



Technical Bulletin

Pooling Specimens for SARS-CoV-2 (COVID-19) Testing Enables DLS Capacity to Meet Demand for Weekly Testing

TO: Medical Staff and Clients

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SUBJECT: Pooling protocols increase capacity for SARS-CoV-2 (COVID-19) testing at DLS

Pooling will be performed as prevalence allows and demand dictates on specimens submitted in DNA/RNA Shield transport media. Using an aliquot from several individual specimens to create a pooled specimen is an established method for increasing laboratory capacity, and many test manufacturers have pooling protocols authorized by the FDA for emergency use (EUA). If a pool tests negative (Non-detected), all specimens that composed the pool are reported negative. If a pool tests positive (Detected), specimens are re-tested individually and resulted accordingly. FDA guidance indicates that pools of 5 specimens are desirable in many groups in which prevalence is expected to be low (e.g., periodic screening of asymptomatic individuals from athletic teams, in-person learning, unvaccinated employees, etc.).

U.S. Health and Human Services (HHS) recently awarded contracts to 4 geographical “hubs” to support return to school efforts, and all awardees employ pooling strategies. Hawaii belongs to the Western Hub, and DLS has an agreement with that contractor to provide local pooled testing services using their protocol on dry nasal swabs.

In anticipation of high demand for weekly testing in schools and among unvaccinated employees, DLS acquired automation and validated several processes for pooling specimens. The DNA/RNA Shield quickly inactivates microbes like SARS-COV-2, but also preserves nucleic acids, which PCR is designed to detect. This is compatible with test systems at DLS Central ONLY, and NOT with point of service test systems (e.g., Cepheid GeneXpert, Abbott ID Now, and Roche Liat). Also this media is NOT compatible for testing with BioFire Film Array multiplex panels or virus culture. The slight decrease in sensitivity is insignificant in true positive cases, and still is far superior to antigen tests with respect to sensitivity and throughput.

DLS-Guam has validated pooled testing with saline and universal transport media (UTM) to support international travel.

There are no changes to the test codes:

Test:	SARS-CoV-2 (COVID-19) performed at Central ONLY
DLS Order code:	7179 or 7223 (non-medical)
Specimen:	Nasopharyngeal, Oropharyngeal, or nasal swabs.
Transport/Stability:	Room Temperature (or refrigerated) for 72 HOURS or Frozen at -70°F
Turnaround time:	< 3 days (normally 12-36 hours from receipt in the lab) Clients will be notified of a “Detected” result

Please refer any questions to DLS Client Services at 589-5101 or Dr. Amy Woron, Manager - DLS Molecular Lab at 441-5436
