

Echocardiography For the Clinical Medical Student

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UMMS Capstone for Impact

Branch: Procedures Based Care

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Project Summary

We developed online modules to teach the fundamentals of echocardiography. The first series of modules covers the basic physics of ultrasound and Doppler flow, and goes through the anatomy of the four main views that cardiac ultrasound uses. The second module applies that learning to aortic stenosis, illustrating both the importance diagnostic and staging criteria that echo conveys, as well as highlighting the information that ultrasound cannot be used to tell. "

Action Items/Outcome

Taught self about the main clinical uses for echocardiography and how to perform a basic interpretation of images

Developed two modules - an introduction to basic echo physics and its applications for understanding heart disease

Used self-taught knowledge to read echo's in the Echo lab during structural heart disease elective

Used online modules as an adjunct to teaching both as an OMSE tutor for M1's learning about structural heart disease, and while volunteering at the student run free clinic to explain a murmur an M1 had heard"

Conclusion/Reflection

I loved this impact project. It allowed me to spend hours teaching myself about Echo, which I had not yet seen outside of a few short 'chalk talks' on my cardiology rotations. Having immersed myself in Echo, I was able to learn much more on my IndArr structural heart disease elective when I rotated through the Echo lab.

Additionally, one of my other goals this year was to further develop my teaching skills. Thankfully, I was able to use the resources I developed to teach the M1's I've worked with at the UMSRFC and as an OMSE tutor - this was an unexpected synergy that I am delighted to have experienced. That said, the big takeaway from me is that while I love 1-on-1 teaching, I do not enjoy the curricular design as much - I will likely not pursue specific medical education tracks in residency that focus on curricular design (as opposed to bedside clinical teaching) because I had this opportunity to get my feet wet.