Developing a Pilot Radiology Curriculum catered to the Yale University School of Medicine Primary Care Clerkship (PCC)

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BACKGROUND

• Knowledge of medical radiation safety and evidence based imaging (EBI) guidelines is essential for primary care physicians to appropriately order imaging studies.
• Previous studies have demonstrated a lack of understanding amongst medical students with regards to radiation safety and EBI guidelines
• Currently, medical students at Yale have no formal exposure to these topics
• There is an opportunity to understand and address these important gaps in knowledge.

OBJECTIVE

Assess the impact of implementing a pilot radiology curriculum, consisting of topics on radiation safety and EBI guidelines, for senior medical students rotating through their PCC.

METHODS

• Radiation safety and EBI guidelines workshops were created for this pilot project.

<table>
<thead>
<tr>
<th>RADIATION SAFETY</th>
<th>EBI GUIDELINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-TEST</td>
<td>PRE-TEST</td>
</tr>
<tr>
<td>5 questions on radiation safety</td>
<td>10 case scenarios requiring the students to order the next best imaging step</td>
</tr>
<tr>
<td>4 additional survey questions</td>
<td>Guidelines were adapted from the American College of Radiology (ACR) appropriateness criteria</td>
</tr>
<tr>
<td>POST-TEST: 32 responses</td>
<td>POST-TEST: 31 responses</td>
</tr>
<tr>
<td>Same 5 questions on radiation safety</td>
<td>Same 10 clinical case scenarios</td>
</tr>
<tr>
<td>4 additional survey questions</td>
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</tr>
</tbody>
</table>

INTERVENTION: WORKSHOP: 72 students

POST-SURVEY RESULTS

EBI PRE-TEST SURVEY RESULTS

I am aware of the American College of Radiology (ACR) appropriate criteria.

How important of a consideration is radiation exposure when ordering radiology studies on your patient?

1. Very important
2. Important
3. Neutral
4. Not important
5. Not important

My ordering habits will change after receiving a course on medical radiation safety.

I have consulted the ACR appropriate criteria while ordering imaging studies for my patient.

EBI GUIDELINES TEST RESULTS

I am aware of the American College of Radiology (ACR) appropriate criteria:

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

How often do you consider radiation exposure when ordering a radiology study on your patient?

1. Always
2. Sometimes
3. Occasionally
4. Never

Radiation Safety Test Results

% of Correct Responses to Radiation Questions

Question 1 Question 2* Question 3* Question 4 Question 5*

PRE-TEST POST-TEST

79 51 53 29 57
84 94 58 16 81

* Statistically significant with P < 0.05

EBI GUIDELINES TEST RESULTS

% of correct answers to the questions “Which of the following studies would you order next?”

Question 1 Question 2 Question 3 Question 4 Question 5

PRE-TEST POST-TEST

94 42 84 2 44
94 42 70 6 44
61 70 36 2 44
42 70 36 2 44
94 58 36 2 44

* Statistically significant with P < 0.05

REFERENCES


ACKNOWLEDGEMENTS

Sincere thanks to Peter Ellis, MD, MPH and Rob Goodman, MD with their assistance in developing this project. I would also like to thank Lawrence Stab, PhD for his assistance with the statistical analysis, as well as Janet Hafler Ed. D for all her guidance. Last, but not least, I would like to thank my 2014-2015 colleagues in the Medical Education Fellowship for all their patience, feedback and contributions throughout this last year.