



ASSOCIATION OF RESIDENTS IN RADIATION ONCOLOGY

INNOVATE, COLLABORATE: TRANSFORM



ASTRO'S 61ST ANNUAL MEETING

September 15-18, 2019

McCormick Place | Chicago, Illinois

*Assessment of Lymphoma and Other
Hematologic Malignancies Training Needs
Amongst Radiation Oncology Residents*

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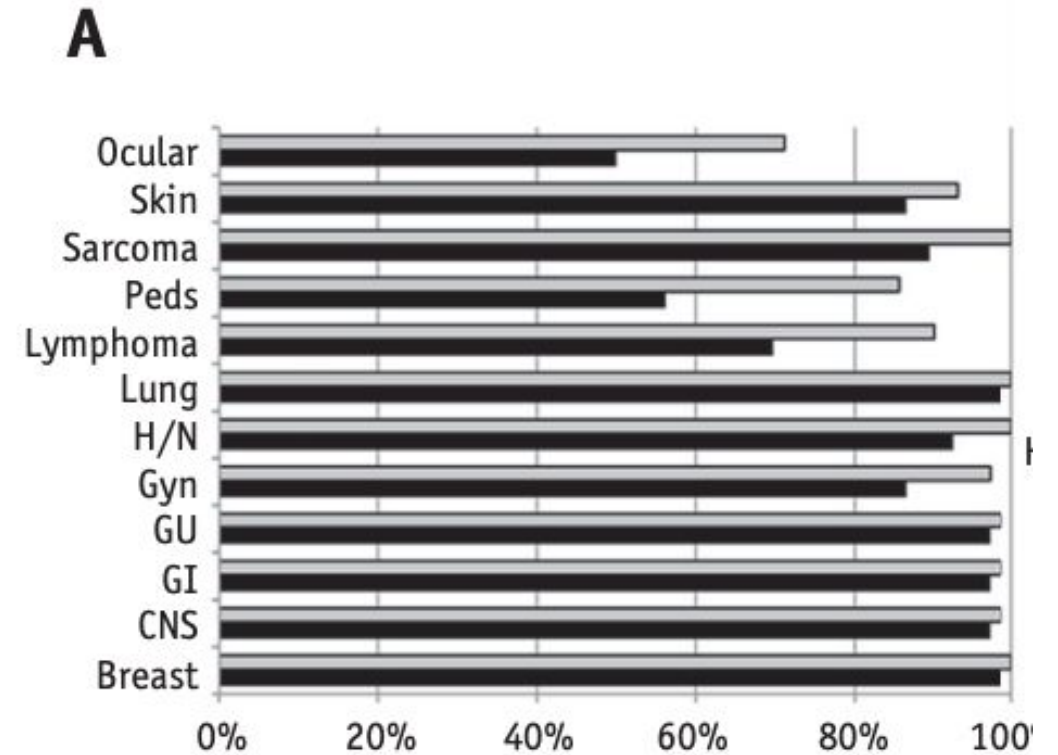
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Objectives

- Review training and exposure in hematologic malignancies for Radiation Oncology (RO) residents
- Review resident training comfort level in treating hematologic malignancies
- Future goals and options for Rad Onc resident training in hematologic malignancies
 - Mobilize the Heme Rad Onc Community

Background

- Use of radiation therapy in the management of hematologic malignancies is heterogeneous
- Resident comfort is unknown:
 - 2013-2014, **30.3%** of chief residents reported **no or inadequate** level of exposure for lymphoma malignancies
 - 2016-2019, ARRO Chief survey revealed **24% received adequate lymphoma** training but more experience would be desirable**



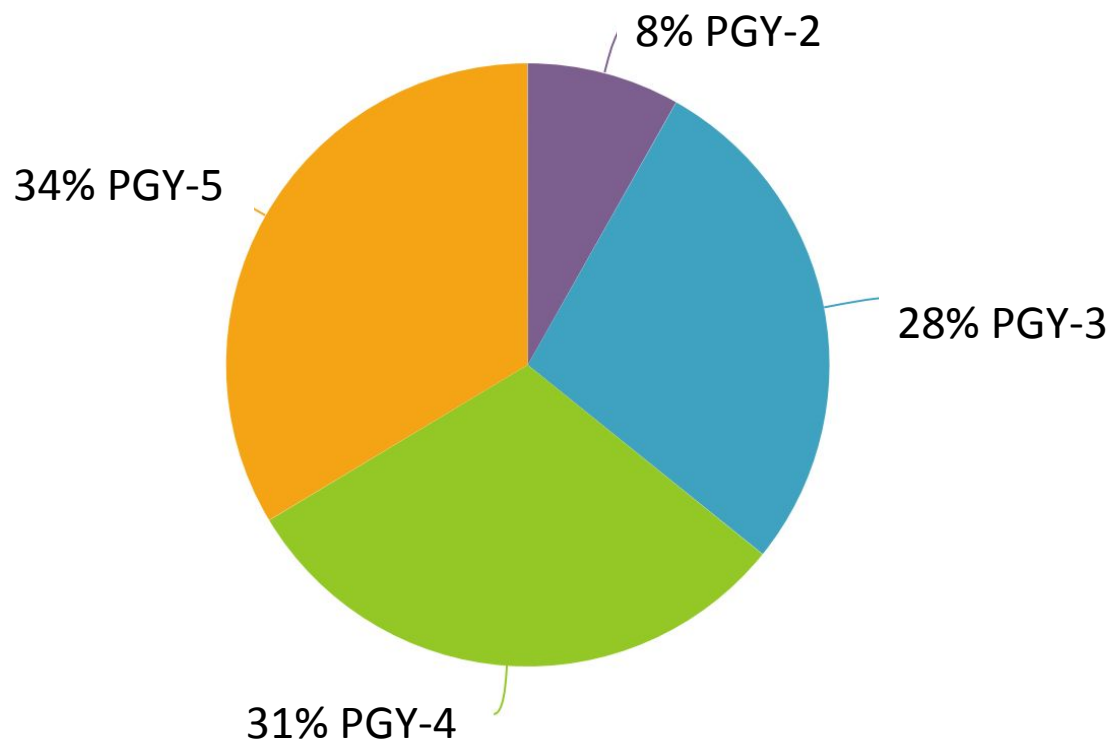
Materials/Methods

- RO residents (PGY2-5) in the ARRO email database (n=572) sent anonymous survey
- Questions were binary, Likert-type scale, and multiple choice

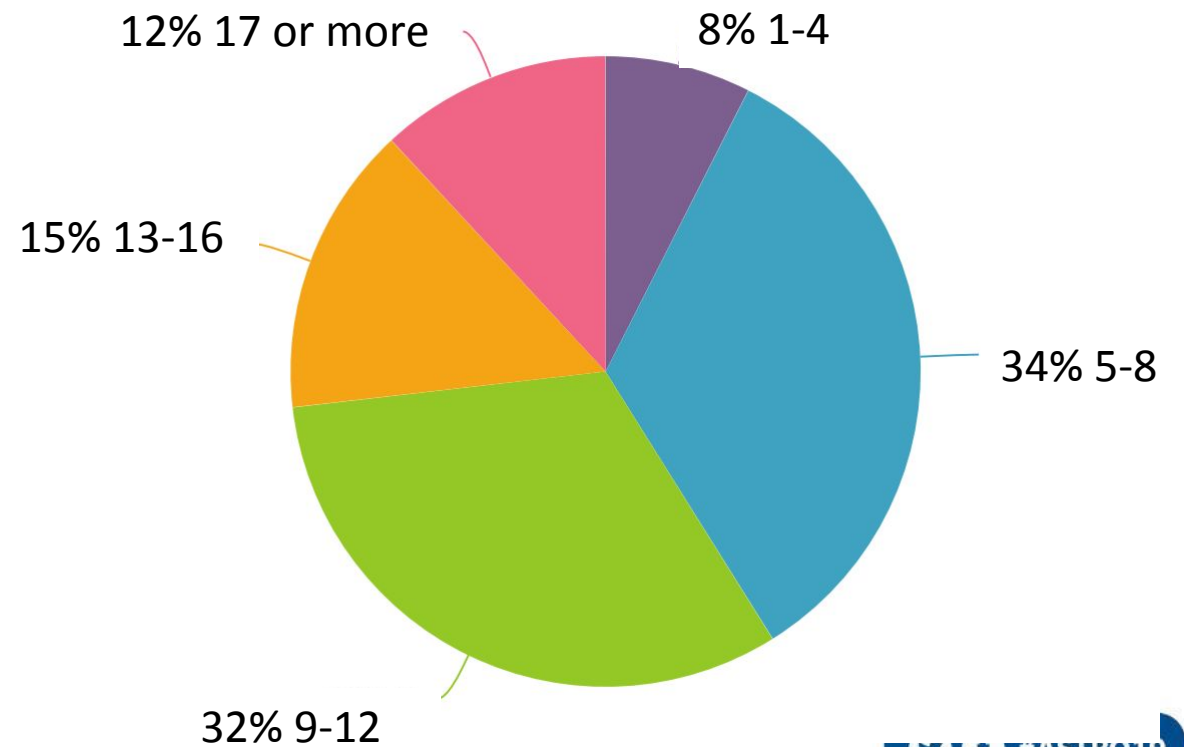
Results/Outcomes

- 134/572 residents completed the survey (23% response rate)

Majority responses from PGY4-5: 65%



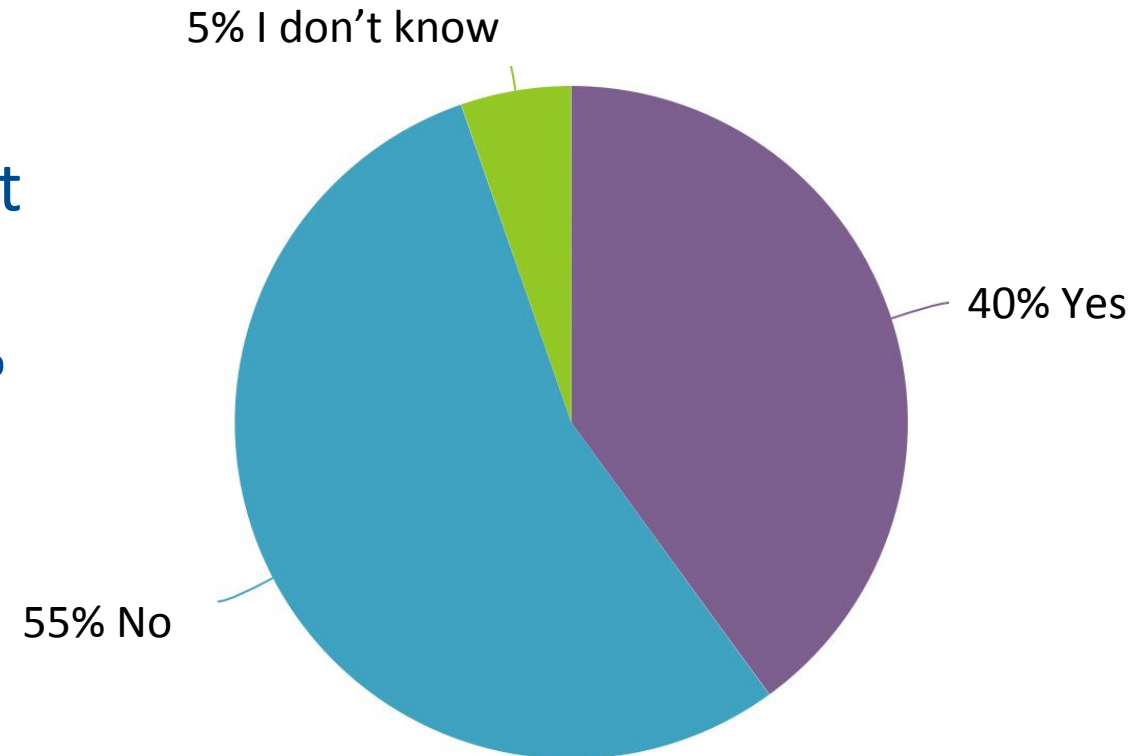
Majority from programs >5 residents: 92%



Rotation Length and Focus

- 84% had faculty who specialize in hematologic malignancies
- 71% have a hematologic rotation, most common > 8 weeks long
 - Only 40% had a dedicated rotation (>50% heme patients)

>50% Hematologic Patients Seen

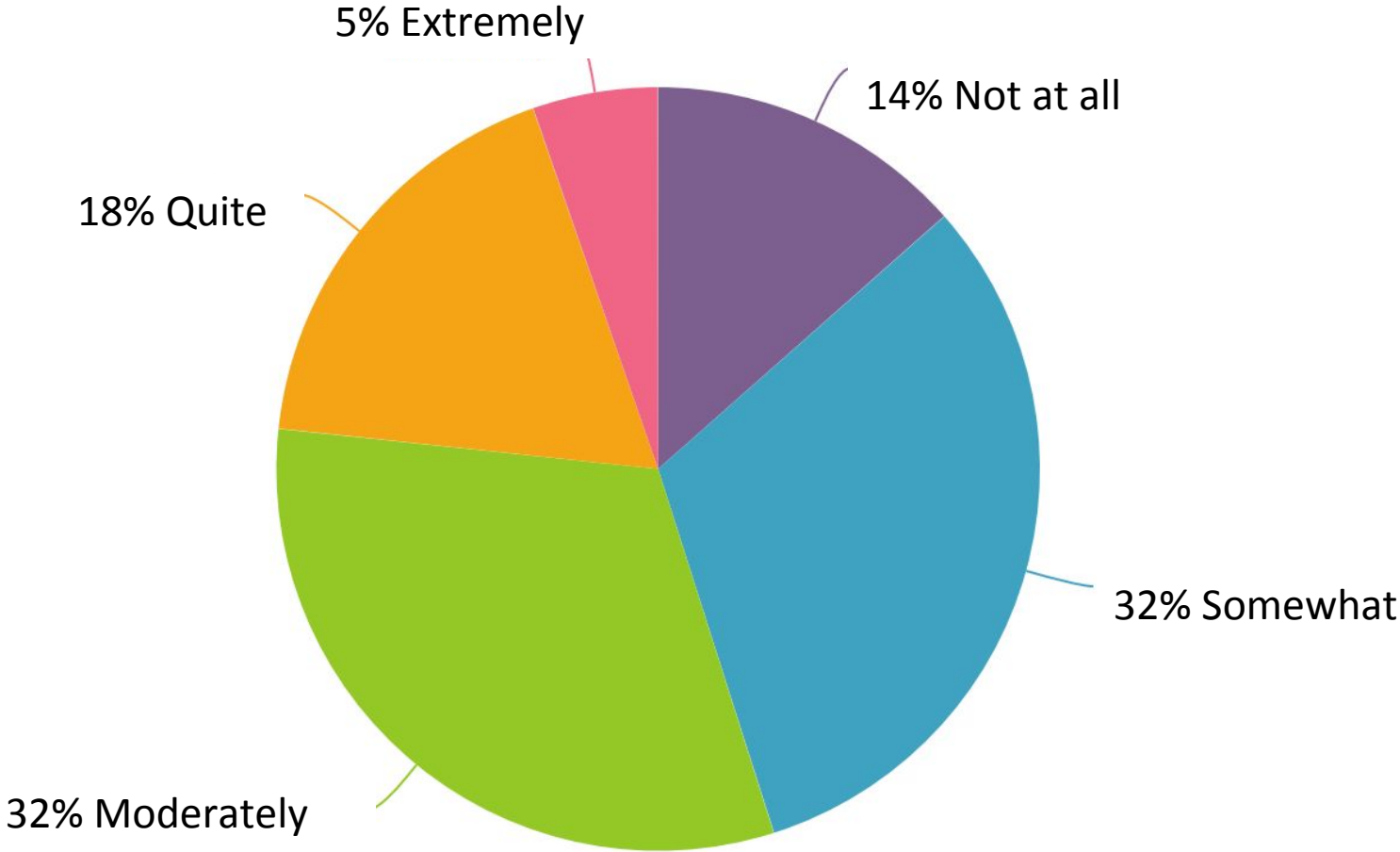


Patient Population

- Resident reported number of cases

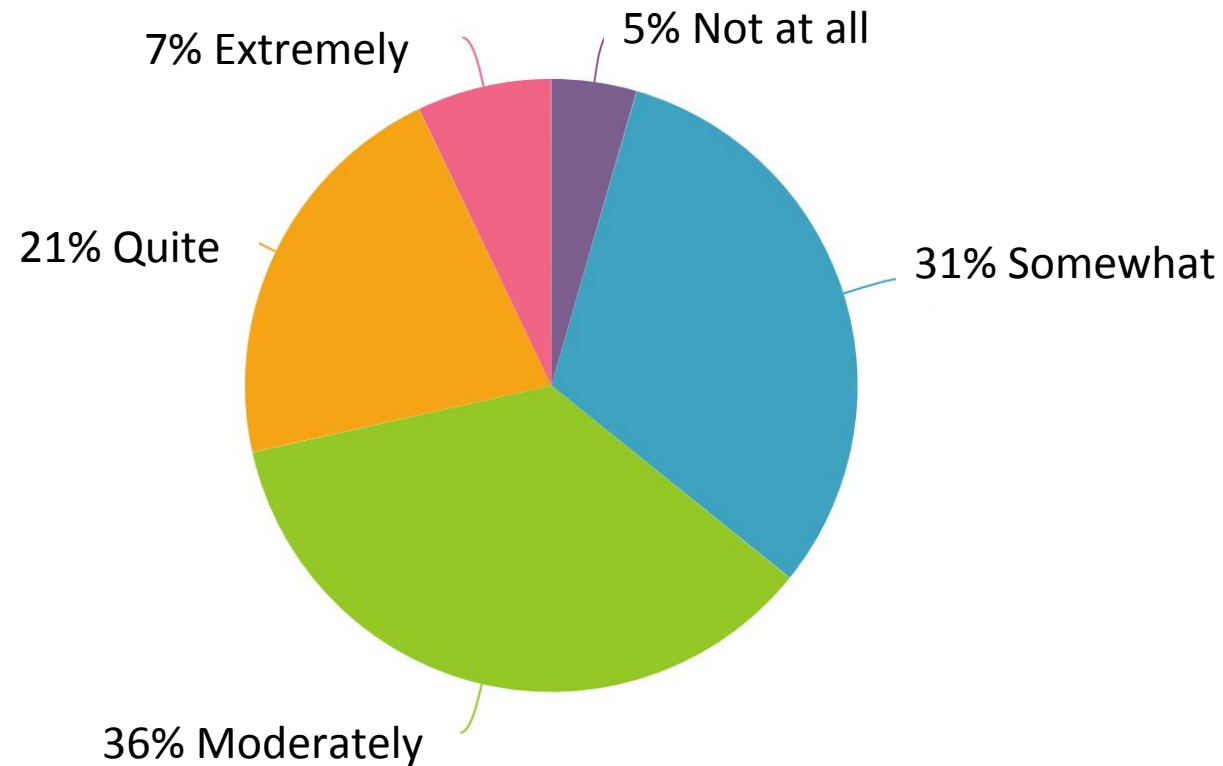
	0	1-3	4-6	7-10	>10
Hodgkin lymphoma					
Count	6	47	30	17	12
Row %	5.4%	42.0%	26.8%	15.2%	10.7%
Non-Hodgkin lymphoma					
Count	2	17	34	21	38
Row %	1.8%	15.2%	30.4%	18.8%	33.9%
Multiple Myeloma					
Count	1	19	28	27	37
Row %	0.9%	17.0%	25.0%	24.1%	33.0%
Leukemia (adult)					
Count	22	38	24	16	12
Row %	19.6%	33.9%	21.4%	14.3%	10.7%
Cutaneous lymphoma					
Count	8	38	18	23	25
Row %	7.1%	33.9%	16.1%	20.5%	22.3%

Advocating in Tumor Board: How Comfortable Would Residents Be?



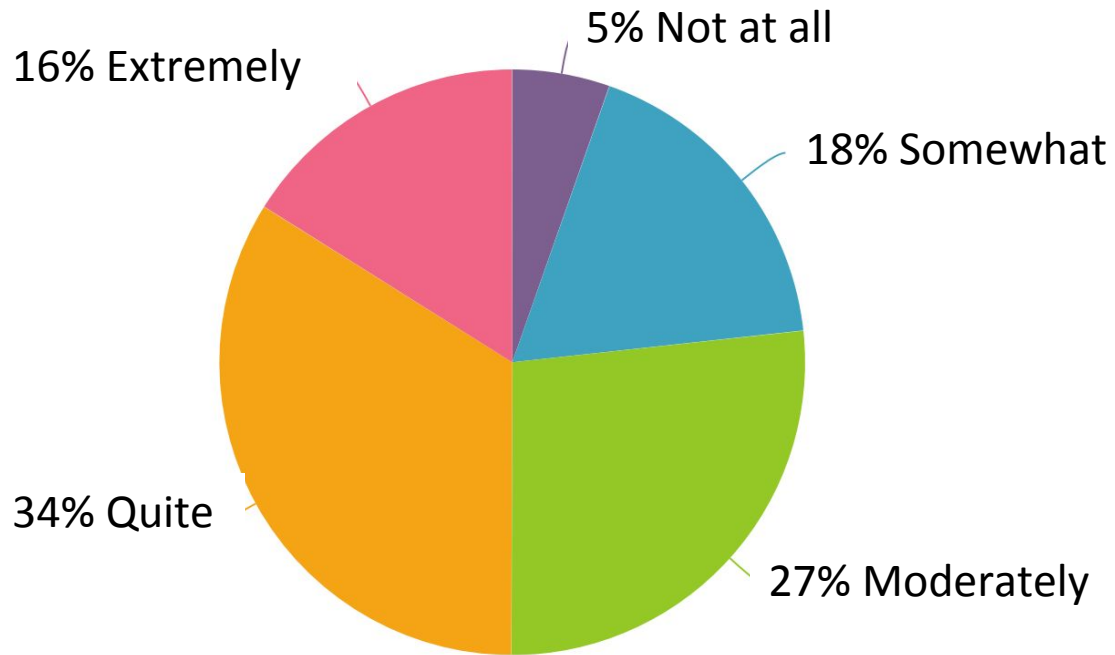
Clinical Decisions

- Making clinical decisions once referred

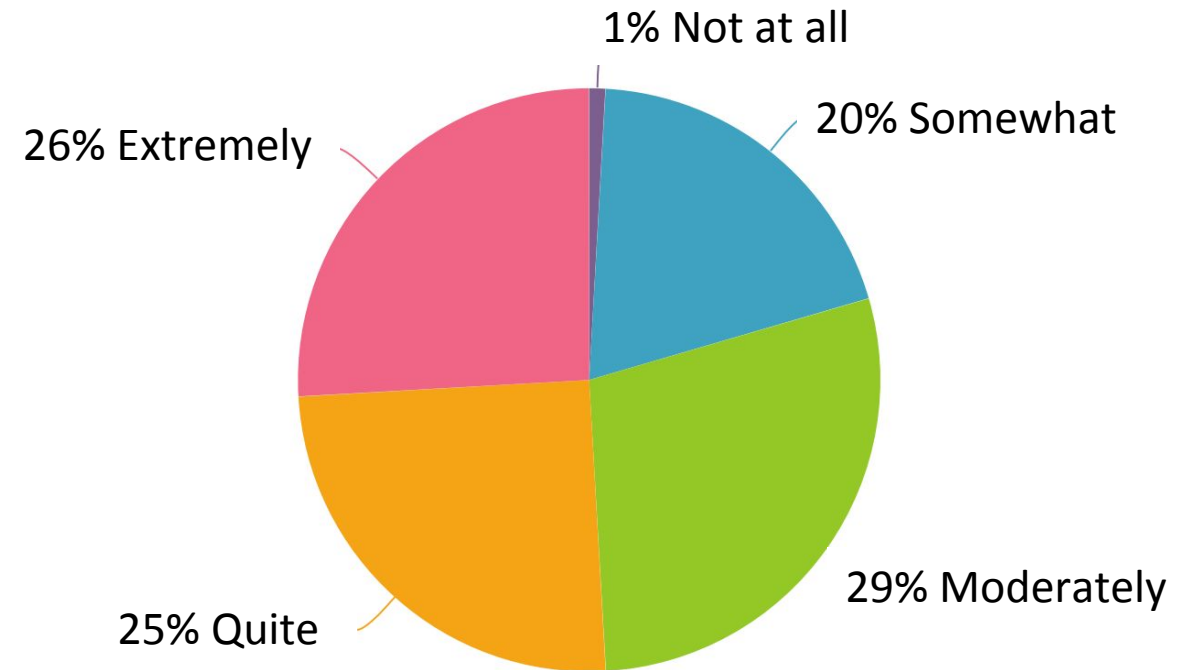


Comfort with Contouring and PET/CT

Contouring ISRT



Incorporating PET/CT for treatment

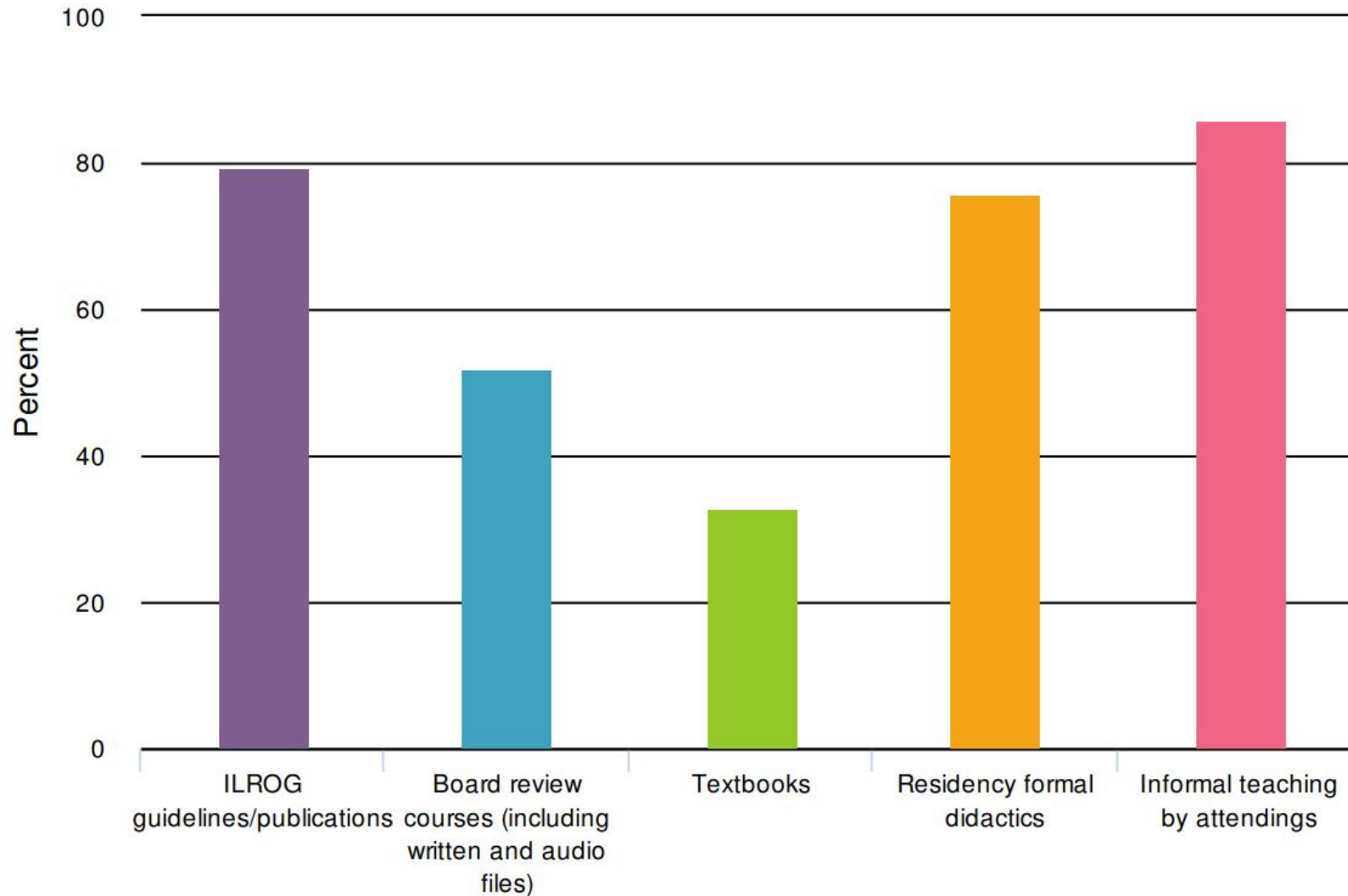


Specialized Treatment Techniques

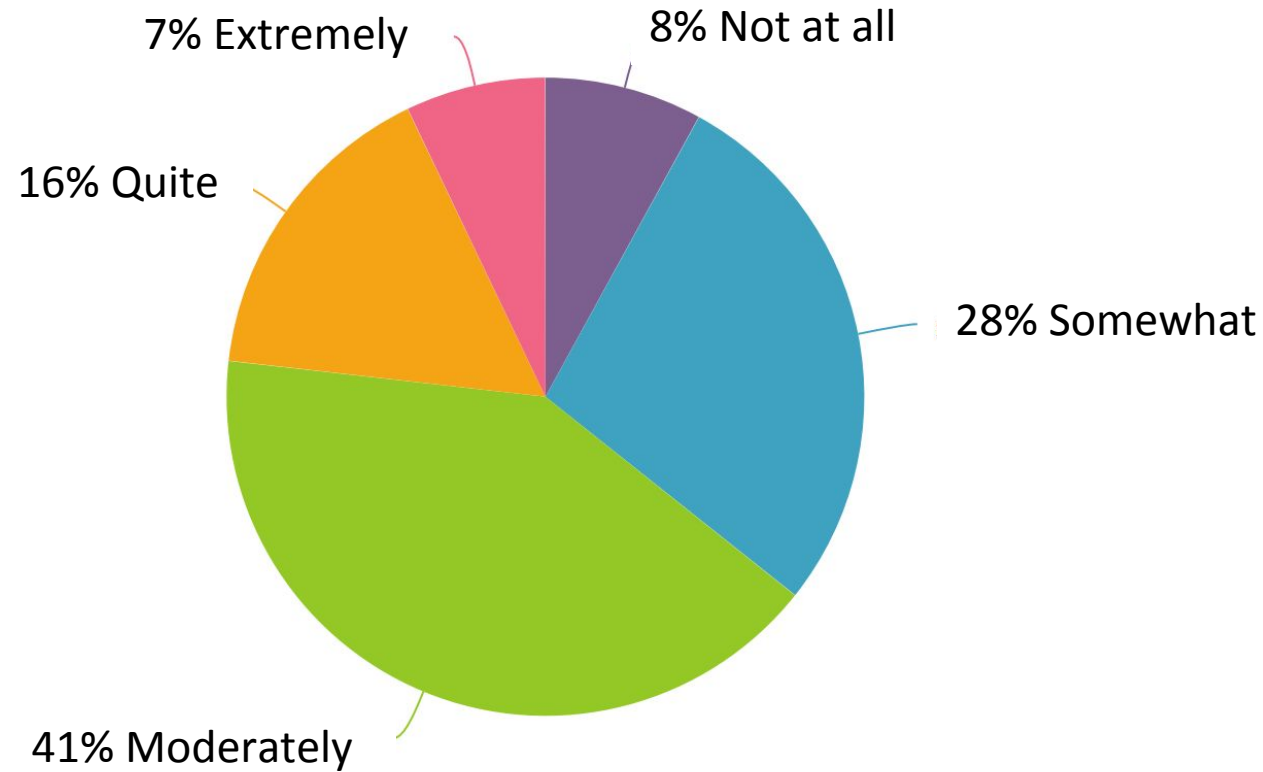
- Resident reported cases in specialized treatment techniques

	0	1-3	4-6	7-10	>10
Breath hold treatment for mediastinal lymphoma Count Row %	37 33.0%	31 27.7%	22 19.6%	10 8.9%	12 10.7%
Adult craniospinal irradiation (CSI) Count Row %	31 27.7%	62 55.4%	11 9.8%	5 4.5%	3 2.7%
Total skin irradiation (TSI) /Total skin electron beam therapy (TSEB) Count Row %	44 39.3%	24 21.4%	26 23.2%	9 8.0%	9 8.0%
Adult total body irradiation (TBI) Count Row %	12 10.7%	24 21.4%	30 26.8%	12 10.7%	34 30.4%
Proton therapy Count Row %	68 60.7%	4 3.6%	4 3.6%	6 5.4%	30 26.8%

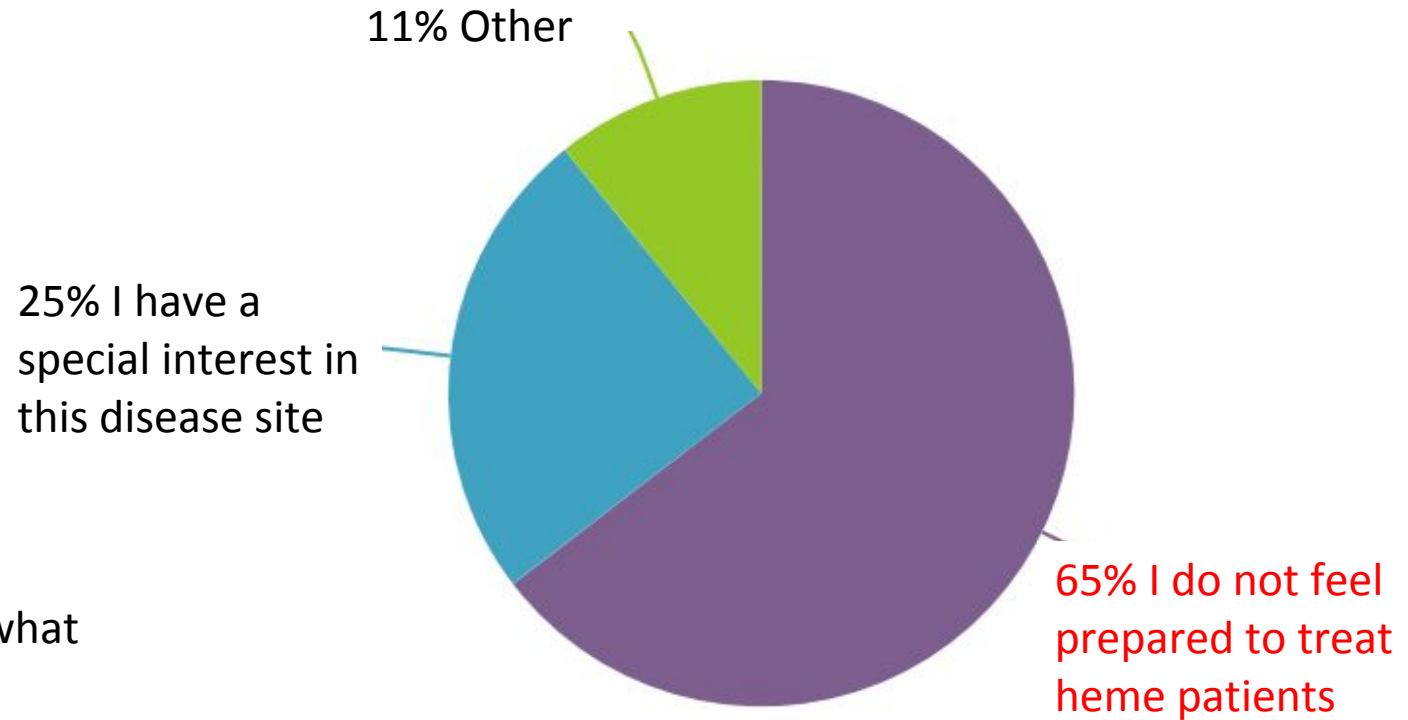
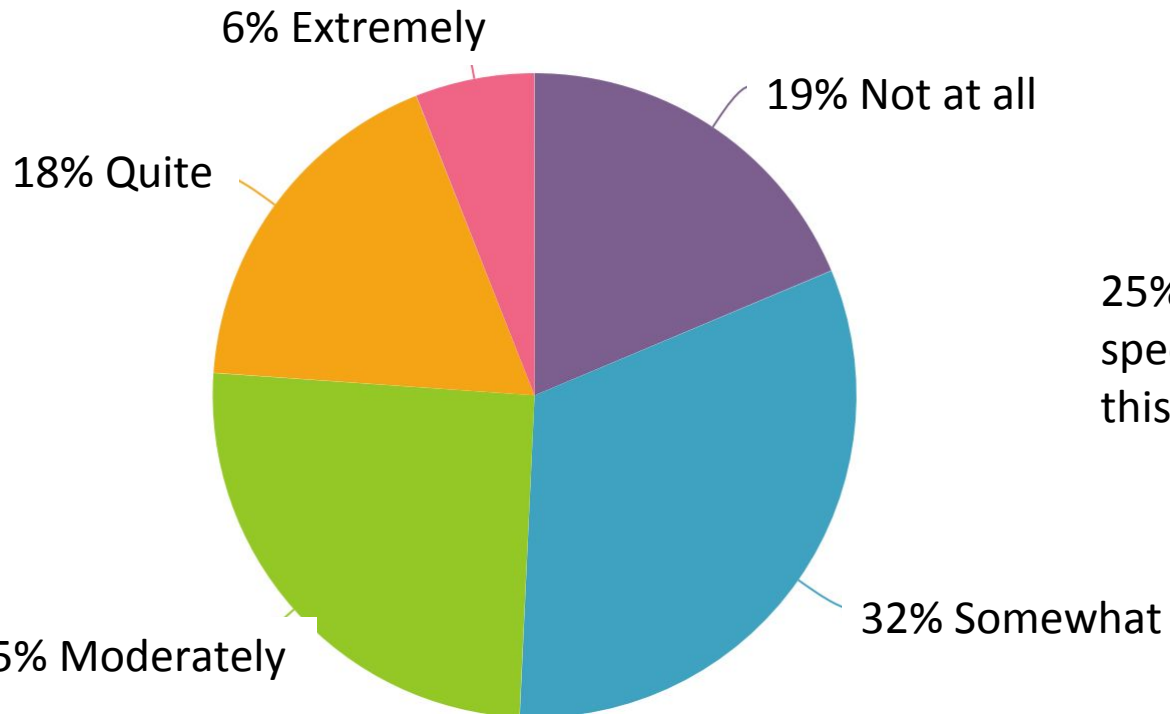
Resources



Overall Comfort to Treat Heme Malignancies



Formal Away Elective Interest and Why?



New from



Away elective rotation for radiation oncology residents

Gain more clinical and technical experience with managing patients with hematologic malignancies

Visit

www.ILROG.com/resident-elective for more information



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Conclusions

- There is a need for hematologic malignancy training
 - In fundamental techniques:
 - Breath hold and Contouring training deficiencies
- <25% of trainees feel “quite” prepared to treat heme patients
- One way to address these deficiencies is to create a dedicated heme electives
 - Select programs or hands on online educational activities

Acknowledgements

- ILROG Educational Steering Committee
- ARRO Executive Committee

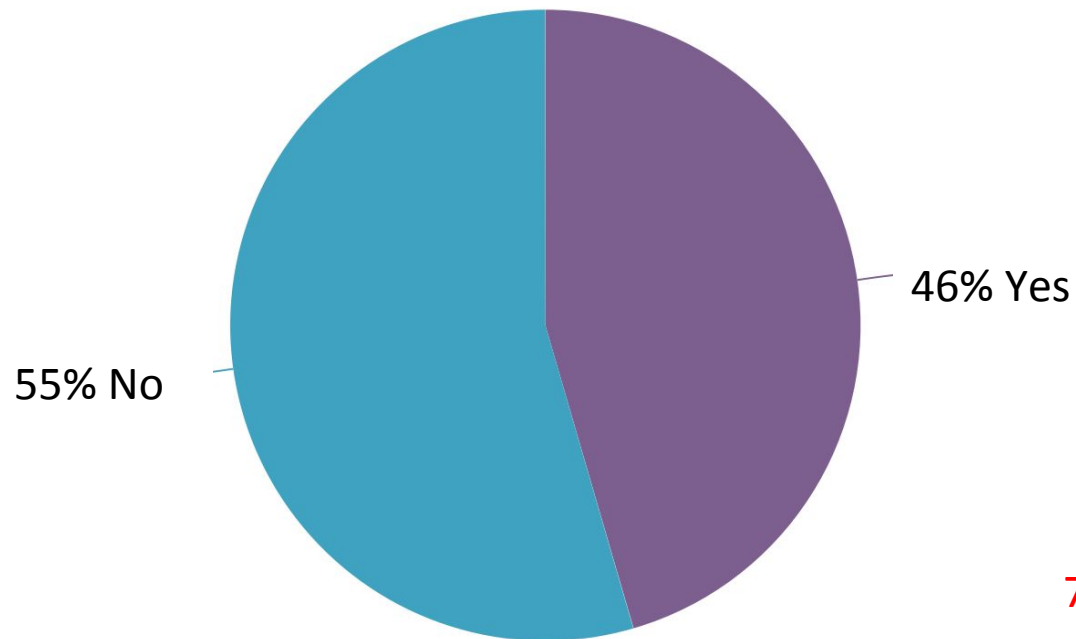
- Jillian Gunther, MD PhD
- John Plastaras MD, PhD
- Joanna Yang MD, MPH
- Joachim Yahalom MD
- Chelsea Pinnix MD, PhD
- Bouthaina Dabaja MD
- Neha Vapiwala MD
- Bradford Hoppe MD, MPH
- Yolanda Tseng MD
- Rahul Parikh MD



- ACGME:
 - Requirement for rotation in specific disease site will likely be moving forward
 - Consideration of specialty specific minimums (still under review)
- Could partner with smaller programs to offer this elective

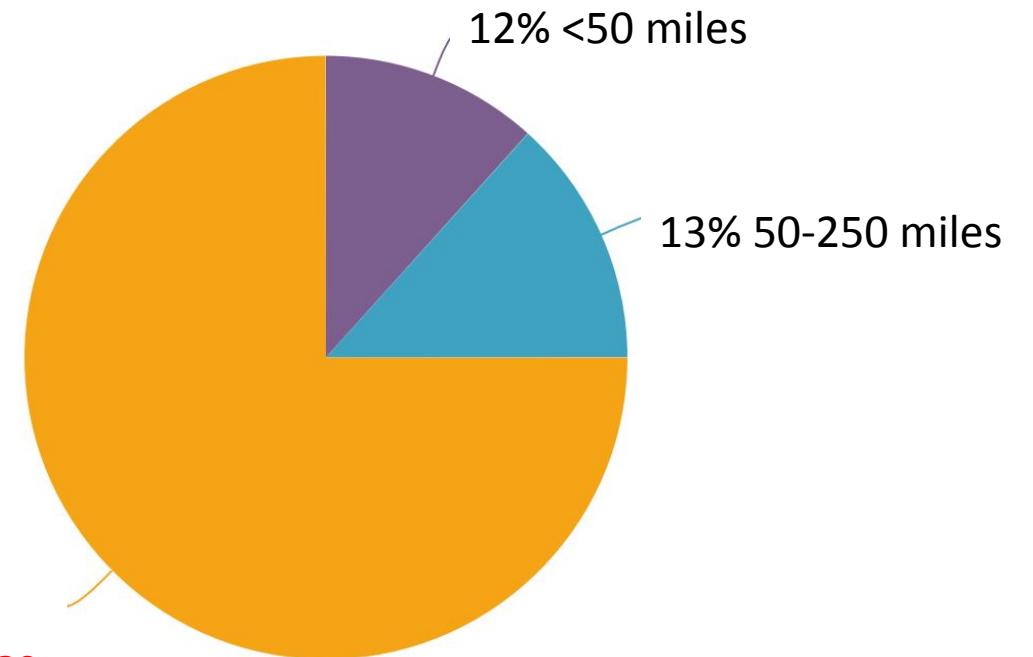
Travel for an Away Elective

• Would you travel?



How far?

75% Does not matter as long as there is housing



Future of Education in Hematologic Malignancies

Item	Overall Rank	Rank Distribution
Hands-on modules to teach contouring for lymphoma (e.g. involved site RT)	1	
Oral examination to test your ability to handle heme cases	2	
Lecture(s) on hematologic malignancies (e.g. Hodgkin disease, leukemia, multiple myeloma)	3	
Instruction on specialized simulation and treatment techniques (e.g. mediastinal breath hold cases)	4	
Instruction by physics on specialized treatment techniques (TBI, TSEB)	5	
Observation of multidisciplinary tumor boards	6	
Guided reading list	7	