

Lung Ultrasound Prior to Discharge in Heart Failure Patients: Assessing Internal Medicine Residents' Attitudes on Barriers, Facilitators, Utility, and Comfort of POCUS as a Clinical Tool

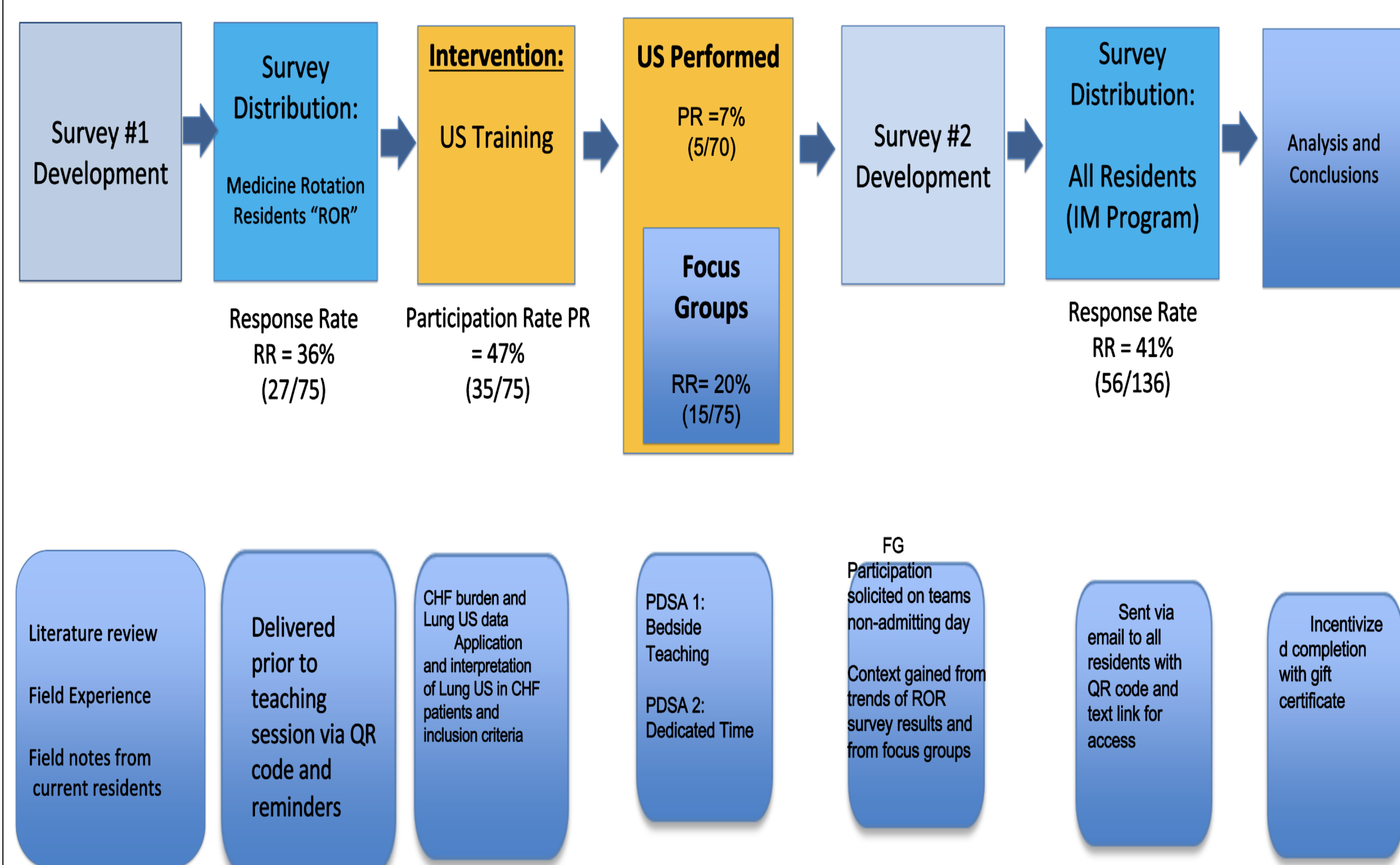
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Introduction

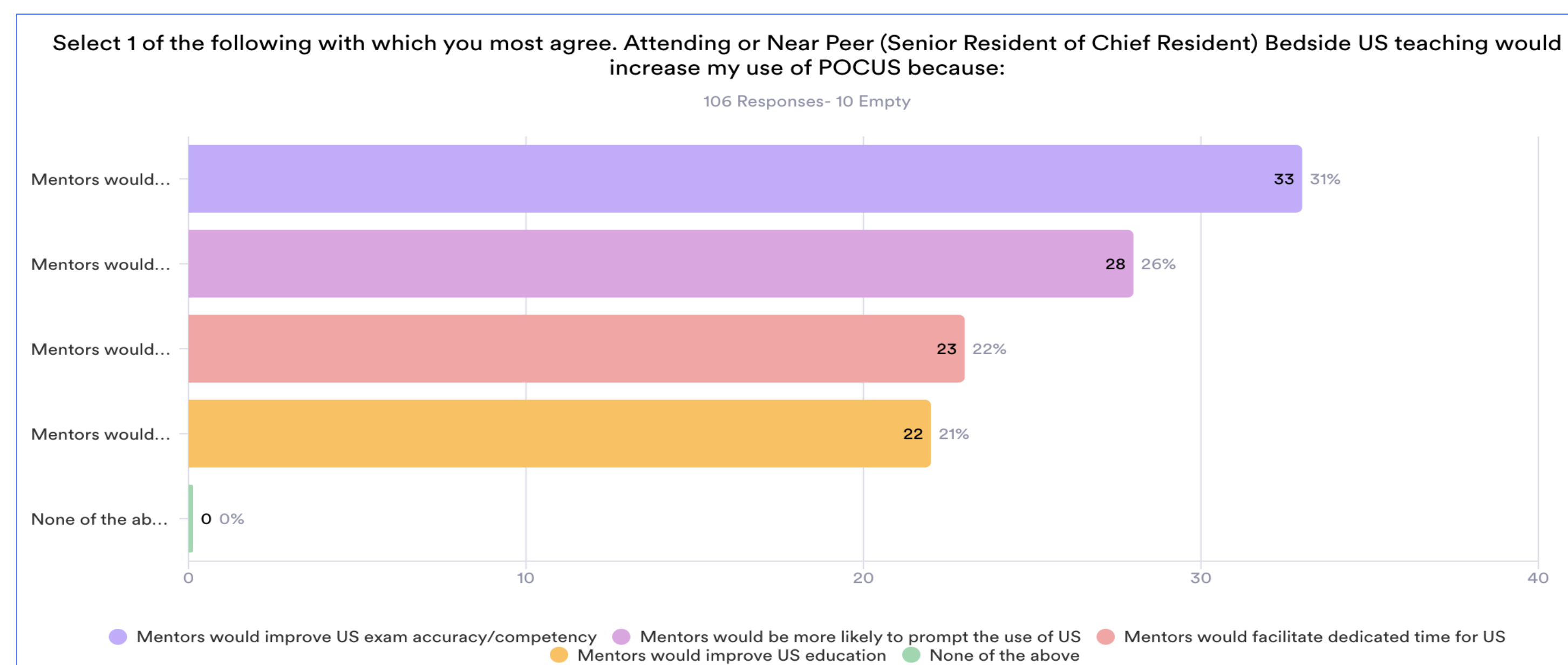
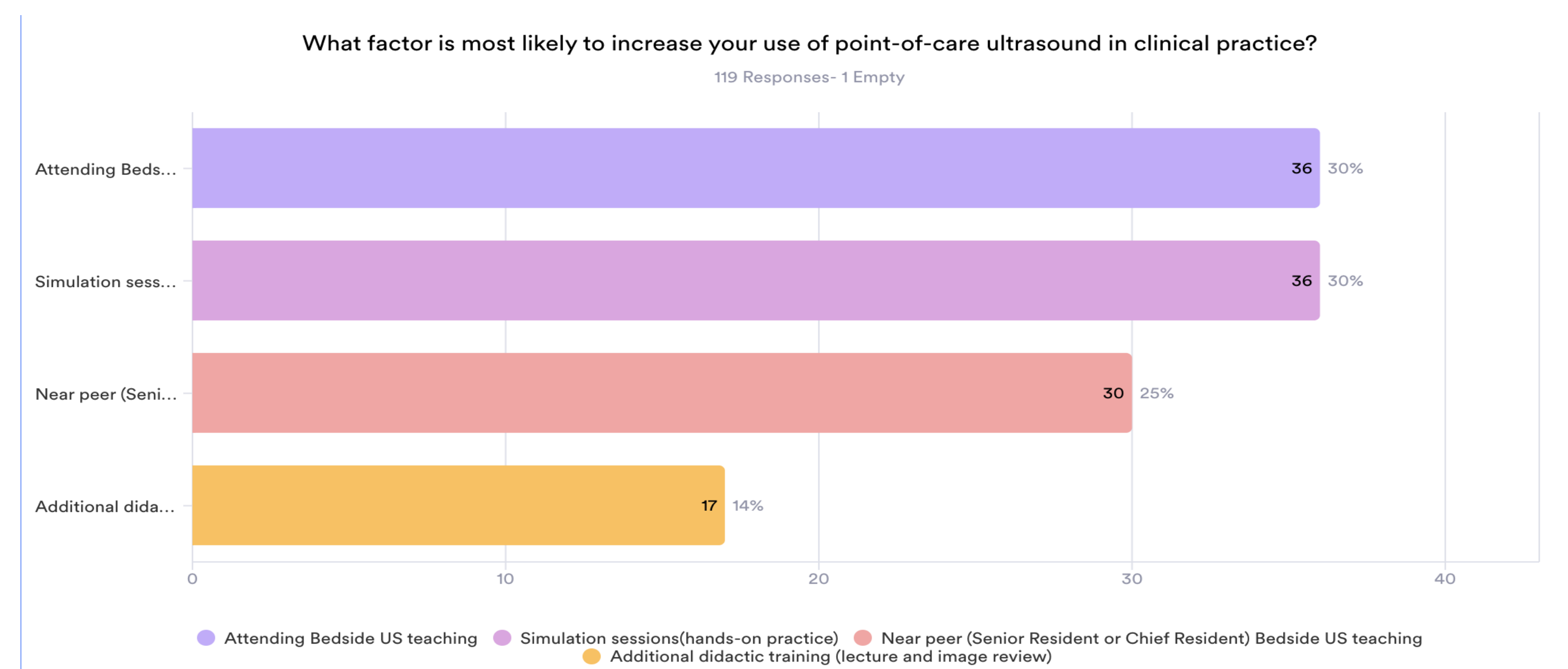
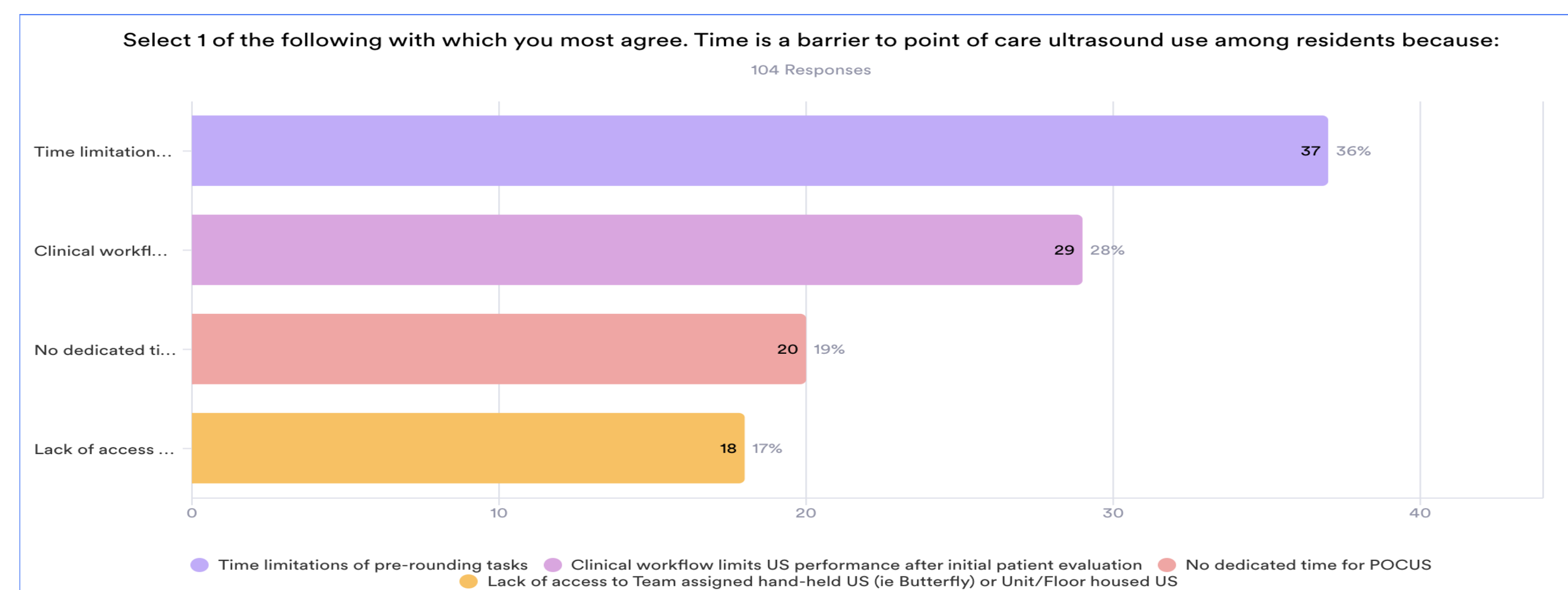
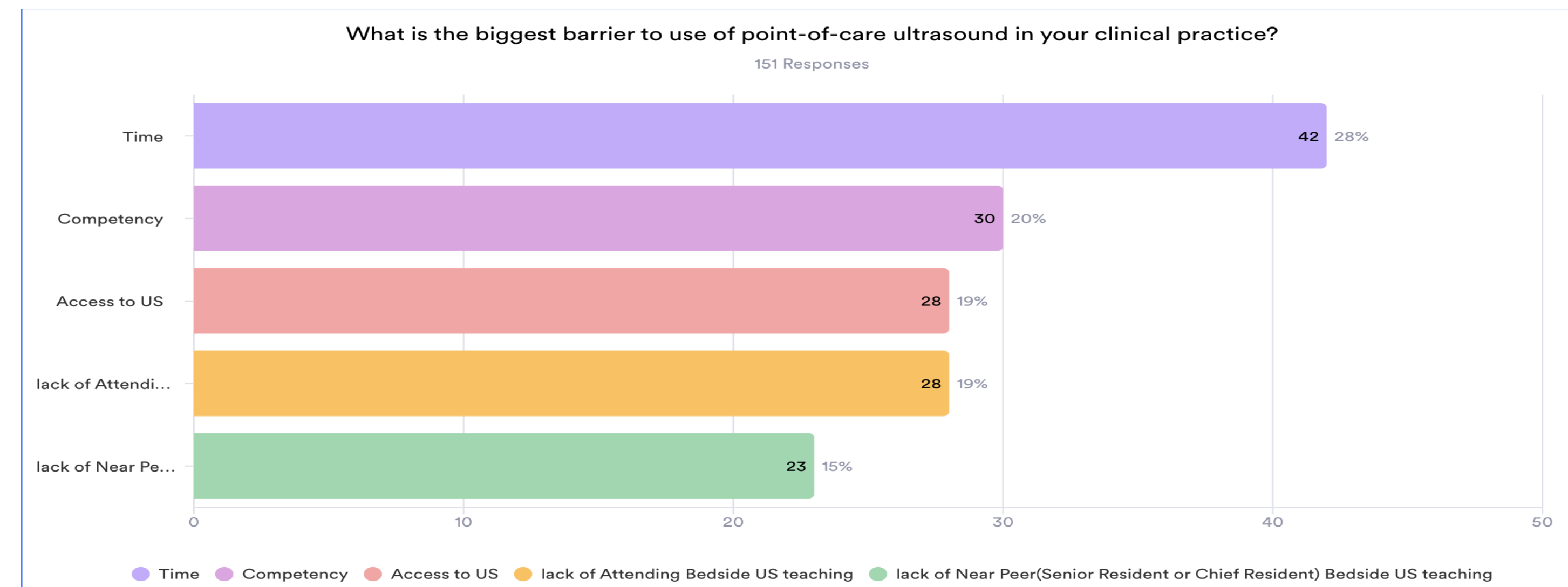
- Heart failure impacts ~6.2 million Americans annually which equates to greater than \$30 billion in healthcare costs
- Looking deeper, this is due in large part to readmission for acute on chronic heart failure, accounting for ~76-87% of the 1 million annual heart failure admissions
- Admissions are attributed to dyspnea, pulmonary edema, and peripheral edema in up to 89% of cases
- Residual pulmonary edema at the time of discharge represents an important indicator of worse outcomes
- Lung ultrasound (LUS) prior to discharge and LUS guided approach to management have demonstrated improved outcomes with regards to readmission rates, morbidity, and mortality
- Despite the above, LUS is under-utilized as a clinical tool prior to discharge in heart failure patients

Objectives and Methods

- Understand resident barriers to point of care lung ultrasound (pre-survey)
- Interventions = US training + performance
- Further characterize barriers (post-intervention)
- Develop survey to study barriers in broader context and analyze



Results



Conclusion

- Time is a significant barrier to resident utilization of POCUS
- Hands on instruction in the clinical setting from an ultrasound trained mentor felt to improve POCUS utilization and successful performance
- Attending physician directed US education is favored amongst residents

Future Directions

- Design an attending directed POCUS curriculum with attention to standardization and competency assessment
- Evaluate programs impact on utilization of POCUS among internal medicine residents
- Obtain feedback on the strengths and weaknesses of the curriculum to promote continuous process improvement
- After reaching threshold level of utilization, begin assessment of internal medicine resident US exam competency
- Evaluate impact on patient outcomes

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