

LETTER TO THE EDITOR

COVID-19 PCR Test, Cluster of False Positive and Importance of Quality Control

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(Clin. Lab. 2020;66:xx-xx. DOI: 10.7754/Clin.Lab.2020.200629)

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KEY WORDS

COVID-19 PCR test, cluster, false positive, quality control

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Dear Editor, the diagnosis of COVID-19 requires a specific laboratory test. The RT-PCR test is a common gold standard used worldwide. Similar to any laboratory test, quality control of the COVID-19 RT-PCR is necessary. A false result is possible. There are many reports on false negative results of COVID-19 RT-PCR test which is usually related to poor specimen collection or inappropriate period of specimen collection [1-3]. Regarding false positives, it is also possible and infrequently mentioned. Sometimes, there might be a big cluster of false positive COVID-19 tests. For example, according to the local Thai CDC report, there is an interesting cluster of false positive COVID-19 RT-PCR tests. The problem was first observed and reported from a rural province. In that episode, the local laboratory first investigated 311 cases from active case search policies. Of these tests, at first 40 (12.86%) were positive for COVID-19 test. However, the local epidemiologist noted that there is an abnormal increase of positivity compared to background data. Thus, rechecking for possible causes of aberrant laboratory results was done.

According to the investigation, the problem of contamination in RT-PCT tool was detected; negative control yielded positive result. Therefore, the rechecking by 2 standard referencing laboratories was done and the results were negative in all 40 cases. This situation shows that pre-analytical error can cause the problem of false positive COVID-19 result. If there is no good quality control, a false positive might mislead the plan for local disease control. Quality control and assurance on COVID-19 is an important issue to manage in clinical laboratory [4].

Declaration of Interest:

None.

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Letter to the Editor accepted July 2, 2020