CPAL

Central **P**ennsylvania **A**lliance **L**aboratory

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Specimen Type Change: Hepatitis B Surface Antigen

CPAL Lab strongly recommends switching from serum to EDTA plasma for Hepatitis B Surface Antigen (HBsAg) testing. In the past two months, after we changed to the current HBsAg assay (the Ortho's HBsAg Test System 3.0), we were able to reduce the HBsAg screen positive rate. But the positive rate is still too high compared to our historical data. In addition to an increased positive rate, we also experienced technical difficulties in performing and interpreting the HBsAg confirmatory test in certain serum samples with low positive results. Per recommendation by the vendor, we changed the specimen type to EDTA plasma for donor HBsAg testing in mid-October. We tested 1499 serum samples and 2007 plasma samples for HBsAg in October. We found that the false positive rate was reduced after we switched to EDTA plasma. The statistics of the donor HBsAg test results for October is shown in the following table:

	Serum (Total=1499)	Plasma (Total=2007)
Screen Positive Rate	1.4 %	0.95 %
Repeatedly Reactive Rate	0.1 %	0.1 %
Confirmed Reactive	0 %	0.05 %

Some other labs using the same Ortho's HBsAg Test System 3.0 assay also found EDTA plasma improving their assay performance. Based on the results of testing data, we strongly recommend that EDTA plasma be the sample of choice. Other hepatitis testing can also be ordered on the same EDTA plasma sample. Serum samples will still be acceptable but, we prefer EDTA plasma samples.

Specimen Collection: Blood should be drawn into a 7 mL lavender top tube. The tube should be inverted 8 to 10 times immediately after collection to ensure complete mixing with EDTA. The plasma should be separated from the cell and stored at 2-8^0 C.

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