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## Reply to: Comment on: Evidence for Anchoring Bias during Physician Decision-Making

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# In Reply

We agree with Drs. Aberegg and Graham that earlier studies of anchoring bias focused on a numerical anchor. We also agree that experiments in a controlled setting would be useful in examining the hypothesized phenomenon of anchoring to a categorical diagnosis. However, in the absence of such experiments, we believe that our study is one of the first to provide empirical support for such a phenomenon in a real-world clinical setting.

As the letter writers note, we acknowledged in our paper that the population with a patient visit reason that mentions congestive heart failure (CHF) differs in important ways from the population with a visit reason that does not mention CHF. However, the two populations do not differ in the ultimate incidence of pulmonary embolism (PE), suggesting that having a visit reason that mentions CHF does not provide additional information on PE incidence. In addition, in our matched analysis where these differences are much smaller, our results are largely unchanged. Finally, we did acknowledge in the limitations section the potential presence of unobserved clinical confounders not captured in our data.

Despite these limitations, our results show that having a visit reason that mentions CHF was associated with clinically meaningful differences in testing, including an adjusted difference between the two populations in PE testing of 4.6 percentage points (relative to a mean rate of PE testing of 13.2 percent) and an adjusted difference in B-type natriuretic peptide (BNP) testing of 10.4 percentage points (relative to a mean rate of BNP testing of 71.4 percent). Our paper, while finding a difference in PE testing, a difference in rates of PE diagnosis in the ED, and no

difference in rates of ultimate PE diagnosis, was agnostic on the appropriateness of the PE testing examined.

Our analysis is certainly not the final word on this topic, but rather hopefully a beginning of work that provides empirical evidence on the potential presence of anchoring bias and other cognitive biases in common clinical settings.

# References

 Aberegg SK, Graham J. Comment on: Evidence for Anchoring Bias during Physician Decision-Making. JAMA Intern Med 2023; in press.