Safety considerations in laboratory practice when testing specimens from patients suspected or infected with SARS-CoV-2

The recent emergence of the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), which causes Coronavirus Disease 2019 (COVID-19), has again heightened the need for laboratories to review their biosafety practices and to update them with the new recommendations. Laboratorians are again reminded that any specimen received in the laboratory might contain a highly hazardous pathogen (HHP) and that a safe environment for the staff is required for quality laboratory testing to be performed (a balance of safety and quality in providing results).

This article reports the Simplified Biological Risk Assessment (characterising the risks, having a strategy for mitigating the risks, and providing an adequately trained workforce to safely perform the tasks as assigned in the laboratory), and defines the Basic Core Processes to Support Laboratory Biosafety Practices when handling specimens from a Patient under Investigation for COVID-19.

Considering laboratory differences, the take-home message is that, through a risk assessment, elaborating a process is necessary to be able to provide a safe environment for laboratory staff.

Reference: Peter C. Iwen, et al. Safety Considerations in the Laboratory Testing of Specimens Suspected or Known to Contain the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). Am J Clin Pathol 2020; XX:1–4 DOI: 10.1093/AJCP/AQAA047

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Other Resources:

- Centre for Disease Control and Prevention Guidelines:
  - Interim Laboratory Biosafety Guidelines for Handling and Processing Specimens Associated with Coronavirus Disease 2019 (COVID-19)
  - Laboratory Biosafety and COVID-19: Questions and Answers

- South African National Institute of Communicable Diseases: Clinical management of suspected or confirmed COVID-19 disease
The NETEC has developed an instructional video for donning and doffing PPE when working with the 2019 novel coronavirus. Source: https://repository.netecweb.org/exhibits/show/ncov/item/688