most rooms, and cleaning procedures strictly revised by an infection control nurse who performs weekly environmental cultures, focusing on the above-mentioned four groups of items. Furthermore, information on contamination rates and outbreak evolution are given regularly to ICU personnel. The evolution of the endemic over the next months will determine whether further drastic measures, such as a global structural redesign of our ICUs, must be carried out to control the outbreak.

REFERENCES
6. Boyle JM, Potter-Bynoe G, Chenevert C, PhD, Miquel Pujol, MD, PhD, Montserrat Sendra, RN, Carmen Peña, MD, PhD, Xavier Corbella, MD, Miquel Pujol, MD, PhD, Mª José Argerich, RN, Josefina Ayats, MD, Montserrat Sendra, RN, Carmen Peña, MD, PhD, Javier Ariza, MD, PhD, Hospital de Bellvitge Barcelona, Spain.

Is the European Interhospital Clonal Spread of Serotype O12 Pseudomonas aeruginosa Related to the Patients' Prolonged Carriage Duration?

To the Editor:
It has now been over 10 years since, officially, every French hospital has established its own Nosocomial Infection Control Committee (NICC), as well as its own Antifungal Chemotherapy Control Committee (AICCC). One of the main objectives of these mandatory creations was to limit the spread of infections with multidrug-resistant (MDR) bacteria. Simple and basic measures can help in reaching this objective: hand washing by healthcare providers before and after all patient contacts; screening, signaling, and isolating of MDR bacteria carriers, regardless of their symptoms; rational use of antibiotics; adequate sterilization of materials, etc. Over this last decade, the diffusion in our hospital of an MDR clone of serotype O12 Pseudomonas aeruginosa (P12) might illustrate the difficulties that our NICC and AICCC are meeting in the application of these basic measures.3

In the table, I indicate some ecological characteristics pertaining to the 1,046 P aeruginosa isolates that have been obtained from clinical specimens in our hospital over the last 7 years (June 1991-October 1998), as recorded in our computerized epidemiological expert system (SIR, I2A, Montpellier, France). The particular ecological characteristics of P12 in our hospital (Table) must be interpreted in light of the following facts: (1) Almost all of the P12 isolated in our hospital (and in some other hospitals in our neighborhood) are indistinguishable from the MDR European clone of P12 that seems to have spread throughout many different European hospitals. (2) In our hospital, our NICC and AICCC have not, so far, succeeded in convincing all of the wards (particularly, but not only, the long-stay wards) that the aforementioned basic measures must be systematically applied (in our opinion, it cannot be excluded that this reluctance might be a consequence of a "feudal system" possibly found in certain French medical institutions), and a similar situation is likely to be the case in some other hospitals in our area.

Because the epidemiological mechanisms possibly responsible for the clonal European interhospital spread of MDR P12 are not clearly understood at this time,4 we advise colleagues from affected hospitals to publish their own ecological data. Such reports (easily done with the help of SIR or any computerized expert system of this sort) might confirm (or not) our own ecological data, help in the designing of future intra- and interhospital epidemiological studies of P12 infections in hospitals where P12 has clonally spread, and thus perhaps eventually confirm (as has been suggested by others) that infected or colonized patients might be the primary reservoirs of the multiresistant European clone of P12.

REFERENCES

### TABLE

| Pseudomonas aeruginosa Isolates by Serotype: Number of Long-Stay Ward and Superficial Pus Isolates, Number of Patients, and Overall Carriage Duration (Calculated on the Whole Population of Patients) |
|---|---|---|---|---|---|
| Isolates | LSW Isolates | SP Isolates | Patients | Carriage Duration |
| O12 | 152/1,046 (15%) | 34/147 (23%) | 36/146 (25%) | 91/815 (11%) | 68±254 d |
| Non-O12 | 894/1,046 (85%) | 113/147 (77%) | 110/146 (75%) | 724/815 (89%) | 18±119 d |
| P | <.001 | <.001 | <.0001 | <.005 |

Abbreviations: LSW, long-stay ward; SP, superficial pus.
Vancomycin-Resistant Enterococci in Hemodialysis Patients: Is Related to Intravenous Vancomycin Use

To the Editor:  

In many hospitals worldwide, there has been an increase in vancomycin-resistant enterococci (VRE) colonization and infection in the use of intravenous vancomycin. To study the relation of parenteral vancomycin use to VRE colonization and infection, we prospectively examined our hemodialysis (HD) patient population, because vancomycin is frequently used for prophylaxis or treatment of staphylococcal infections in HD patients.15

The target population of the surveillance screening included all clinically stable HD patients dialyzed during 6-daytime shifts at the outpatient dialysis unit. Patients screened had been undergoing routine HD for a minimum of 3 months. Patients were excluded from analysis if their age was <18 years, if there had been a hospital admission in the prior month, if they did not consent to be studied, or if there was a known enterococcal infection in the previous year.

Rayon-tipped rectal swabs were obtained from 111 consenting HD patients immediately prior to dialysis treatment and were transported promptly to the microbiology laboratory in BBL culturette transport media (BBL Microbiology Systems, Cockeysville, MD). Specimens were planted promptly onto bile-esculin agar (BBL) and incubated at 35°C for up to 48 hours before being discarded as negative. Colonies developing a black to brown color were identified as enterococci, based on the pyrrolidonyl arylamidase disk test (PML Microbiologics, Tualatin, OR) and tolerance to 6.5% NaCl (BBL). Enterococcal isolates were tested for susceptibility to vancomycin by the standardized disk-diffusion procedure. A suspension of organisms equivalent to a McFarland 0.5 barium sulfate turbidity standard was prepared in trypticase soy broth (BBL) and swabbed onto the surface of a Mueller-Hinton agar plate (BBL).

In the year of follow-up, clinically relevant VRE infection developed in 3 (2.7%) of the 111 patients. During the year, there were 24 deaths, 6 patients received transplants, and 3 had incomplete follow-up. In total, there were 1,144 patient-months observed, yielding an incidence rate of 0.03 cases per patient-month. VRE infections included a sacral osteomyelitis in 1 patient, bacteremia in a second, and a peritoneal dialysis-associated peritonitis in a third. Of these 3 patients, 2 initially were VRE-negative and 1 was VRE-positive. Thus, 2 (1.9%) of the 101 patients who were VRE-negative subsequently developed a VRE infection, compared to 1 (10%) of 10 patients initially VRE-positive (not significant).

In summary, we found VRE rectal carriage in 9% of stable HD patients, with prior intravenous van-