



# Structured Videoconference for Case Discussions with a Specialist: a pilot trial

## *Videoconferencia estructurada para discusión de casos con un especialista: un piloto*

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Dear Editor:

A previous report described the benefits of remote learning for highly specialized surgical techniques<sup>[1]</sup>. This approach could have a bigger impact on primary care, especially in remote areas. Access to professional development, academic activities, and formal continuing medical education play a role in the decision of where to practice medicine after graduation<sup>[2,3]</sup>.

Case-based learning (CBL) has long been regarded as the more interactive and effective method of teaching in medicine<sup>[4,5]</sup>. This didactic structure has been shown to improve teamwork, and clinical skills, and enhance clinical knowledge<sup>[6]</sup>.

In this letter, we describe a pilot case-based learning session for Internal Medicine (IM) residents, with cases presented by the residents and discussions led by endocrinologists.

Our IM Residency Program has 110-115 residents in two teaching hospitals: Shands Hospital and the Malcolm Randall Veteran Affairs Hospital. The “Meet the Experts and Discuss the Case” (MEDICASE) sessions were initiated in November 2020 in response to the need for more virtual didactics during the COVID-19 pandemic. MEDICASE was incorporated into the 4-week Ambulatory rotation of the Residency program.

These monthly sessions were 45-60 minutes long and held virtually via Zoom. Each session consisted of 4-10 IM residents in varying levels of training (between 1<sup>st</sup> and 3<sup>rd</sup> year).

Two residents from each Ambulatory rotation group provided 6-8 PowerPoint slides with a patient case from their outpatient clinics with an endocrinology concern that warranted an evaluation by the endocrinology service. PowerPoint slides with detailed clinical presentations and a few relevant clinical questions were provided to the endocrinologists 2 weeks in advance of the MEDICASE session. The endocrinologist then prepared 15-20 slides more, addressing the clinical questions with evidence-based answers, clinical pearls, and practical concepts for the IM residents. Residents were encouraged to ask clarifying questions and alternative scenarios to help better understand these concepts.

Following these sessions, residents were provided anonymous digital surveys to assess their MEDICASE session. This study was approved by our IRB (IRB202200906).

A total of 75 IM residents participated in the MEDICASE sessions from November 2020 through October 2021 in a total of 10 monthly sessions. Of these participants, 40 received the feedback survey, as in the first three sessions no surveys were sent. Of the 40 surveys distributed, a total of 17 surveys were completed, resulting in a response rate of 42.5% (17/40). All participants who completed the survey (17/17) reported that their clinical questions were answered. All participants who completed the survey also felt that the MEDICASE sessions were helping to enhance the patient care they would be providing in the future. Table 1 shows a summary of the comments provided by the residents.

A longitudinal study found that physicians from small clinics have higher rates of attrition compared to physicians working in larger medical centers [7]. Compared to primary care providers from the same medical centers, the rates of attrition were lower among those who worked in a specialized, comprehensive clinic. Comprehensive centers are known for having specialty support resources that increase professional satisfaction and patient care.

The responses to the MEDICASE sessions from residents were overwhelmingly positive reflecting high levels of professional satisfaction with our MEDICASE sessions. The most consistent feedback was the fact that the information provided by the facilitators was distilled down to practical clinical pearls that were easy to incorporate into patient care.

By using a videoconference platform, our sessions offered specialized knowledge to primary care physicians in any location, which is particularly useful in remote and/or rural areas. Limitations of our approach include a small sample size and single-center study, potentially affecting generalization.

**Conclusions.** Case-based learning didactics with expert facilitators are relatively easy to implement. This interactive learning structure is successful in delivering knowledge, increasing resident participation, and can improve patient care in areas where subspecialty expertise is scarce.

#### Authorship contributions

Janelis Gonzalez and Sarah Pang participated in data collection, entered data for analysis, and prepared early versions of manuscript. Sushma Kadiyala and Julio Leey participated in study design, delivery of educational sessions, and prepared final version of the manuscript.

#### Conflicts of interest

The authors declare no conflict of interest.

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**Table 1. Resident Feedback on “Meet the Experts and Discuss the Case” Sessions**

What did you like most about this activity?
<ul style="list-style-type: none"> <li>• “Focused on practical knowledge rather than theoretical.”</li> <li>• “Well-organized, very informational with the review of the guidelines for each case. I really appreciated the preparation the speakers had done beforehand; it helped the session run very smoothly.”</li> <li>• “Small group interaction with subspecialty attendings.”</li> <li>• “I like feeling more empowered to care for simple endocrine issues as [a] primary care [physician].”</li> <li>• “The highlighted teaching points that were high yield and very applicable to the clinical setting,”</li> <li>• “I liked that the activity was interactive. It helps solidify key concepts better...”</li> <li>• “I enjoyed the expert opinions on our case presentations. I always enjoy when we have experts weigh in.”</li> </ul>