the storms
  - Can de-escalate tension between the two physics residents
  - Diversity of background and experience
- Mutual understanding between professions
- Mutual teaching of didactics

