آغا خان یونیورسٹی ہسپتال
The Aga Khan University Hospital

THE AGA KHAN UNIVERSITY HOSPITAL
CLINICAL LABORATORIES

UPDATE
SARS-CoV2 rapid antigen test

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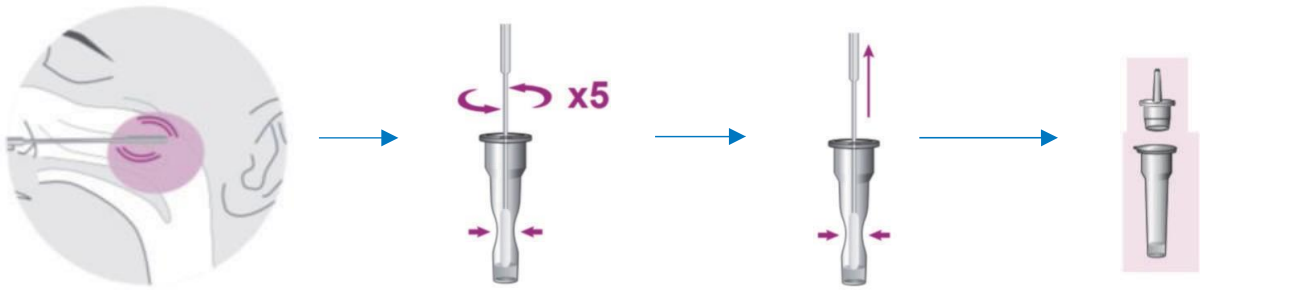
INTRODUCTION:
Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has become a major public health concern all over the world; early diagnosis is crucial for patient management and outbreak control. Most tests currently used for the detection of SARS-CoV-2 rely on viral RNA amplification by real-time PCR (RT-PCR) and require a few hours before result release. The SARS-Cov2 rapid antigen test is an important component of the testing algorithm for SARS-CoV 2 infection and improve efficiency of the testing strategy by reducing the turnaround time of results. In hospital settings, rapid antigen tests can contribute to better SARS-CoV-2 containment by identifying infected patients rapidly, leading to rapid segregation and isolation. Early evaluations of SARS-CoV2 antigen tests have demonstrated similar specificity to standard RT-PCR but lower sensitivity.

Although most antigen tests available in Pakistan are designed to be tested in nasopharyngeal specimens, an evaluation of the performance of the test in nasal or mid-turbinate swabs by the AKUH laboratory has shown comparable results and therefore this test is being offered in nasopharyngeal and nasal specimens.

TEST PRINCIPLE:
The SARS-CoV-2 Rapid Antigen Test is a rapid chromatographic immunoassay for the qualitative detection of specific antigens of SARS-CoV-2 present in the human upper respiratory tract, in individuals suspected of having COVID-19.

SPECIMEN COLLECTION, STORAGE AND TRANSPORT:
Nasal or nasopharyngeal swabs should be collected using swabs available at the AKUH laboratories. Nasal and nasopharyngeal samples collected in buffer tube should be transported within-1 h at 2-8^{o} C to the laboratory for testing (Please note that for nasal specimen both nostrils should be sampled with the same swab.)



1 NP/nasal swab

2 Partially peel cap; swirl swab >5 times

3 Squeeze tube; remove swab

4 Place Nozzle; place on rack in box

Lable tube and transport to lab IMMEDIATELY

PLEASE FILE FOR QUICK REFERENCE

LIMITATIONS:

- This is a qualitative test; therefore, quantitative values of SARS-CoV-2 antigen concentration cannot be determined.
- The immune response cannot be assessed with this test and needs other testing methods.
- The test result should not be used as a sole basis for treatment or patient management decisions, and should be considered in the context of the patient's recent exposures, history and the presence of clinical signs and symptoms consistent with COVID-19.
- A negative result may occur if the concentration of antigen in a sample is below the detection limit of the test or if the sample was collected or transported improperly. Therefore, a negative test result does not eliminate the possibility of SARS-CoV-2 infection. Should be confirmed by PCR, if necessary for patient management.

REJECTION CRITERIA:
Samples other than nasal and nasopharyngeal swabs. Samples older than 2 hours in buffer tube.

SCHEDULE AND REPORTING TIME:
The test will be performed daily (Monday to Sunday) and reported within 2 hours (buffer) after receiving sample in microbiology lab.