

chem 700 and in the Cobas Bio analyzer, the latter with reagents from the S.V.R. Enzymatic Triglyceride Kit (cat. no. 869103; Behring Diagnostics, La Jolla, CA 92037). The original patient's sample proved to have a triglyceride concentration of 79.4 mmol/L.

The Ektachem results obtained up to 6.63 mmol/L were not flagged; concentrations between 6.63 and 60 mmol/L were flagged either with a > sign or "no result"; however, at concentrations above 60 mmol/L results <6.63 mmol/L were reported. The results clearly demonstrated that samples with triglyceride concentrations >60 mmol/L may potentially give spuriously low results when analyzed in the Ektachem.

Experienced laboratory staff will recognize that such results are inconsistent with the specimen's appearance. However, with the advent of this system, in particular the Kodak DT60 system, more and more non-laboratory staff members are operating these systems (1). In such cases, the spurious result may not be recognized, and consequent treatment may be inadequate or inappropriate.

Reference

1. Thomas DW, O'Leary TD, Geary TD. Utilisation and reliability of hospital side-room chemistry testing. *Ann Clin Biochem* 1987;24 (Suppl. 2):93.

Immunoradiometric Assay (IRMA) Monitoring of Perioovulatory Lutropin in Serum, M. Jan Gorrill, Mark V. Sauer, and John E. Buster (Dept. of Obstet. & Gynecol., Harbor-UCLA Medical Center, 1000 W. Carson St. D-3, Torrance, CA 90509)

In an immunoradiometric assay (IRMA) for lutropin (luteinizing hormone, LH) recently developed by RSL/Immuno-

chem Corp., Carson, CA, specific monoclonal antibodies directed against two distinct immunogenic sites of the LH molecule are used. The assay is used primarily to detect the preovulatory rise and peak of LH in serum as a predictor of ovulation time in women.

The usual way of detecting preovulatory serum LH is traditional RIA with a single ligand. Reports comparing results for serum LH by traditional RIA with those for urinary LH by enzyme-linked immunosorbent assay (ELISA), however, indicate differences in time and duration of the LH peak (1). Because the LH species detected by the RIA method may differ from that detected by IRMA, the onset and duration of the LH peak identified in serum by these two methods might also differ. We therefore compared results for serum by IRMA with those by RIA of serum sampled daily from normally ovulating women. Such samples were obtained from eight women over 10 ovulatory cycles beginning three to four days before the anticipated LH peak, and LH was measured by IRMA (Immunochem Corp.-Imm 2241) and by RIA (RSL-124). Both kits are calibrated by the supplier against WHO 1st IRP 68/40 LH reference preparation. For 42 samples analyzed by both methods, the correlation coefficient was 0.84. In 10 of 10 cycles the day of the LH peak, defined as the highest LH value detected, was on the same day for IRMA and RIA. For the paired samples, however, IRMA measured on average 38% higher than RIA ($P = 0.001$).

We conclude: (a) IRMA may be used as validly as RIA to identify the serum perioovulatory LH peak in daily samples but (b) serum LH values so obtained are 38% higher than those obtained by RIA, so clinical users must adjust their normal LH surge threshold values accordingly.

Reference

1. Knee GR, Feinman MA, Stauss JF, Blasco L, Goodman DBP. Detection of the ovulatory luteinizing hormone (LH) surge with a semiquantitative urinary LH assay. *Fertil Steril* 1985;44:707-9.