

Emergency Medicine Virtual Case Studies Series: An Innovative Approach to Medical Education During the COVID-19 Pandemic



WAYNE STATE
School of Medicine

Kristina Barrientos, Sara Saymuah Stone, MS, Catalina Kenney, Collin Brooks
Wayne State University, School of Medicine, Detroit, MI



INTRODUCTION

- **Medical education** has experienced an unprecedented disruption in interactive problem-solving sessions and clinical immersion experiences due to the **COVID-19 pandemic**.
- Social distancing requirements precluded in-person service learning, shadowing opportunities, and clinical skills simulations, prompting medical educators and students to implement **virtual clinical experiential opportunities**.

OBJECTIVES

- The **Emergency Medicine Interest Group (EMIG)** at Wayne State University, School of Medicine (WSUSOM) addressed these challenges by initiating interactive virtual case studies series.
- The **virtual case studies series served to:**
 - Enhance pre-clerkship and clerkship curriculum by providing real case analysis of various chief complaints
 - Review high-yield clinical concepts to prepare for NBME and USMLE Step examinations.
 - Grant students (1) clinical hour per case study to help fulfill service-learning curricular requirements
 - Provide students opportunities to engage and network with emergency medicine (EM) physicians in the metro Detroit area

METHODS

- EMIG coordinators recruited EM resident physicians from **Detroit Medical Center (DMC) Detroit Receiving** and **Sinai Grace Hospitals**.
- Five virtual case studies series were scheduled, each lasting a minimum 1 hour in duration.
- We promoted these events by emailing the M1-4 classes and posting flyers on the EMIG Instagram.
- Each Zoom session was **heavily interactive** by utilizing the polling, chat, and audio features.

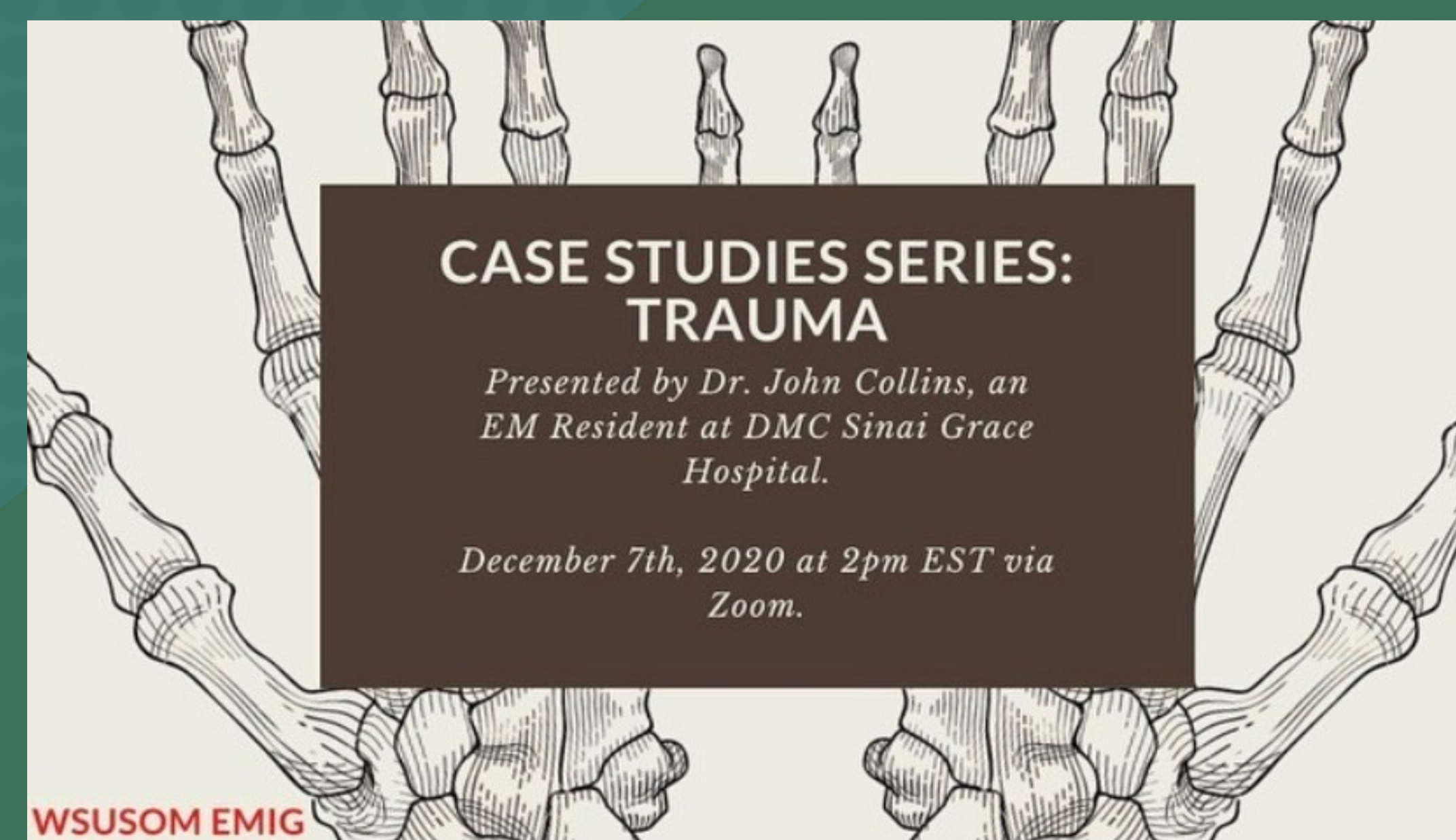


Figure 1. Example of Case Studies flyer

"Great case and presentation, reminds me of why I want to do medicine when studying for these exams."

"This was a very informative and useful case study, I really enjoyed it. Definitely a little over my head as a M1 student, but I learned a lot."

"Great level of information! The Zoom polls keep students very engaged."

"This was really helpful--great to apply some of what we're learning to a real-life experience."

OUTCOMES

- Overwhelmingly **positive feedback** provided via Google form surveys indicated that EMIG's virtual case studies series was **well-received** by WSUSOM medical students and that Zoom was the appropriate platform for these sessions
- We confirmed **209 clinical service-learning hours** for M1s and M2s throughout these five clinical case studies series.
- Many other WSUSOM student interest organizations have reproduced the virtual case studies series model.
- The current EMIG coordinators continue to offer these virtual case study series for **curricular enhancement**.

CONCLUSION

Social distancing requirements due to the COVID-19 pandemic interrupted hands-on clinical experiences for medical students across the country. The EMIG produced a virtual case studies series to address this challenge at our institution. Preliminary analysis indicates interactive virtual case studies can provide **valuable clinical insight** for medical students unable to attend clinic or shadow in the emergency department.

We encourage medical institutions to use this framework to provide similar virtual clinical experiences for their medical students.