In the absence of microbiological peak PCT concentrations generally are <20 μg/L; therefore, values exceeding that limit can be regarded as a sign of infection even in this time period.

Regarding the serum PCT concentrations in newborn infants without infection, the data presented by Dr. Martin-Denavit and co-workers combine with those presented by another group (2) and our group to give a clearer picture of a physiological peak in serum PCT occurring between 12 and 36 h after birth. Physiological peak PCT concentrations generally are <20 μg/L; therefore, values exceeding that limit can be regarded as a sign of infection even in this time period.

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Influence of Age and Sex and Day-to-Day and Within-Day Biological Variation on Plasma Concentrations of Fatty Acid-binding Protein and Myoglobin in Healthy Subjects

To the Editor:
Fatty acid-binding protein (FABP), like myoglobin (Mb), increases significantly within ~3 h after onset of symptoms of acute myocardial infarction (AMI) and returns to health-related values within 12 to 24 h (1). For the early assessment or exclusion of AMI, FABP performs better than Mb (2, 3). Although FABP, like Mb, is also found in skeletal muscle, the distinct ratio of the contents of Mb over FABP in heart (ratio, 4–5) and skeletal muscle (ratio, 20–70) allows the discrimination between myocardial and skeletal muscle injury (4).

For the assessment of clinical reference values, it is important to know the possible influence of biological variations such as age, sex, and day-to-day and within-day fluctuations (5); however, for FABP such data are lacking. The aim of the present study was to establish these parameters for FABP first in a large group of volunteers of different ages. Mb was also measured to delineate possible effects of age and sex on the ratio of the plasma concentrations of Mb over FABP. We also studied day-to-day and within-day biologic variation (within-person) for both FABP and Mb concentrations in another group of volunteers.

For the first study, plasma samples were taken from 312 donors (110 women and 202 men; ages, 21–70 years) visiting the blood bank of Liège, Belgium. EDTA was added to samples to prevent clotting. For the study of within-person biologic variation, blood samples were obtained from young and apparently healthy volunteers (six men and six women; ages, 19–27 years) recruited from the student population of Maastricht University. Samples were obtained at the following time points: on day 1, at 0930, 1100, 1400, 1700, 2000, and 2300; on day 2, at 0300, 0700, 0930; and on days 8, 15, 22, 29, and 57 at 0930. Citrate was added to prevent clotting, and samples were immediately aliquoted and frozen at −80 °C until use. The study was approved by the medical ethics committee of the Academic Hospital Maastricht, and all subjects gave informed consent. FABP was measured with a sensitive noncompetitive sandwich-type ELISA (6), using recombinant human (heart-type) FABP as the calibrator (7). Mb was measured with a turbidimetric im-

References