Automated Authentication Antigen Rapid Testing (ART) System

Abstract

This invention relates to an automated authentication system that reads the results of an antigen rapid test (ART) kit cassette (FIG 4) automatically, authenticate the ART process, validate the results and store them in an online or offline storage for audit purposes.

Currently, in the midst of the COVID-19 pandemic, government health agencies worldwide are encouraging the public to self-test for COVID-19 infection using Do-It-Yourself (DIY) Antigen Rapid Test (ART) kit. However, there is no way to authenticate the test is being done properly nor the results can be verified. Hence, ART tests are currently done either in a clinic or at a swab center where there are qualified swabbers on hand to authenticate the entire process and verify the test results. This process is time consuming and not ideal. Our invention aims to address these issues.

The invention provides a method to authenticate DIY ART test, verify the test results and validate the entire process to prevent frauds. The invention involves forming an exclusive close loop relationship with the unique identifier tagged to the test kit, the user identification and the test result. The invention addresses the validation of the test process and automating the delivery of the test result so that it is tampered free. The invention provides a non-editable electronic record by having a digital means of all data, the aforesaid proof that a user has taken the test along with the recorded video or photo of that user.

FIG 6