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Letter to the Editor

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Systematic screening for SARS-CoV-2 in pregnant women admitted for delivery: not as easy as it sounds

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To the Editor,

We welcome the results of Dr R. Figueiredo et al. study on the use of a universal screening strategy for SARS-CoV-2 in the University Hospital of Porto [1]. Following the systematic screening of 184 patients, they identified 11 women testing positive for SARS-CoV-2. Of these only two were symptomatic at initial testing. As a result, they recommend universal laboratory testing by standard polymerase chain reaction (PCR) tests to guide personal protections use and patient orientation within the hospital. We would however like to emphasize the challenges of such a strategy should it be universally generalized. One is, despite major efforts, limited worldwide availability of reliable testing kits and accredited laboratories. This may preclude in a number of countries the performance of standard polymerase chain reaction (PCR) tests at a large scale [2, 3]. Another, is the accuracy of the test itself. It depends both on its core characteristics (sensitivity/specificity) and the prevalence of the infection. The SARS-CoV-2 PCR test, because it relies on the ability to capture the virus present in sputum or nasopharyngeal swab has a sensitivity of approximately 63% (32–72) and an assumed specificity of 99% [4]. Depending on the prevalence of the disease, its performance will vary significantly (Figure 1). For instance, using the annual Portuguese birth rate figure of 79 494 [5], if a universal testing strategy is used in areas with low prevalence of infection (i.e. Porto, 5.97%) this result in 11.1% of perfectly healthy women having a positive SARS-CoV-2 test. In contrast, should the infection prevalence reach 38% [6], such as in China, 18.6% of infected women would have a negative SARS-CoV-2 test (Figure 1). If we fully support universal screening strategies, we would like to highlight its pitfalls and remind that it cannot be used as an exclusive guide of hospital isolation practices and personal protection equipment use.

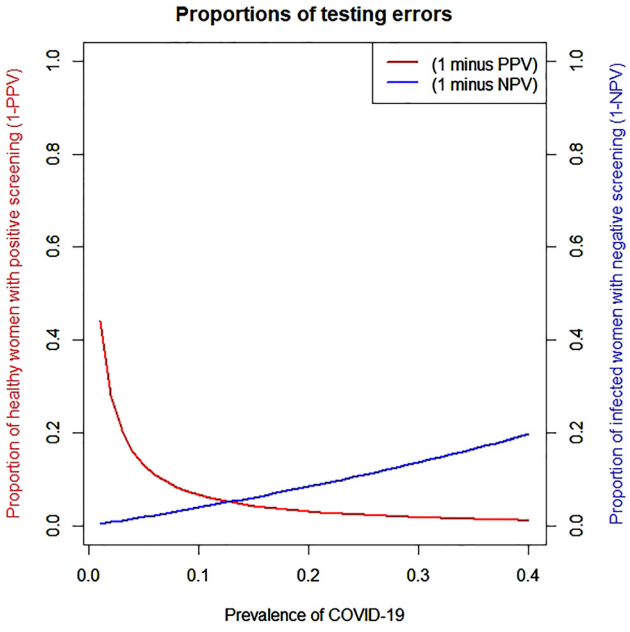

Figure 1: Proportion of testing errors.

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