tions, Ehrenkranz et al comment that ". . . prospective measures are costly, however, and this approach rarely is done even once at most hospitals."[1] I agree that evaluation of surveillance accuracy, an important job performance measure, tends to be done too infrequently. However, interdisciplinary collaboration enabled by a change in the use of infection control committee members' time provides a simple means to support prospective monitoring.[2] Decreasing the frequency of routine infection control committee meetings in exchange for assigning one "prevalence round" per year to each physician member permits continuing measurement of surveillance accuracy, builds collaborative relationships, provides ongoing educational exchanges, and can identify both problems and approaches to improve cases detection in the spirit of continuous quality improvement.[3] The ICP and an accompanying physician, on their annual turn, independently review every chart on a randomly selected ward and then compare their findings. Analysis of discrepancies and of cases not previously known to the surveillance system may improve performance of both the ICP and the system.

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REFERENCES

1. Ehrenkranz NJ, Shultz JM, Richter EI. Recorded criteria as a 'gold standard' for sensitivity and specificity estimates of surveillance of nosocomial infection: a novel method to measure job performance. *Infect Control Hosp Epidemiol* 1995;16:697-702.
2. Birnbaum D. Risk management versus infection control committees. *Dimensions in Health Service* 1981;58(12):16-19.
3. Birnbaum D, King LA. Disadvantages of infection surveillance by medical record chart review. *Am J Infect Control* 1981;9:15-17.

The authors reply.

We thank Dr. Birnbaum for his comments. His suggestion to permit each physician member to exchange the participation in one infection control committee meeting with attendance at an interdisciplinary surveillance accuracy "prevalence round" is very creative and probably highly effective in improving surveillance sensitivity and specificity at his hospital. Success in replicating such an activity elsewhere is likely to depend on the availability of knowledgeable physicians members who, in fact, do attend meetings regularly and are willing to set aside the necessary time to carry out the "prevalence round" as intended.

Several years' experience appears to be required for infection control practitioners (ICPs) to develop proficiency at the Florida Consortium for Infection Control; this may well reflect the period necessary for their acquiring facility in skills of time management and networking with other hospital personnel, who act as referral sources of possibly infected patients, as well as for becoming familiar with application of criteria of infection. In a number of instances, it seems that, as a consequence of increasing burdens currently being placed on ICPs, surveillance receives a lower priority, and established accuracy falls concomitantly. Repeated use of recorded criteria as the "gold standard" of surveillance accuracy then serves to distinguish between what the ICPs are capable of doing and what they actually accomplish.

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Is Expressed Breast Milk From Home Safe? A Survey From a Neonatal Intensive-Care Unit

To the Editor:

Human milk is the preferred diet for newborn infants. For infants in neonatal intensive-care units (NICUs) whose mothers may have been discharged from the hospital, it may be appropriate to provide fresh or stored raw human milk brought by the mother from home. We carried out a microbiological examination of 139 consecutive samples of expressed breast milk (EBM) brought from home by 24 mothers during a study period of 1 month. Mothers completed a questionnaire for each sample about the various aspects of breast milk expression, collection, storage, and transportation.

Prior to discharge, the nursing staff gave all mothers detailed instructions regarding hygienic practices needed while expressing, storing, and transporting EBM to the hospital. This was reinforced by a printed pamphlet. Sterile, sealed, empty bottles were supplied for collection. On request, sterilized manual breast pumps were supplied.

Using sterile syringes, milk was obtained and sent for culture from each sample brought in. An average of 5.8 samples per mother were studied. Twenty-two of 24 mothers had understood the instructions given in the postnatal ward. One mother expressed milk manually (six samples); the remaining 23 used the pump. The interval between expression of milk and delivering it to the NICU ranged from 1 to 8 hours. Mothers differed in their practices regarding cleaning of breasts, procedures for maintaining hygiene of the pump, and the mode of milk storage (Table 1).

Of the 24 mothers, there was only one (who had supplied two samples) from whose EBM no bacteria were isolated. The remaining 23 (95%) had bacterial growth from at least one of the samples. Twelve mothers (52.2%) had only nonpathogenic bacteria isolated, and 47 EBM samples (34%) from 11 mothers (46%) grew a mixture of nonpathogens and potential pathogens (Table 2).

We found potential pathogens from one third of the breast milk samples sent for qualitative culture. This is a higher prevalence than reported from previous studies.[1,2] It is somewhat reassuring that large studies have not found adverse events that could be directly related to ingestion of bacteria in raw breast milk,[2] nor did we observe any. Routine milk screening programs have not shown any benefit. However, infants in NICUs have low levels of immunity and are easily susceptible to infection, and common sense suggests it is preferable not to feed potentially pathogenic bacteria that could colonize the gut and lead to bacteremia. Pasteurization of breast milk has been practiced in several milk banks, but there is no doubt that it influences and alters the lymphocyte and antibody content of human milk.[3]

Studies have shown that simple but adequate cleansing of breasts lowers the incidence of contamination.[4] In addition, breast pumps could be a potential source of contamination. We recommend that educating mothers in proper techniques of expressing, handling, and transporting breast milk should be emphasized. Expressed breast milk should be stored at 3°C to 4°C if it is to be used