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Individuals With Less Severe Manifestations of SARS-CoV-2 Infection May Not Develop Long-Lasting Humoral Immunity*Am J Clin Pathol* 2020;XX:1-1

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To the Editor

The recent publication by Phipps et al¹ adds further to our knowledge of antibody responses to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. The authors report that measurement of serum immunoglobulin G (IgG) and immunoglobulin M (IgM) antibodies does not predict for disease severity. Although, in this study, serum IgG levels appeared to persist in those patients with more severe infection (to over 40 days after symptom onset in one case), there was a lack of follow-up data on serum IgG levels in milder cases. Interestingly, in another recent publication, Ibarrondo et al² performed serial measurements of IgG levels in 34 persons who had recovered from coronavirus disease 2019 infection, most of whom had mild infection, and detected rapid decay of anti-SARS-CoV-2

antibodies. This raises the possibility that humoral immunity may not be long lasting in most patients following SARS-CoV-2 infection. It will, therefore, be very important that future studies accurately determine the reinfection rate for individuals following recovery from SARS-CoV-2 and correlate this to both severity of initial infection and persistence or not of serum IgG levels. Development of an anamnestic antibody response to reinfection with SARS-CoV-2, however, seems unlikely, given the findings of previous studies that naturally acquired humoral immunity for SARS-CoV-1 infection persists for a limited time only.³

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References

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