Current Status of Rheumatic Fever Control Programs in the United States

EDWARD L. KAPLAN, MD

RHEUMATIC FEVER REGISTRIES, as indicated by previous studies, often do not accurately reflect the current incidence and epidemiology of acute rheumatic fever because of significant over- and underreporting (*1, 2*). Apparently this situation is due to diagnostic errors by physicians and the failure to verify cases at the time of enrollment in the registry. Because of these problems of accurate data collection, recent impressions suggesting a decline in the incidence of acute rheumatic fever have been questioned. Following reports of the discontinuation of rheumatic fever control programs by several State health agencies, we attempted to document the extent of this trend and to define the reasons for these decisions.

Methods

Twenty-nine States that had reported rheumatic fever control programs (registries or other State health department programs providing antibiotics free or at reduced cost) in 1977 were identified with the assistance of David Fraser, M.D., Center for Disease Control (*3*). The following questionnaire, containing eight items, was mailed to each of the 29 State health departments in late 1979. Completed questionnaires were returned for analysis.

1. Is acute rheumatic fever or rheumatic heart disease a reportable disease in your State?
2. Has your State had a rheumatic fever registry within the past 5 years?
3. Is this registry still in operation?
4. If the program has been discontinued within the past 5 years, could you please summarize why the program was discontinued?
5. If the program has been discontinued recently, was it related to funds available through section 314D of Public Law 95–626 (*4*)?
6. Within the last 5 years, has your State participated in a program to provide prophylactic antibiotics at reduced cost to patients with rheumatic fever or rheumatic heart disease?
7. Is this program still in operation?
8. If the program has been discontinued, could you please state why it was discontinued?

Results

Completed questionnaires were returned by 27 (93 percent) of the 29 States. Of the 27, 23 States (85 percent), indicated that rheumatic fever remained a reportable disease. Eighteen (67 percent) of the 27 States reported having operational rheumatic fever registries within the past 5 years; however, only 11 (61 percent) of these 18 indicated that the registries were still operational. Thus, only 41 percent of the 27 States had an operational registry. One State planned to discontinue its functioning registry within the next year. Essentially all States that reported discontinuation of their registries related it in some way to a lack of adequate financial resources for this type of public health program—half of these States directly attributed discontinuation to the lack of section 314D funds (Public Law 95–626).

The provision of prophylactic antibiotics for secondary rheumatic fever prophylaxis (free or at reduced cost) within the past 5 years was reported by 20 (75 percent) of the responding States; 13 (65 percent) of these reported that this aspect of the program was still in operation.

Discussion

The data from this study indicate that since 1974 more than one-third of the existing rheumatic fever registries and control programs in State health departments have been discontinued. This survey may not be totally representative of the current status of rheumatic fever registries in the United States, since the States that did not have registries when the McCormick-Fraser study (*3*) was done in the mid-seventies were not asked if they had since initiated a program.

The reasons given most often for discontinuation of rheumatic fever control programs were (*a*) an apparent decrease in the incidence of the disease (based on cases reported to the State health department) and (*b*) budget constraints in financially pressed State health departments. Since previous studies have indicated the

Tearsheet requests to Edward L. Kaplan, MD, Box 94, Mayo Bldg., University of Minnesota School of Medicine, 420 Delaware St., SE., Minneapolis, Minn. 55455. *This study was supported by the Dwan Family Fund.*

inaccuracy of reporting systems for rheumatic fever (*1, 2*), the data base for these decisions is questionable.

The data from this survey suggest that potentially effective public health programs in preventive medicine can be discontinued for inadequately documented reasons. Rheumatic fever and rheumatic heart disease are theoretically preventable cardiovascular diseases. While it is likely that the incidence of acute rheumatic fever has been decreasing in the United States during the past 2 or 3 decades, the reasons remain unexplained (*5, 6*). Part of the explanation may relate to evidence suggesting a change in the epidemiology of this disease. Seemingly, rheumatic fever is now more likely to be found among socially and economically disadvantaged populations (*7*) who traditionally have been medically underserved.

The recognition of the importance of diagnostic errors and a lack of accurate reporting of cases of rheumatic fever support a need for rheumatic fever and streptococcal control programs to adequately assess this new epidemiology. Perhaps the rheumatic fever registries of 20 years ago are not necessary in all U.S. communities in the 1980s, but a convincing argument can be made for registries and control programs that primarily identify populations with a high incidence of the disease—such as in urban ghettos (*7*)—and assist in formulating public health programs for the control of streptococcal infections and their sequelae, including both primary and secondary prophylaxis of rheumatic fever. This view also has been expressed recently by McQueen (*8*).

The effect of specific congressional action on health care programs at the State level is a special concern. The recent reduction of available 314D funds that were used in many States for rheumatic fever programs, as well as for other cardiovascular disease programs, was specifically cited by approximately one-half of the States which have discontinued or were planning to discontinue their rheumatic fever control programs. This situation suggests a need for more careful impact studies by Federal legislators.

It has been documented that primary prevention of rheumatic fever (treatment of streptococcal sore throat) and secondary prevention of rheumatic fever (continuous prophylaxis for patients with previous attacks of rheumatic fever) are effective methods for reducing the attack rate and the morbidity and mortality attributed to these diseases. The trend toward discontinuation of these programs by State health departments, therefore, requires careful scrutiny before final decisions are made.

References

1. Dahl, D., Bessenger, F. B., and Kaplan, E. L.: Rheumatic fever in Minnesota. Current assessment of reported cases. Minn Med 61: 249–254 (1978).
2. Rice, M. J., and Kaplan, E. L.: Rheumatic fever in Minnesota. II. Evaluation of hospitalized cases and utilization of a State rheumatic fever registry. Am J Public Health 69: 767–771 (1979).
3. McCormick, J. B., and Fraser, D. W.: Disease control programs in the United States—control of streptococcal and post streptococcal disease. JAMA 239: 2359–2361 (1978).
4. The Health Services Extension Act of 1978. P.L. 95–626. Presidential approval, Nov. 10, 1978.
5. Kaplan, E. L.: Acute rheumatic fever. Pediatr Clin North Am 25: 817–829 (1978).
6. Stollerman, G. H.: Rheumatic fever and streptococcal infection. Grune and Stratton Academic Press, New York, 1975.
7. Gordis, L.: Effectiveness of comprehensive-care programs in preventing rheumatic fever. N Engl J Med 289: 331–335 (1973).
8. MacQueen, J. C.: State registries and the control of rheumatic fever. Am J Public Health 69: 761–762 (1980).

SYNOPSIS

KAPLAN, EDWARD L. (University of Minnesota School of Medicine): *Current status of rheumatic fever control programs in the United States. Public Health Reports, Vol. 96, May–June 1981, pp. 267–268.*

A study was undertaken to assess the current status of rheumatic fever control programs administered by State health agencies. Questionnaires, sent to 29 State health departments that had been identified previously as having rheumatic fever control programs, were completed by 27. Only 11 (61 percent) of the 18 States with a registry in 1977, or 41 percent of those replying, indicated that the registry was operational in 1980. A lack of adequate funds was cited by all States as a reason for discontinuing the program. Half of the States that closed down their registries related this to loss of funds previously provided by Section 314D funds (Public Law 95-626). Two-thirds of the replying States indicated, however, that they still provided prophylactic antibiotics for secondary rheumatic fever prophylaxis, free or at a reduced cost.

Previous studies have indicated that rheumatic fever registries operated by State health departments inaccurately reflect the actual incidence and epidemiology of this sequel of group A streptococcal infections. Since a decreasing incidence of the disease, as reported to registries, was a primary reason for discontinuing the registries, the author concludes that a potentially effective public health program in preventive medicine can be discontinued for inadequately documented reasons.