

Improving the Efficiency of Patient Care in Radiology Through an Educational Presentation for Surgical Interns

UC San Diego

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Purpose

- To improve patient care by improving communication between radiology and surgical departments* through an educational presentation

*General surgery, Neurosurgery, Otorhinolaryngology, Orthopedics and Urology

Competencies

Educational presentation outlines

- How to request the appropriate examination
- Resources for facilitating interdepartmental communication
- Institutional policies regarding contrast material administration and associated allergic prophylaxis

Methods

- 54 surgical interns within the first month of surgical intern year (2014-2016) at our institution
- A 12 question quiz was administered covering the three competencies (some of the questions covered more than a single competency):
 - *Requesting the appropriate examination (n=6)*
 - *Resources for facilitating interdepartmental communication (n=3)*
 - *Institutional policies regarding contrast administration (n=3)*

Educational presentation

- 40 minute educational presentation given by radiology residents covering the three competencies

INTRODUCTION TO UCSD RADIOLOGY
FOR SURGICAL INTERNS
2016-2017
ORIENTATION 6.30.16



Requesting the appropriate examination

- Multiple questions addressing the appropriate study for common ED/surgical diagnoses including
 - Small bowel obstruction
 - Acute appendicitis
 - Acute diverticulitis
 - Pulmonary embolism
 - Anastomotic leaks

Interdepartmental communication

- Screenshots shown of the department website



Weekends and Holidays at UCSD

- How to read it
- How to read it
- How to request important

Who's on call

Who's on call: Sat, June 25, 2016 (as of 8:57pm)

Service	Name	Training	Contact
Chest	Brunsing	R2	[Contact]
Neuro	Booker	R1	[Contact]
Body	Sheth	R2	[Contact]
ER PM	Smith	R2	[Contact]
Night Float	Horowitz	R2	[Contact]

Contact radres.webmaster@ucsd.edu if you have questions. Schedule last updated: Jun 15, 10:47

Section pagers

	Weekends/holidays 7am - 5pm	Weekdays 5pm - 8am	Weekends/holidays 5pm - 7am
Body	8734	General	5063
Bone	7867	ED/STAT	see Emergency Rad Res above
Chest	7750	Neurorad fellow	see schedule
Neuro	8788	Body rad fellow	see schedule

Contrast policies

- Screenshots of how to access to the institution department



Allergic Reaction Prophylaxis

UCSD

- > ONLY IF ANAPHYLAXIS TO CONTRAST MEDIA
- > SEVERE ASTHMATICS WITH SOB, WHEEZING

VA

- > ANY REACTION TO CONTRAST MEDICATION
- > ANAPHYLAXIS TO ANY AGENT

- Brief overview of nephrotic

	Medication	Dose	Time prior to injection
Steroid	Prednisone	50 mg po	13hr, 7hr, 1 hr
		40 mg po	12 hr, 2 hr
	Hydrocortisone	200 mg iv	6hr, 2hr
Antihistamine	Diphenhydramine	50 mg po / iv	1 hr
		50 mg po	2 hr

Doses in blue represent PO doses at the VA; IV doses are identical to those at UCSD

Post-presentation quiz

- Post-session quiz was used to assess the performance of the educational presentation in fulfilling the objectives of the presentation
- The number of correct answers was tabulated before and after the educational presentation

Methods

- Total number of possible correct responses referred to the total number of respondents multiplied by the number of questions addressing the competency
- Number of correct answers (both pre & post test) were divided by total number of possible correct responses to obtain percentage of correct answers for each competency
- Participants were asked to evaluate the sessions and give suggestions

Results

- The percentage of correct answers for the three competencies ranged from 29.0% to 58.1% (average 41.5%) before the educational presentation
- For all competencies the percentage of correct answers increased after the educational presentation with combined improvement doubling from **41.5% → 85.9%**

Results

- Percentage of correct answers for appropriate exam ordering and contrast media & allergy premedication competencies increased from **37.3 → 84.3%** & from **29.0 % → 91.4%** respectively
- Interdepartmental communication competency on the other hand demonstrated mild increase in percentage of correct answers from **58.1 → 81.9%**

Results

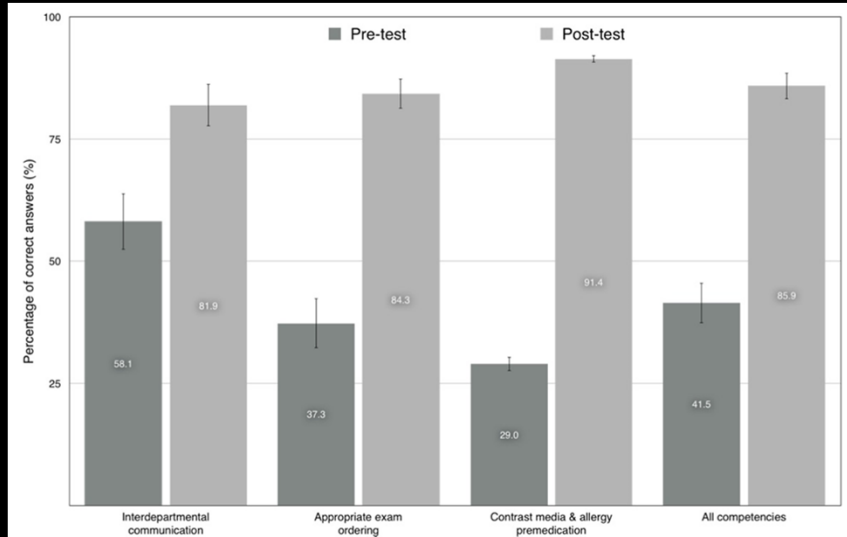
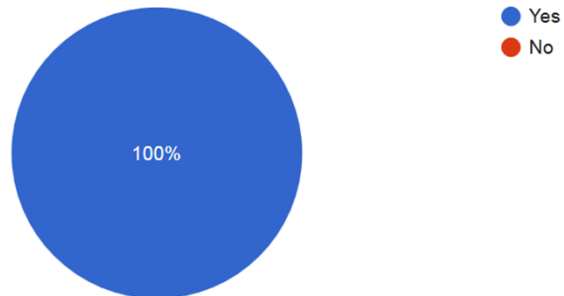


Figure shows comparative data before and after the educational presentation for each competency. Standard deviations are shown as error bars.

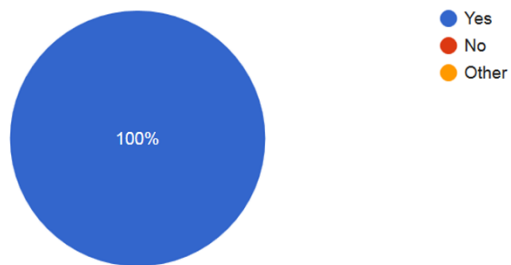
Feedback on presentation

Was this session useful? (3 responses)



Feedback on presentation

Do you think this session was useful enough to repeat next year? (3 responses)



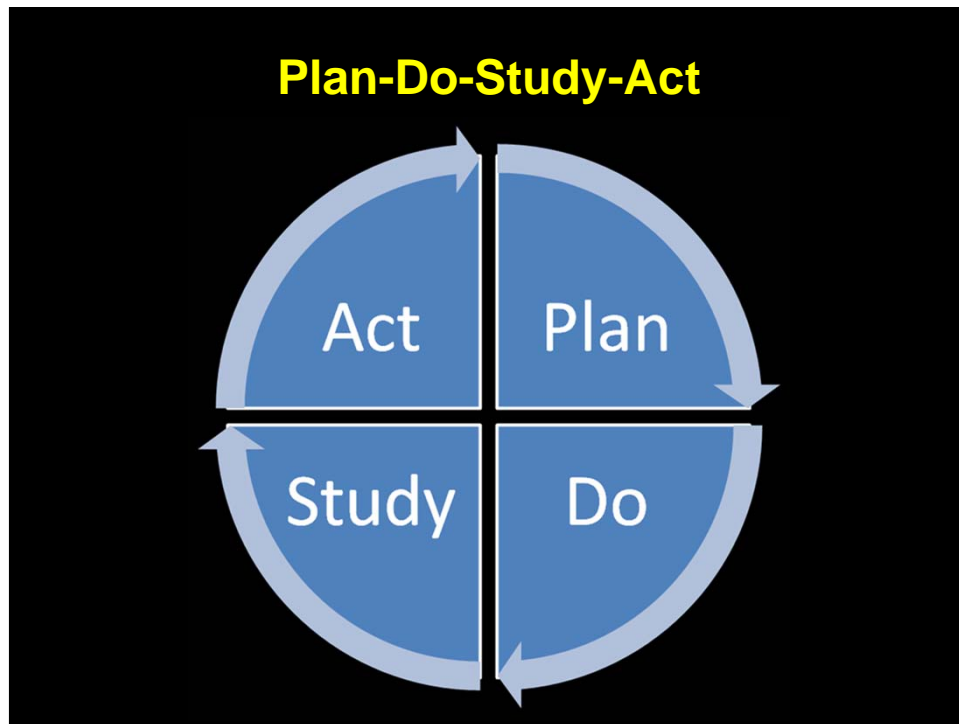
Feedback on presentation

Is there anything you wanted to be covered? Anything you wished had been covered better/differently?

(2 responses)

No

How to physically find various reading rooms in hospital if we want to review studies with radiologist



Plan-Do-Study-Act

- Improved knowledge of radiology examinations and procedures through an educational session
- Review of important pre-procedural nephrotoxicity and allergy prophylaxis information
- 100% of respondents found the session useful; their feedback allows us to improve future sessions

Future Goals

- 6 month follow up survey to demonstrate retention of clinical and communication knowledge
- Improved system to acquire feedback not only from the surgical colleagues but ALSO from radiology co-residents and fellows
- Boost interdepartmental communication competency by including more relevant information based on feedback from both surgical and radiology teams

Questions/Comments ?

Feel free to email us at
amkhurana@ucsd.edu/
spnarayan@ucsd.edu OR
visit us at the CME discussion
lunch hour on 11/30/16 from
12.15 to 12.45PM.