

Improving medical student perception of a career in radiology: An interactive component to the clerkship

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Disclosures

No disclosures



Introduction

- From 2008 - 2015, there was a sharp decrease in the competitiveness of Radiology as a specialty in the match and overall interest of medical students in the specialty
- A majority of schools still do not require radiology clerkship as a part of the curriculum
- Uptick in competitiveness in recent years is thought to largely be a result of increasing interest in interventional radiology.
- There is still concern about a possible relative lack of interest in diagnostic radiology.



Introduction

- We hypothesized that introducing an interactive component to the radiology clerkship would improve medical student perception of the field and as a result make more students likely to choose radiology as a career.



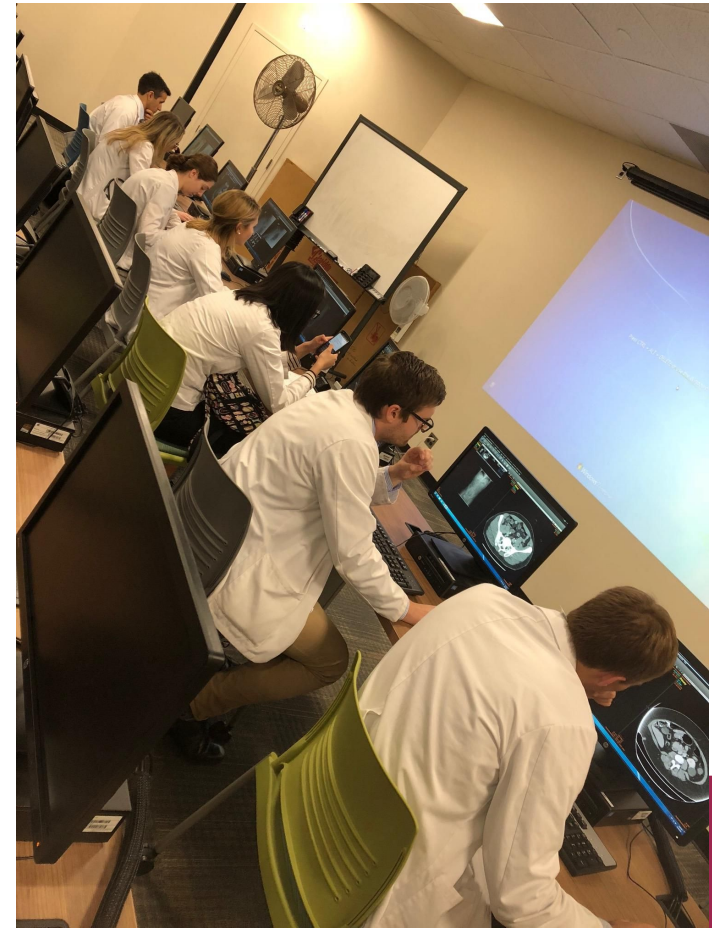
Methods and Materials

- All students in the radiology clerkship from July - December 2019 participated.
- Clerkships consisted of a daily one hour lecture and rotations shadowing through each reading room.
- **We added a computer lab experience**
 - Each student was given a USB flash drive containing 7 radiology studies and free DICOM software (RadiAnt DICOM viewer™) to review independently in our institution's library computer lab.
 - Each case came with a clinical vignette.



Methods and Materials

- The students were asked to report their pertinent findings and then to create an impression or conclusion.
 - Some follow-up questions were included (“what is the management?”, “what population is this most common in?”)
- Study set included 3 plain films, 3 CTs of the abdomen and pelvis and 1 RUQ ultrasound exam
- Each case was considered appropriate at the medical student level and featured topics covered in prior lectures during the clerkship.



Methods and Materials

- Students were allotted approximately 5 minutes per study.
- Findings from each case were then reviewed with the group by a senior resident.
- Students were then asked to complete a clerkship assessment survey.



Methods and Materials

Radiology Clerkship Survey

Radiology Clerkship Survey

Radiology Clerkship Survey

Radiology Clerkship Survey

Thanks for taking the time to fill this totally anonymous survey. It will help us improve this rotation making the content more relevant to all Medical Students, no matter what your career interests are

* Required

4. Rate the following components of the Radiology rotation

Check all that apply.

	I not only dislike this component, but it makes the clerkship worse	I did not like this component.	No opinion either way	I liked this component.	This was an excellent component and is a must for this rotation.
Independent Case Review in the computer lab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shadowing in reading room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Student only lectures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sitting in on Resident noon lectures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preparing and presenting a topic via Powerpoint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Which one component of the Radiology rotation do you feel you learned from the most?

Mark only one oval.

- Independent Case Review in the computer lab
 Shadowing in reading room
 Medical student lectures
 Sitting in on resident noon lectures
 Preparing and presenting Powerpoint presentation
 Other: _____

6. After this rotation, what is your attitude towards Diagnostic or Interventional Radiology as a possible career choice? *

Mark only one oval.

- I am MUCH more likely to consider it as a career choice.
 I am more likely to consider it as a career choice.
 My opinion is unchanged.
 I am less likely to consider it as a career choice. *Skip to question 8.*

+

7. Which one component of the Radiology rotation do you feel was most important in helping you decide whether Radiology was a possible career choice for you?

Mark only one oval.

- Independent Case Review in the computer lab
 Shadowing in the reading room
 Medical student lectures
 Sitting in on resident noon lectures
 Preparing and presenting Powerpoint presentation
 Other: _____

8. Which one component of the Radiology rotation do you feel was most important in helping you decide whether Radiology was a possible career choice for you?

Mark only one oval.

- Independent Case Review in the computer lab
 Shadowing in the reading room
 Medical student lectures
 Sitting in on resident noon lectures
 Preparing and presenting Powerpoint presentation
 Other: _____

9. Do you feel that this Radiology rotation has affected your awareness of what a typical work day for a Radiologist is like?

Mark only one oval.

- Yes, I am more aware of what a typical day for a Radiologist is like.
 I am somewhat more aware of what a typical day for a Radiologist is like.
 No, I do not feel I have increased awareness of what the typical day for a Radiologist is like even after this rotation.

10. Independent case review in the computer lab is...

Mark only one oval.

- not beneficial to overall radiology rotation experience.
 no effect on overall radiology rotation experience.
 somewhat beneficial to overall radiology rotation experience.
 very beneficial to overall radiology rotation experience.

Radiology Clerkship Survey

11. Your comments regarding the computer lab experience specifically? *

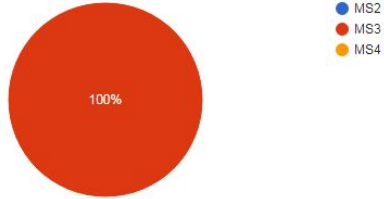
12. Any additional comments about the above questions or anything else about this rotation?



Results - Overall clerkship

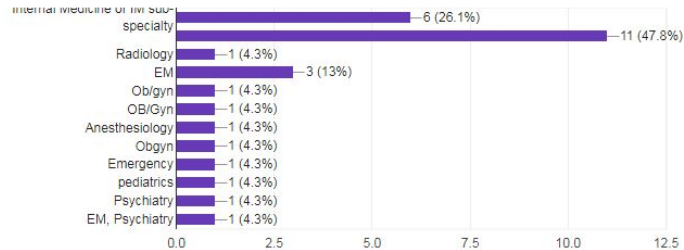
What year of medical school are you in?

23 responses



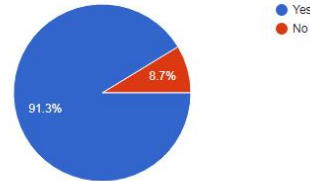
What specialty were you interested in applying to BEFORE this rotation?
Click all that apply and/or fill in other.

23 responses



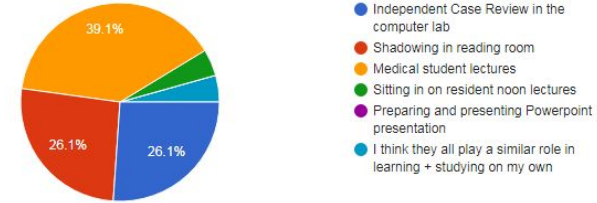
Was this Radiology rotation your first formal Radiology experience?

23 responses



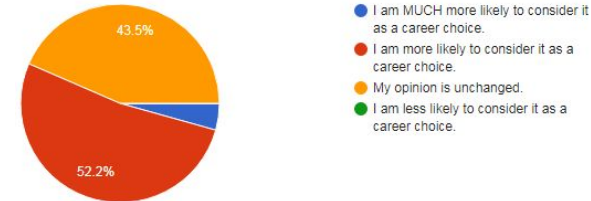
Which one component of the Radiology rotation do you feel you learned from the most?

23 responses



After this rotation, what is your attitude towards Diagnostic or Interventional Radiology as a possible career choice?

23 responses



Results - Specific to the computer lab experience

Your comments regarding the computer lab experience specifically?

19 responses

Positive experience

Great simulation experience!

Do it in the morning, (or set aside 1.5-2 hours for it instead of just 1 hour at the end of the day...) we ran out of time and could definitely have gotten even more out of it! It was awesome though: I got to feel like a real detective radiologist in a non-graded low stress environment that I thought was great for learning.

It was really useful and one of the best ways to learn the material. WOULD have enjoyed more sessions of this throughout the day

It was a great experience. It should be done more often

Awesome!

Good experience

Having a few more of them would be helpful. Even a take home type of thing to spend some time going through first would be super helpful with a timed version later on like we did today.

This session was very helpful. In an ideal world we would do this several times during the clerkship.

I wish we did it at least 2 times in the rotation. It was very helpful.

this experience helped simulate what it would be like as a resident either in radiology or if we are opening up imaging before official reads.

Good exercise but time limit on each case was not ideal

It was illustrative of how much radiology I have left to learn

It makes me feel like the boss.

It's really great

There was 2 questions with the same wording + and -

Was nice to try reading films by ourselves and have it discussed with residents afterward.

review likely helpful

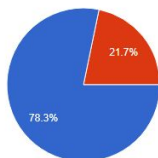
Best part

Independent case review in the computer lab is...

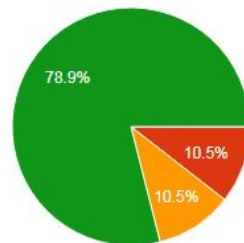
19 responses

Do you feel that this Radiology rotation has affected your awareness of what a typical work day for a Radiologist is like?

23 responses



- Yes, I am more aware of what a typical day for a Radiologist is like.
- I am somewhat more aware of what a typical day for a Radiologist is like.
- No, I do not feel I have increased awareness of what the typical day for a Radiologist is like even after this rotation.



- not beneficial to overall radiology rotation experience.
- no effect on overall radiology rotation experience.
- somewhat beneficial to overall radiology rotation experience.
- very beneficial to overall radiology rotation experience.

Discussion

- Adding an interactive component to the Radiology clerkship is essential to giving students a more realistic experience during their rotation
- It allows students to independently “practice” as they do in other rotations.
- Active participation needs to replace the predominance of passive learning in most radiology clerkships.



Conclusion

- Adding an interactive and independent case review component to the radiology clerkship can improve the clerkship experience for little to no cost and time.
 - One resident or attending for one hour - same as most standard lectures
 - Using free DICOM software, cost = \$0
 - With better clerkship experiences, medical student perception of radiology can be improved and more students will be encouraged to choose a career in diagnostic radiology.
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