Viral Hepatitis in the United States Army

ROBERT J. CHLOUPEK1 AND JOHN M. McLEAN2

Office of the Surgeon General, Department of the Army, Washington, D. C. 20310

Received December 29, 1975

Historically in times of war, viral hepatitis has been a serious threat to the health of the soldier. Even now during relative peace, it continues to be an important cause of disability. The objectives of this overview are to present the current trends of viral hepatitis in the United States Army and to discuss briefly current reporting systems.

Within the United States Army, the viral hepatitis rate has shown a sevenfold increase since the mid-1960's, rising from a rate of 0.8/1000/year in 1964 to over 5.5/1000/year in 1974. Figure 1 illustrates the phenomenon quite dramatically. More than 4100 cases of viral hepatitis occurred throughout the Army during 1974. This represents over 100,000 noneffective days.

Troops stationed in Europe (USAREUR) have been the single greatest contributor to the viral hepatitis rate in the Army for the past 4 years. While a much more gradual rise has occurred in troops stationed in the United States (CONUS), the rate in Europe has risen sharply and declined somewhat, to appear at a rate seven times higher than in 1971 before the outbreak (Fig. 2). An increase in parenteral drug usage among military troops is theorized to be the cause for this rise in hepatitis [1].

In troops stationed in both the United States and Europe, the ratio of the rate of hepatitis A to B in 1974 was approximately one to one (Table 1). This compares with a ratio of six to one in civilian cases in 1973 reported by the Center for Disease Control (CDC) [2]. This discrepancy can be partially explained, first, by differences in the rate of reporting in the two populations. In the Army, the reporting of hepatitis is essentially 100%. CDC indicates that only about 10–25% of the cases of hepatitis are reported [3], while the ratio of reported to total cases of hepatitis in the civilian population is estimated to be approximately one in five according to the Symposium on Viral Hepatitis, National Academy of Sciences [4]. Second, these ratios can be compounded by the large differences in the age distribution of the civilian and military populations. The majority of military personnel in the Army are in their twenties. It is this age group among the civilian population that shows the highest incidence of hepatitis B. Thus, the Army does not have the diluting effect of large numbers of younger and older individuals.

The data for 1974 and 1975 have been obtained using a new reporting system developed this past year, but, until adequate time for comparative evaluation is completed to ensure validity, the data must be viewed cautiously.

Our new system was instituted in January 1974 as an interim change to the International Classification of Diseases (ICDA) and is demonstrated in Table 2. These changes should facilitate epidemiologic study of viral hepatitis at a time when old definitions are unclear. The new reporting system places emphasis on reporting

1The Communicable Disease Control Consultant, Office of The Surgeon General, Department of the Army, Washington, D. C.
2The Epidemiologist, Health and Environment Division, Office of The Surgeon General, Department of the Army, Washington, D. C.
FIG. 1. Viral hepatitis in the Army, worldwide. Rates, cases per 1000 average strength per year for 1964–1974.

FIG. 2. Viral hepatitis in the Army, worldwide, CONUS, and USAREUR. Rates, cases per 1000 average strength per year for 1964–1974.

TABLE 1
Viral Hepatitis in the Army: USAREUR, CONUS, Worldwide (1974) *

|                      | USAREUR | CONUS | Worldwide |
|----------------------|---------|-------|-----------|
| Hepatitis A          | 5.41    | 1.51  | 2.58      |
| Hepatitis B          | 5.20    | .94   | 2.07      |
| Hepatitis not otherwise specified | 1.73    | .24   | .80       |

*Source, IPDS data retrieval program NR 740905.
TABLE 2
Hepatitis Coding

| Code | Description                                           |
|------|-------------------------------------------------------|
| 0700 | Viral hepatitis A, AU antigen negative                 |
| 0701 | Viral hepatitis A, AU antigen test not performed       |
| 0705 | Viral hepatitis A, AU antigen/antibody positive        |
| 0706 | Viral hepatitis B, AU antigen test negative            |
| 0707 | Viral hepatitis B, AU antigen test not performed       |
| 0709 | Viral hepatitis, not otherwise specified               |
| 5730 | Hepatitis, nonviral                                    |
| 9992 | Viral hepatitis due to complication of medical treatment|

All 070 codes will carry supplementary drug code (3040 or 3049 series) or one of the following codes if no current history of drug abuse
Y193, history of opiate or synthetic morphinelike analgesic within past 8 months
Y194, history of other drug abuse within past 8 months
Y195, no history of drug abuse within past 8 months

TABLE 3
Viral Hepatitis in the Army: USAREUR, CONUS, Worldwide (1974)*

|            | USAREUR | CONUS | Worldwide |
|------------|----------|-------|-----------|
| Cases      | 2502     | 1398  | 4177      |
| Rate b     | 12.36    | 2.93  | 5.48      |

*Source, IPDS data retrieval program NR 740905.
Rate, cases/1000 average strength/year

antigen testing data. It also makes the distinction between the specific diagnosis of viral hepatitis, or one of its subgroups, from the diagnosis of drug abuse.

A refinement in reporting of diseases, called the Command, Area, Station, Health Report (CASH) was initiated in January, 1976. More detailed information on the location of cases of viral hepatitis will be provided by the breaking down of theater area data into local areas by a single reporting system. This will provide more detailed information with which to evaluate the epidemiology of hepatitis in the Army more accurately.

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