

Laboratory diagnosis of covid 19: an overview, and key considerations

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Abstract

Lab diagnosis is a crucial milestone for the treatment, prevention, and epidemiological surveillance, limiting the pandemic of sars-cov-2. Real-time reverse transcription-PCR is currently the most reliable diagnostic method for COVID-19 around the world. Many real-time RT-PCR protocols have been proposed for the diagnosis of COVID-19, these protocols differ in the genes they detect. Samples recommended by the who for the specific tests include nasopharyngeal, bronchoalveolar, tracheal, and sputum for the diagnosis of sars-cov-2, some other specimens that would be used will be mentioned. Accuracy of viral RNA swabs in clinical practice varies depending on the site and quality of sampling, and stage of disease. Test interpretation criteria and considerations for possible false negative results will be discussed. Antigen tests for diagnosis of covid-19, in addition to the serological tests, that identify the presence of humoral response to SARS-COV-2. antibodies specific to different virus proteins could be detected by enzyme-linked immunosorbent assay (ELISA) or chemiluminescence immunoassays (CLIA), and the latter has been shown to be more sensitive. In regions where there are no specialized laboratories, the point-of-care tests for sars-cov-2 proteins, using lateral flow assays, are useful for diagnosis. Other hematological, biochemical markers used in the clinical diagnosis will be briefly mentioned. Laboratory guidelines for biosafety and infection control during handling and sample processing that should be followed to protect the laboratory personnel



Biography:

Wafaa Zahran is a Professor of Medical Microbiology& Immunology, Faculty of Medicine, Dean of Faculty of Pharmacy, Menoufia University Egypt. She is also the Head of infection control unit, Menoufia University Hospitals. She completed her MBBch faculty of Medicine at Tanta University.

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Speaker Publications:

1. "Prevalence of multidrug-resistant *Pseudomonas aeruginosa* in patients with nosocomial infections at a university hospital in Egypt, with special reference to typing methods"
2. "Human natural killer T cells (NKT), NK and T cells in pulmonary tuberculosis: potential indicators for disease activity and prognosis."
3. "Evaluation of bacterial adherence and biofilm arrangements as new targets in treatment of chronic rhinosinusitis"
4. "Surgical site infections: Problem of multidrug-resistant bacteria"
5. "Comparison of reverse transcription-PCR and viral culture for detection of respiratory syncytial virus in young children: relation to epidemiological and clinical findings"

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