or who are taking medications that may potentially interact with voriconazole.

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ASSessment of Procalcitonin Levels in Emergency Department Patients

Str—In a recent issue of Clinical Infectious
Diseases, Hausfater et al. [1] reported a prospec
tive study of the usefulness of procal
ctin as a marker of systemic infec
tion in emergency department patients.
We consider this to be a very important
topic, and we agree with the authors that
it is crucial for patient triage. However,
should procalcitonin be a criterion in making
decisions about whether to initiate
 antimicrobial treatment for emergency dep
artment patients, as Dr. Hausfater and
 colleagues imply in their article? Systemic
infec
tions that require immediate anti
microbial treatment are rare. The usual
indications for emergency initiation of an
 antimicrobial therapy are severe infectious
diseases, such as meningitis, or infections
that occur in a specific context, such as
 septic shock or fever during cytopenia.
Therefore, it may be more legitimate to
consider procalcitonin as a criterion for
determination of disease severity.

The report of Hausfater et al. [1] is of
great interest because it is the first to study
 prospectively the use of a procalcitonin
test in an emergency department. The au
tors demonstrated that procalcitonin is a
marker of systemic infectious disease, a
fact that had already been established for
critically ill patients. However, the poor
sensitivity of the procalcitonin test means
that the test falls short of detecting infec
tious diseases in emergency department
patients. By lowering the procalcitonin
cutoff point (to <0.2 ng/mL), the authors
increased the sensitivity of the procalcito
nin test. In the Discussion section of
their report, the authors emphasized the
usefulness of assessment of procalcitonin
levels in emergency department patients,
but they specified that further studies
would be required (in particular, to vali
date the procalcitonin cutoff point for
the adult population of an emergency
department).

Several issues are raised by this study.
As the findings of Hausfater et al. [1] sug
gest, intensive care unit patients and emer
gency department patients are not so dif
ferent with regard to markers of systemic
infectious disease. Results of studies of procalcitonin levels in critically ill patients
therefore could probably be applied to pa
tients in the emergency department. Our
experience shows that the results of pro
calcitonin tests can be obtained in a few
hours, but we do not know whether this
timing is realistic in an emergency de
partment. A rapid, simple, semiquantita
tive method may therefore be more suit
able in the emergency department [2].
Most importantly, we are not sure that the
cutoff point can be lowered to <0.2 ng/
ML, because a procalcitonin test result of
<0.5 ng/mL usually is considered to be
normal [3], and because functional sen
sitivity was 0.33 ng/mL in the study of
Hausfater et al. [1]. We were also surp
ised by the mortality rate for patients with
a procalcitonin level of >1 ng/mL, a rate
that greatly exceeds our own findings (severe
sepsis in >28 patients and a mean pro
calcitonin level of 7.1 ng/mL among sur
vivors) as well as the results of previous
studies [3, 4]. Finally, the difficulty in es
 tablishing a valid procalcitonin test cutoff
point for prognosis has been previously
demonstrated [5].

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Reply

Sir—We thank Dr. d’Escrivan and colleagues [1] for their reply to our article on the usefulness of procalcitonin as a marker of systemic infection in emergency department patients [2], and we will attempt to respond to their comments. We agree that, to date, no sufficient studies have been published to suggest that the procalcitonin level is the cornerstone criterion for initiation of antimicrobial treatment for emergency department patients. Because of the low sensitivity of the procalcitonin level for the diagnosis of systemic infection in our population of emergency department patients, we consider the procalcitonin level to be one of the multiple decision-making criteria leading physicians to initiation of antibiotic treatment. Moreover, we totally agree with first considering procalcitonin as a prognostic criterion, and we are persuaded that the procalcitonin level should be considered a major criterion in deciding whether to admit patients with sepsis to the intensive care unit.

We do not think that most infected patients in emergency departments should be compared with patients with sepsis in intensive care units, with regard to severity of infection. Indeed, patients admitted to the intensive care unit are selected on the basis of failure of ≥1 organ, so subjects with sepsis probably are admitted to the intensive care unit on the basis of a more intense systemic inflammatory response to infection. In the emergency department, there usually are no difficulties in identifying patients with obvious signs of severe sepsis (e.g., tachypnea, deterioration in mental status, and a decrease in systolic blood pressure). Such patients should be admitted to the intensive care unit solely on the basis of clinical data. On the other hand, a major challenge for emergency department physicians is to accurately identify infected patients who do not have severe clinical signs at the time of admission but who are at high risk for worsening of their clinical condition. For this group of infected patients, no current biological marker was available. Assessment of the procalcitonin level probably could help in determining the appropriate management of such patients. This is a major reason to propose lowering the procalcitonin cutoff point in the emergency department population, although we agree that a cutoff of 0.2 ng/mL should be further validated by other studies. We think that earlier identification of infected patients who have an infraclinical systemic inflammatory response, as indicated by slightly increased procalcitonin levels, should argue for rapid initiation of antimicrobial treatment and eventually should lead to a better outcome. However, this hypothesis has not been confirmed to date.

Finally, d’Escrivan et al. [1] questioned the mortality rate reported by our study for emergency department patients who had high levels of procalcitonin. This perfectly reflects the discrepancies between management of infected patients in emergency departments and management of infected patients in intensive care units. Two of 4 patients who ultimately died of systemic infection initially had not been admitted to the intensive care unit. Because procalcitonin test results were not available in real time during our study, we cannot exclude the possibility that knowing the procalcitonin level would have changed the initial patient assessment, the schedule for first injection of antimicrobial agents, and, finally, fatal outcome. However, this argues for the usefulness of procalcitonin levels determined in real time for emergency department patients. This could be achieved with currently available analyzers that give quantitative procalcitonin results in <1 h, rather than with the semiquantitative method.

Pierre Hausfater and Bruno Riou

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References

Straightening of the Hair Is Not Pathognomonic for HIV Infection

Sir—Straightening of the hair (the “straight hair sign”) has been observed in as many as 50% of black patients with HIV infection [1]. This phenomenon has been described both in symptomatic and asymptomatic individuals, often preceding the diagnosis of AIDS [1, 2]. The “straight hair sign” is now considered a hallmark of HIV infection, and, to our knowledge, it has only been reported in this patient population. Recently, we encountered a black patient without HIV infection who also had this clinical sign.

The patient was a 56-year-old black man who was admitted to the hospital with chronic pancreatitis and liver disease.