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Title: Prevalence of SARS-CoV-2 infection among obstetrical patients in Ottawa, Canada: a descriptive study
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Reviewer 1: Dr. Amanda Selk
Institution: Mount Sinai Hospital
General comments (author response in bold)

This is a well written paper. Very clear and easy to read. The only real questions I have are understanding better the point of screening the pregnant patients.
Is full PPE used for all patients regardless of symptoms of covid? Some patients become positive during hospital admissions which put staff and other patients at risk.
What is the reason to test all the patients other than point prevalence in this study?
Would the authors recommend other Canadian centres adopt this strategy?
We would like to thank the Reviewer for their thoughtful consideration of our submission. At the suggestion of the Editorial Board, we have reframed this study as a descriptive analysis, and we have taken this opportunity to clarify the objective of the study.

The primary objective of this study was to describe the prevalence of SARS-CoV-2 infection and seroprevalence in our study sample. However, at the request of the Editorial Board, we also use this manuscript as an opportunity to comment on lessons learned from this study, and the overall feasibility and utility of widespread SARS-CoV-2 PCR and antibody testing in obstetrical patients.

We have clarified our objectives at the end of the "Introduction" section, and revised the "Interpretation" section to speak to the 'lessons learned' and our recommendations regarding the utility of widespread hospital screening/testing in future pandemic waves, or for future pandemics.

Revised Text [Introduction]: "The objective of this study was to describe the prevalence of SARS-CoV-2 infection in pregnant individuals admitted to triage units at a tertiary care hospital in Ottawa, Canada."

Revised Text [Interpretation]: "While the prevalence data presented in this study alludes to the burden of COVID-19 disease in the local obstetrical population, this study additionally provides insights on implementation of virus and serology testing of patients at our tertiary care centre. Although testing was offered free of charge and would have provided participants with information as to whether they were currently infected or had recently been infected with SARS-CoV-2, 32% (206/632) of eligible individuals declined participation. Leading reasons for not wanting to participate included desire to avoid the physical discomfort caused by testing, and anxiety regarding possible care and lifestyle implications of testing positive. Stigma and discrimination against individuals who have had COVID-19

are well documented,[20,21] and are shown to influence individuals' decisions to get tested or seek treatment.[22,23] Where COVID-19 testing continues to be a predominantly elective process, more work is needed to examine and address individual-, community- and system-level barriers that inhibit COVID-19 test seeking behaviours.[24] Implementation of universal testing protocols at our hospital centre would have improved enrollment rate into our study, however, the logistics of implementing such protocols are complex. Whether universal testing programs are a justifiable use of resources remains a subject of debate,6,25 and have only been adopted elsewhere as temporary measures taken early in the first wave of the pandemic.[4,6,26,27,28] To be effective, patients/visitors must be willing to submit to testing, testing methods need to be reliable, and staff and laboratory resources must be readily available to accommodate timely reporting of results. Finally, given the high financial costs, there must be substantive benefits to both patients and the health system. As the COVID-19 pandemic continues and the number of infected individuals grows, our experience informs us that universal testing in the obstetrical population is unlikely to be of added benefit."

Reviewer 2: Dr. Patrick Duff
General comments (author response in bold)

1. Please provide more thoughts about why you think the prevalence of infection was so low in your population compared to others, both in Canada and the U.S.
Thank you for this comment. Differences in timing of testing relative to local pandemic waves, local population density and participant demographics are all likely to influence the prevalence of infection. We have added a brief comment on the relatively low prevalence of infection in our study population compared to those reported by others in Montreal, the United States and elsewhere.

Given that we have been advised by the Editorial Board to focus on the lessons learned about widespread screening in the obstetrical population, we have revised the "Interpretation Section" to focus more on this content.

Revised Text [Interpretation]: "Our findings are similar to those from a study conducted in Toronto, Ontario during the first wave of the pandemic, where the prevalence of active SARS-CoV-2 infection in the obstetrical population was estimated at 0.9%. However, seroprevalence in our sample was substantially higher than what was reported in British Columbia during the first wave (<1%).9 This may, in part, reflect the later time period during which our study was conducted; the larger second wave of the pandemic in Canada began after a period of relaxation of public health measures during the late summer and early fall of 2020, and it follows that the number of individuals with SARS-CoV-2 infection history has only increased with time.

SARS-CoV-2 antibodies may develop anywhere between days and weeks after onset of clinical illness.[14,15] IgG antibodies may persist for several months or more after infection,[16] whereas IgM and IgA antibodies decay more rapidly.17 Our finding that the majority of seropositive participants exhibited IgG antibodies alone, suggests that they had likely contracted COVID-19 weeks, if not months before the study. Interestingly, just 17.6% (3/17) of seropositive cases had documentation of a positive SARS-CoV-2 test in their medical records. At the time

this study was conducted, PCR tests were available through local pharmacies and clinical assessment centres. Rapid tests were not widely available to the public. The relatively large proportion of seropositive participants in this study for whom there was no record of a positive PCR test suggests that many of our participants may not have sought out testing due to asymptomatic presentation, and/or hesitancy to get tested despite the presence of symptoms, close contact history or recent travel history."

2. In the latter part of the discussion, line 25 on page 8, I think you left out a phrase. I believe that this sentence should read, "As a result, 238 individuals were not screened because they presented to the triage unit when research staff members were not available, and 174 declined to participate."
We apologize for this oversight. This particular phrase has been removed from the "Interpretation" Section. As above, we have reframed our discussion to focus on the lessons learned about widespread screening in the obstetrical population.

3. Table 1 is a simple two-column table, The information presented in this table can be summarized more succinctly in the narrative test, thus, preserving scarce editorial space. Moreover, some of the information presented in the table (e.g., substance use, anxiety, depression, antenatal provider) does not seem particularly relevant to the current study.
Thank you. We agree that the information provided within Tables 1 and 2 could be streamlined. We have combined these two tables, and included a more succinct narrative synopsis of the overall study cohort within the main text. We have also reduced the number of variables presented in the revised Table to include only those we feel are relevant for characterizing our study sample. We defer to suggestions from the reviewer and editorial board regarding whether the table should be streamlined further.

Revised Text [Participant Characteristics]: "The sociodemographic, clinical and pregnancy characteristics of the study cohort are summarized in Table 2. The majority of participants (88%) were in their third trimester of pregnancy at the time of participation, multiparous (54%), Caucasian (56%) and did not have pre-existing health conditions (84%). The average maternal age (±SD) was 32.4 years (±4.9). Participants were evenly distributed across neighbourhood median family income quintiles. Through BORN Ontario, we had complete ascertainment of pregnancy and newborn outcomes. The median gestational age at delivery was 39.0 weeks (IQR 38.0, 40.0) and 141 (39%) participants delivered by caesarean section."

If I am reading tables 2 and 3 correctly, only one comparison (pre-pregnancy BMI) was statistically significantly different. In that instance, I think the statistical difference has very little clinical significance. Therefore, I'm not sure that inclusion of these tables is necessary. I think their key points could be summarized succinctly in the narrative text.
Thank you. We have reframed this study as a descriptive analysis at the advice of the Editorial Board. We believe that presenting this information in a Table(s) is the best way for the reader to quickly and easily digest the characteristics of the study sample.

We agree that the information provided within the Tables could be streamlined. To address this, we have combined the sociodemographic and outcomes tables and

included a more succinct narrative synopsis of the overall study cohort within the main text. We also appreciate that it may not be helpful to draw comparison between the seropositive and seronegative participants in our study. Based on feedback received from the Editorial Board the Statistician and reviewers, we have revised the tables and figures presented in our submission, and no longer include comparisons between these two groups.