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# Game On! Email-Facilitated Case Competition as a Format for High-Value Care Education

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# Disclosures and Acknowledgements

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I have no financial conflicts of interest to disclose.

Our Team:

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# Background

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- **Overdiagnosis and overtreatment** contribute to high costs and potential harm to patients.
- One strategy to reduce costs is to **train physicians to deliver high-value care (HVC)**.
- ACGME also mandates residents incorporate cost awareness into patient care.
- **No standardized curricula exist to best teach residents how to deliver HVC.**

# Objective

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To develop, implement, and evaluate a longitudinal, email-facilitated HVC curriculum for pediatric residents utilizing a case competition focused on cost-effective diagnostic evaluation.

# Methods: Curriculum Design

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- Adhered to Kern's six steps of curricular development
- Informed by the conceptual frameworks of social cognitive theory and communities of practice
- Created an email-facilitated team-based case competition focused on cost-effective evaluation and diagnosis during the 2020-2021 academic year

# Methods: Curriculum Elements

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# Methods: Curriculum Evaluation

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- Surveyed participating residents after each case regarding attitudes, practice changes, knowledge gained, and email format
- Conducted 2 focus groups with a total of 5 residents at the end of the academic year
- Using basic interpretative qualitative methodology, focus group transcripts were analyzed by three faculty and one resident iteratively until consensus of themes was obtained.

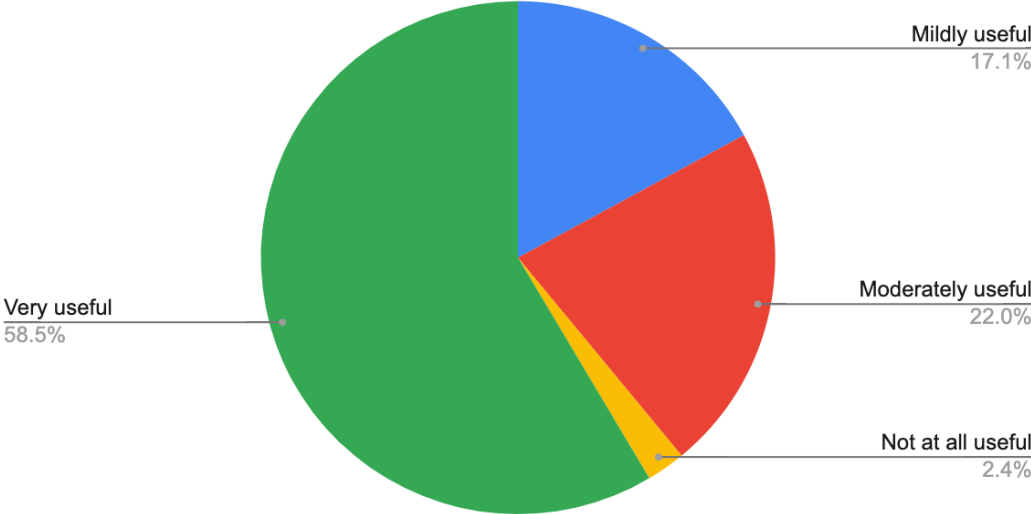
# Survey Results

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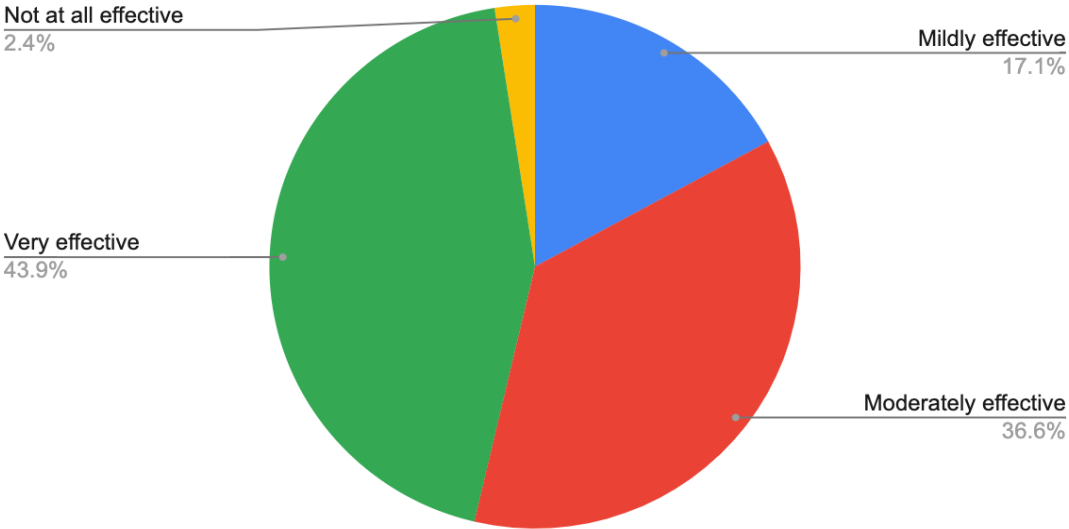
- A mean of 28 residents participated in each case, which included 17% of PGY-1s, 9% of PGY-2s, and 16% of PGY-3+s
- Survey response rate was 36%



How useful was this week's "Case Competition" for your clinical practice?



How effective was using email as an educational method to facilitate this case competition?



# Qualitative Analysis: Themes

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**Enhancement of  
HVC Attitudes,  
Behaviors, and  
Awareness**

**Case  
competition element  
increased  
engagement**

**Active  
learning through  
cases and  
collaboration**

**Email as a mode  
for delivery of HVC  
resident education**

# Enhancement of HVC Attitudes, Behaviors, and Awareness

“This was a nice exercise in demonstrating that the **day-to-day work that we do even as residents, can be exercises in high-value care, and the decisions we make... does this test actually change what we're going to do for this patient?**”

“But it's that application, then **you're practicing that skill, and more likely to use it.**”

# Case competition element increased engagement

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“I feel it was helpful with **buy-in**. I think in general, I'm one of the least competitive humans, but I will say it **fostered collaboration among our class...** I think it was effective in **getting people engaged.**”

“I love competition... It's fun to make it a game. There's some **camaraderie** there.”

# Active learning through cases and collaboration

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“I think it's been some of the **most efficacious email learning I've experienced**... I think I learned more from that than morning reports and things like that, because if I participated at all in high-value care, it **was my own choice.**”

“I think it's been motivating for me to just become a **better doctor and a better clinician**... And be inspired by each other and each other's **commitment to doing right for the patient**”

# Email as a mode for delivery of HVC resident education

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“...when we're doing [cases] virtually, and just over a more prolonged period, **everyone has the opportunity to provide input** that might not occur in an in-person format with such a large group.”

“I think it gave us **more time to percolate and to think.**”

# Conclusions

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- A longitudinal email-facilitated case competition may be an effective strategy to improve resident cost awareness.
- Gamification increased resident engagement, and the email format allowed for flexibility for some residents.
- Further work is needed to incorporate other HVC principles such as patient/family experience into the curriculum.

# Limitations

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- Study only performed at one site over one clinical year
- Few focus group participants
- Variable class and resident participation



# Next Steps

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- Consider hybrid model of in person and online competitions given mixed feedback and benefits of both formats
- Integrate family and patient experience into HVC cases

# Questions?

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