PATHOLOGY & LABORATORY MEDICINE - FEBRUARY 20, 2016

Reviewed by Clayton Wilburn MD, 3/15/2019

## Progesterone Results Falsely Elevated Due to Cross Reactivity with DHEA-S

The manufacturer of the progesterone assay used in the Chemistry Laboratory (Siemens Healthcare Diagnostics – ADVIA Centaur System) has notified us that the presence of DHEA-S that is used in some *in vitro* fertilization (IVF) protocols can cause falsely elevated progesterone results in their assay system. This can occur around a decision threshold of 1 ng/mL of progesterone. Cross reactivity is estimated to be about 0.01% so that a level of 5000 ng/mL of DHEA-S might cause an increase in measured progesterone from 0.21 ng/mL to 0.54 ng/mL. If progesterone levels are used as a criterion for fresh embryo transfer in patients supplemented with DHEA-S, levels should be assessed by methods that are not impacted by DHEA-S cross-reactivity such as LC-MS chromatographic analysis.

If you have any questions concerning this issue please contact Dr. Clayton Wilburn in the Laboratory.

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