Letters to the Editor

Aspergillosis Results Questioned

To the Editor:

I read with considerable interest and appreciation the report on "Nosocomial Aspergillosis in Patients with Leukemia Over a Twenty-Year Period" (1989; 10:299-305). After a thorough perusal of the data, it seems that there is a fairly major discrepancy between the data outlined in the section of the text describing aspergillosis in bone marrow transplant (BMT) recipients versus non-BMT recipients (1978-1983) and the data presented in Table 2.

The text in this section states "The greatest number of bone marrow transplants in leukemia patients took place in 1981 (18 patients), followed by 1982 (13 patients), 1983 (nine patients), 1978 (five patients), 1979 (four patients), and 1980 (four patients)." The text further states that during the years 1978 through 1983 "there were seven cases of invasive aspergillosis in BMT recipients-four cases in 1983, two cases in 1982 and one case in 1978." This gives us a total of seven cases in 53 patients.

Table 2 is labeled "Incidence of Aspergillosis in Bone Marrow Transplant Recipients and Non Bone Marrow Transplant Leukemia Patients at RPMI From 1978 to 1983." The denominator used for calculating the number of aspergillosis cases per 100 BMT recipients for each of the years should be the number of bone marrow recipients per year. If the data given in the text (quoted above) is used to construct Table 2 it should look like this:

	1978	1979	1980	1981	1982	1983	6-Year Incidence
All five types	BMT	BMT	BMT	BMT	BMT	BMT	BMT
Number of cases/ 100 patients	20 (1/5)	0 (0/4)	0 (0/4)	0 (0/18)	15.4 (2/13)	44.4 (4/9)	13.2 (7 cases/53 patients)

It is not clear whether the authors have used the number of transplants as a denominator to determine the number of cases per 100 patients per year. If they have, the table should be labeled to reflect this. If this is the case, the information in the table is still discrepant with that which appears in the text. The part of the text when added up (quoted above) gives 53 patients receiving bone marrow transplants, whereas another portion of the text states there were 53 bone marrow transplants in 52 patients. In order to arrive at the figures derived by the authors in Table 2 the denominators used for 1978, 1982 and 1983 would have had to have been 6, 22 and 11 respectively. If we assume that these are the number of bone marrow transplants in these years and we consult the text to determine the number done in 1979, 1980 and 1981, it appears as though there were the following number of transplants done: 1978 (six), 1979 (four), 1980 (four), 1981 (18), 1982 (22), 1983 (11). This gives a total of 65 transplants, not 53 as stated in the text.

This paper represents a singularly fine contribution to the epidemiology of aspergillus infection in the bone marrow transplant patient. It is not at all difficult to imagine how the numbers in Table 2 may have become misarranged when one considers the enormous amount of data to be managed. Perhaps the authors could shed some light on the construction of Table 2 as it relates to the text?

Georgia P. Dash, MS, CIC
Philadelphia, PA

Coleman Rotstein, MD, Linda L. Klimowski, MS, MT (ASCP), CLS (NCA) and K. Michael Cummings, PhD, MPH were asked to respond to this letter.

We would like to clarify any misconceptions which Ms. Georgia P. Dash had about the article written by Klimowski, et al.' There were indeed 53 bone marrow transplants performed on 52 patients with leukemia. One patient who had chronic myelogenous leukemia was transplanted twice. The distribution of the patients' underlying diseases was as outlined in the text. The number of transplants performed between 1978 and 1983 was also correctly stated in the text: 1978 (five transplants), 1979 (four transplants), 1980 (four transplants), 1981 (18 transplants), 1982 (13 transplants) and 1983 (nine transplants), for a total of 53 bone marrow transplants. Seven cases of invasive aspergillosis occurred in the bone marrow transplant recip-

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ients: four cases in 1983, two cases in 1982 and one case in 1978. Thus, there were a total of seven cases among the 53 transplant recipients.

The data presented in Table 2 are in fact correct. Any apparent discrepancy can be explained on the basis that care of the transplant patients often overlapped from one year to the next and patients were often admitted more than once in the six-year period, therefore contributing days at risk for two or more years. Thus, more patients than were actually transplanted in a particular year were included in the data analysis. This inflated the total number of patients at risk for that particular year. Therefore, the denominator figure representing the annual number of patients at risk would be larger than one might expect. Indeed this lowered the incidence rate.

We hope this explanation clarifies any misconceptions or doubts which existed about the data. The authors greatly appreciate Ms. Dash's careful perusal of the data.

Coleman Rotstein, M.D.
Linda L. Klimowski, MS, AT(ASCP), CLS(NCA)
K. Michael Cummings, PhD, MPH
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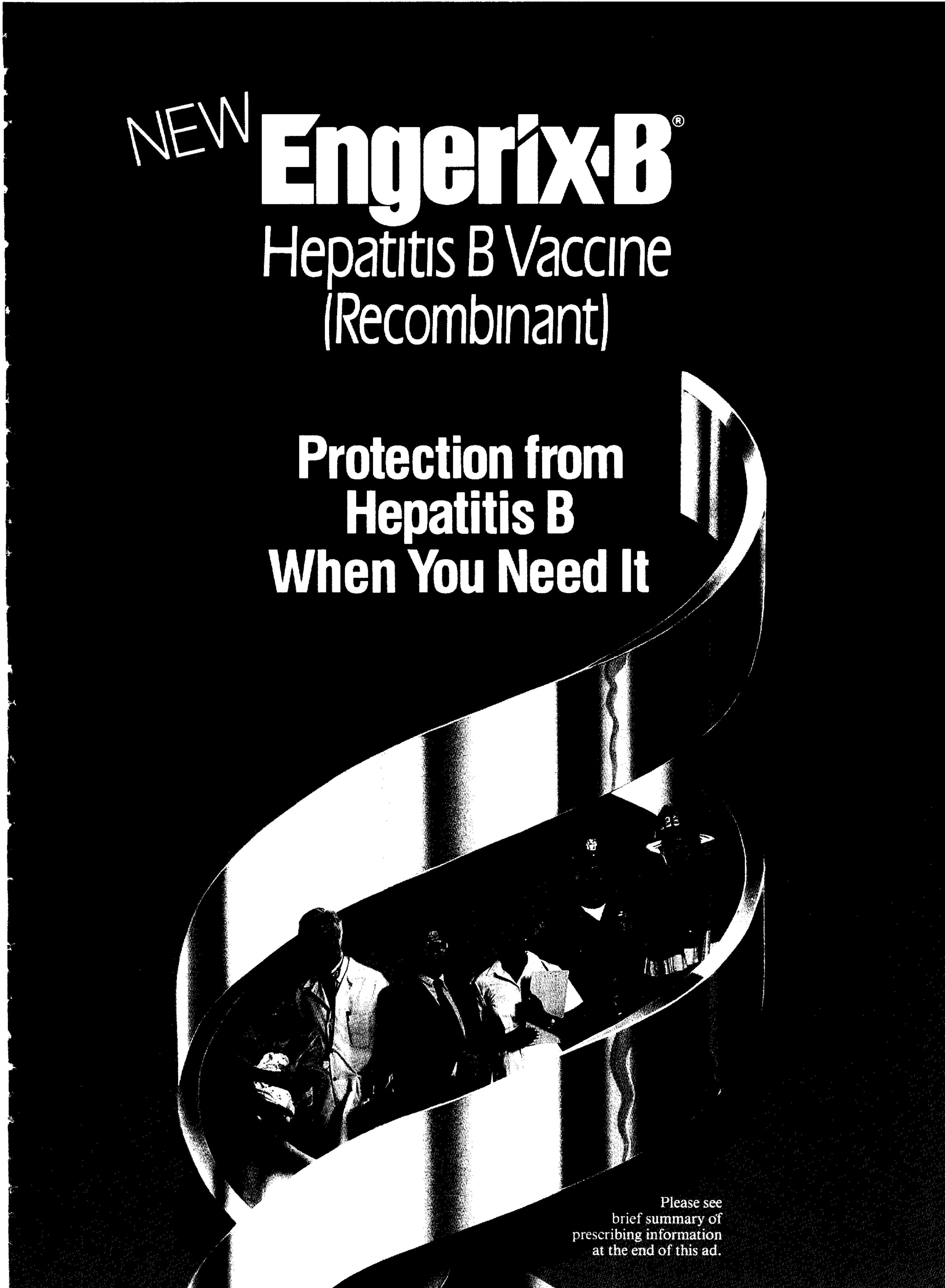
REFERENCE

1. Klimowski LL, Rotstein C, Cummings KM. Incidence of nosocomial aspergillosis in patients with leukemia over a twenty-year- period. *Infect Control Hosp Epidemiol.* 1989; 10:299-305.

Letters to the Editor should be addressed to INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY Editorial Offices, C41 General Hospital, University of Iowa Hospitals and Clinics, Iowa City, IA 52242. All letters must be typed, double spaced and may not exceed four pages nor include more than one figure or table. The editors reserve the right to edit for purposes of clarity or brevity.



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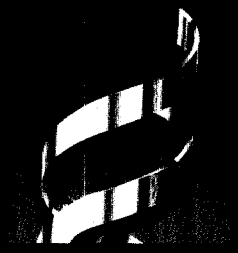

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Nursing Mothers: It is not known whether 'Engerix B' is excreted in human milk Because many drugs are excreted in human milk, use caution when giving 'Engerix-B' lo a nursing woman

Pediatric Use: 'Engerix-B' has been shown to be well tolerated and highly immunogenic in infants and children of all ages Newborns also respond well, maternally transferred antibodies do not interfere with the active immune response to the vaccine

ADVERSE REACTIONS: 'Engenx B' is generally well tolerated During clinical studies involving over 10,000 individuals distributed over all age groups, no sews adverse reactions attributable to vaccine administration were reported As with any vaccine, however, it is possible that expanded commercial use of the vaccine could reveal rare adverse reactions not observed in clinical studies

Ten double blind studies involving 2,252 subjects showed no significant difference in the frequency or severity of adverse experiences between 'Engerix-B' and plasma-dewed vaccines In 36 clinical studies a total of 13,495 doses of Engerix-B' were administered to 5,071 healthy adults and children who were initially seronegative for hepatitis B markers and healthy neonates. All subjects were monitored for 4 days post administration Frequency of adverse experiences tended to decrease with successive doses of 'Engerix B' Using a symptom checklist,* the most frequently reported adverse reactions were injection site soreness (22%). and fatigue* (14%) Other reactions are listed below

Incidence **1%** to **10%** of Injections: Induration; erythema; swelling; fever (> 37 5°C). headache', dizziness *

'Parent or guardian completed forms for children and neonates Neonatal checklist did not include headache fatigue or dizziness

Incidence < **1% of** Injections: Pain; prurilus; ecchymosis; sweating malaise; chills; weakness, flushing; tingling; hypotension; Influenza like symptoms; upper respiratory tract illnesses; nausea, anorexia; abdominal pain/cramps vomiting; constipation; diarrhea lymphadenopalhy, pain/stiffness in arm, shoulder or neck, arthralgia myalgia; back pain; rash, urticaria, petechiae; erythema; somnolence, insomnia irritability; agitation

Additional adverse experiences have been reported with the commercial use of 'Engenx B' outside the United Slates Those listed below are to serve as alerting information lo physicians Anaphylaxis; erythema multiforme including Stevens Johnson syndrome, angioedema; arthritis; tachycardia/palpitations bronchospasm including asthma-like symptoms, abnormal liver function tests, migraine; syncope; paresis; neuropathy including hypoesthesia paresthesia, Guillain Barre syndrome and Bell's palsy transverse myelitis; thrombocytopenia eczema, purpura. herpes zoster; vertigo, conjunctivitis; keratitis; visual disturbances

Potential Adverse *Expenences* In addition certain other adverse experiences not observed with 'Engerix-B' have been reported with Heptavax-B®† and/or RecombivaxHB®‡ Those listed below are to serve as alerting information to physicians Optic neuritis

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† plasma-dewed. Hepatitis B Vaccine, MSD
‡ yeast dewed. Hepatitis B Vaccine, MSD

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Date of Issuance Aug 1989

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1. **Poovorawan Y, Sanpavat S, Pongpunlert** w, et al: Protective efficacy of a recombinant DNA hepatitis B vaccine in neonates of **HBe** antigen-positive mothers. *JAMA* 1989; **261(22):3278-3281. 2.** Based on published prices, August 1989.