	Molecular Test - Lab	Molecular Test – Point of Care	Anti-Body Test
Summary	Golden Standard – This is what all hospital systems, health departments, and major commercial labs are using.	Future – This testing is going to be the standard in which you can test active viral cases real time, with high accuracy.	Adjunctive – As this test gets more specific for antibodies it will be great to understand who has HAD EXPOSURE to the disease.
Specimen Source	Swab - Nasopharyngeal	Swab - Nasopharyngeal	Blood Sample
Test Pathway	Real time reverse transcriptase polymerase chain reaction (rRT-PCR) Assay	Real time reverse transcriptase polymerase chain reaction (rRT-PCR) Assay	Serological & Antigen Assay
Test Processing	24 Hours to 1 week+	Point of Care 5 to 60 minutes	Point of Care 1 to 15 minutes
Test Target	Viral RNA	Viral RNA, Nucleic Acid (genetic information)	Antibody. Most make Antibodies 5-10 days post-infection.
Test Specificity	SARS-CoV-2 RNA	SARS-CoV-2 RNA	IgM and IgG in blood, plasma, and serum samples. Rapid Diagnostic Test (RDT), Enzyme linked Immunosorbent assay (ELISA), Neutralization assay
Virus Test	Yes – only detects virus that is present	Yes – only detects virus that is present	No – only detects antibodies and cannot detect the virus.
Vendors + FDA	• Hospital Labs • State Health Departments • Commercial Labs including Quest Diagnostics + LabCorp • Vault Health (saliva test)	• Cepheid Xpert SARS-CoV-2 (FDA) • Credo VitaPC R COVID-19 (Pending) • Microsens RapiPrep COVID-19 (FDA) • GenMark Diagnostics ePlex SARS-CoV-2 (FDA) • Mesa Biotech Accula SARS-CoV-2 (FDA) • Abbott ID Now COVID-19 (FDA)	• Cellex (FDA) RDT • ChemBio (FDA) RDT • VITROS (FDA) RDT • Multiple Vendors not FDA approved but used internationally
Viral Load	Yes – Amplification rate can be a proxy to understand viral load. More accurate	Yes – Amplification rate can be a proxy to understand viral load.	No – Viral load is not understood as it does not measure for Virus
Test Error	• Negative results could be attributed to a poor-quality sample or early disease	• Negative results could be attributed to a poor-quality sample or early disease	• Negative Result even though patient is/was exposed to virus • Positive Result even though patient is/was not exposed to virus
Test Accuracy	• 99%	• 99%	• 50-85%+ for FDA approved testing for IgG/IgM specific

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