about 70 mL of blood from a woman volunteer in the luteal phase into plain tubes, pooled, mixed, and then aliquot-
ed 3–4 mL into seven plain Vacutainers and seven Serum Separator Tubes (Becton Dickinson, Rutherford, NJ). They were allowed to clot for 2 h, then centrifuged and stored with the serum on top of the gel or cells. Then, and each day for six days, serum was removed from a set of tubes, pipetted into clean glass tubes, and frozen. All the specimens were then thawed and analyzed simultaneously with the use of a progesterone kit (Diagnostic Products Corp., Los Angeles, CA). The results (Figure 1) demonstrate that the serum stored on gel has a 50% decrease in progesterone by the sixth day and that this decrease is linear with time. In contrast, no significant decrease was apparent when the serum was stored on cells for six days.

We did similar time-course studies with estradiol, cortisol, thyroxin, and triiodothyronine. None showed any decrease during six days of storage.

Evidently, there are very substantial decreases of progesterone when serum is stored on the gel and these decreases are proportional to exposure times.

Reference


Sandra Hilborn
John Krahn
St. Boniface Hospital
Winnipeg, Manitoba
Canada R2H 2A6

Rapid, Economical Immunoturbidimetric Method for Microalbuminuria

To the Editor:

Watts et al. (1) recently reported the performance of several methods for measurement of albumin in urine, including an immunoturbidimetric method. We have recently developed an automated immunoturbidimetric method for use in the Cobas Bio centrifugal analyzer (F. Hoffmann-La Roche Co. Ltd., Basle, Switzerland), using antisera from Dako Co. Ltd., U.K.

With this automated procedure we can use a smaller amount of antisera per test, 4 μL, and the turnaround time is considerably shorter. Our estimates of operating cost and turnaround time per 100 tests are £10.90 and 55 min, respectively, compared with £18.30 and 330 min quoted by Watts et al. (1).

(The pay scale of technologists is generally higher in Hong Kong than in the U.K.). The between-batch CV for our automated method is 5.0–6.7%, the assay range 2.5–80 mg/L.

The mean albumin concentration in random untimed urine specimens from 57 ostensibly healthy subjects was 4.2 (SD 3.4) mg/L, or 1.36 (SD 1.14) mg per millimole of creatinine.

We believe that our automated method is more suitable and economic for routine screening of microalbuminuria.

Reference


C. K. Cheung
R. Swaminathan
Dept. of Chemical Pathol.
Prince of Wales Hospital
Sha Tin, Hong Kong