cutoff values for CK-MB used in each study.

In conclusion, our assessment of the Isomune kit for estimating CK-MB demonstrated it to be methodologically precise and linear for the assay of CK-MB. The antibody used in the assay was remarkably specific for CK-MM, but values obtained with sera containing high total CK concentrations should be treated with caution. The large number of false-negative results described here suggests that the ion-exchange method is more sensitive for diagnosing myocardial infarction.

We thank Drs. Denis Rodgerson and Lester Layfield for their help in this project.

References

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Pseudochyluria Caused by Vaginal Cream

To the Editor:

Chyluria, the passage of urine containing lymph, is associated with obstruction to lymph flow and rupture of lymphatic vessels into the renal pelvis, ureter, bladder, or urethra (1, 2). The urine is milky in appearance and contains chylomicrons, very-low-density lipoproteins, and high-density lipoproteins (3). Although chyluria is extremely rare in North America, it is worthwhile to examine milky-looking specimens observed in Hawaii. J. Urol. 54, 318–347 (1945).

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Enzymatic Reaction-Rate Assay for Urinary Creatinine

To the Editor:

Jaynes et al. (1) have presented a kinetic method for creatinine determination in serum. They used an enzymatic test (Boehringer, Mannheim, F.R.G.) in which creatinine is converted to creatine by creatinine amidohydrolase.

We have adapted a kinetic assay for measurement of creatinine in urine. Because creatine, which can be present in the same order of magnitude in the sample as creatinine (2), reacts in the same way with the indicator system of the creatinine test (creatinine, pyruvate kinase, lactate dehydrogenase), we first examined its interfering effect. We found that a 5-min preincubation almost completely eliminates intrinsic creatine. Creatine (Fluka, Neu-Ulm, F.R.G.) added to water or normal urine at final concentrations between 0.25 and 4.0 g/L increased the measurable creatinine values by only 0 to 0.08 g/L.

For enzymic assays we used the kinetic analyzer ACP 5040 (Eppendorf, Hamburg, F.R.G.). All reagents were prepared as directed by the producer except that creatinine amidohydrolase (vial 4) diluted 11-fold with buffer (vial 1) was used as the starting reagent. A creatinine standard (2.0 g/L) was prepared by dissolving an appropriate amount of creatinine (Serva, Heidelberg, F.R.G.) in water or, for better stability, in “Precimat-Creatinine” solution (Boehringer).

The instrument settings were as follows: temperature 25 °C, cycle 30 s, filter 334 nm, adjust 0.0, standard 2.0, rotor 1, evaluation no. 0, wash position 18, start position 3, sample volume 5 μL, reagent volume 500 μL, start reagent volume 25 μL. Starting reagent was added after a 6-min preincubation. Measurements (ΔAA/min) were taken 1 min thereafter.

The reaction was linear up to at least 3.0 g of creatinine per liter. Reagent blanks were negligible, corresponding to <0.05 g/L. Within-run and day-to-day precision (CV) was 1.6–2.2% and 2.6–3.5%, respectively, measured at creatinine concentrations between 0.2 and 3.4 g/L.

The following substances known to