TONSILLECTOMY IN MANITOBA: WHO ARE THE PATIENTS? THE SURGEONS? THE HOSPITALS?

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ABSTRACT: Although tonsillectomy-adenoidectomy rates are declining across North America, this paper suggests they are not falling fast enough. More than half the cases coming to surgery fail to meet accepted standards regardless of who performs the surgery, or where it takes place. Family surgery is still fairly common and is almost never indicated. While younger physicians have higher standards of selection, they are not doing any less T and A surgery than their older colleagues; in fact younger general surgeons are doing more. This study concludes that nonindicated T and A surgery is still a prevalent problem, deserving of widespread attention.

Despite the decline in rates over the last few years, tonsillectomy/adenoidectomy (T and A) remains the most frequently performed surgical procedure in North America. In 1973 alone, more than 1.1 million operations were performed in the United States and Canada. Lack of agreement on indications for surgery as well as benefits to be derived from it continue to make the T and A procedure a controversial subject among physicians and researchers.

Gauging the effectiveness of this surgical procedure has been the object of numerous investigations. Shaikh and his colleagues, after a review of 29 separate studies spanning the time period 1922-1970, concluded that current data do not tell us whether or not the procedure is beneficial.1 Those involved in the ongoing clinical trial at Pittsburgh2 argue that earlier conclusions concerning T and A’s ineffectiveness may have resulted because children with mild or doubtful indications were included in the studies. Although they have tried to resolve the shortcomings of previous research by imposing stringent requirements for patient selection, one of their major problems has been finding children with enough episodes of respiratory disease in a given year to qualify them for surgery; fully 60% of those referred to them do not meet the trial’s criteria. This is consistent with research in Seattle3 and Manitoba4 suggesting that the vast majority of children selected for tonsillectomy and adenoidectomy do not have histories of respiratory disease that conform to standards recommended by medical authorities.

There have been direct attempts to influence surgeons’ decisions. Wennberg5 and others have been successful in lowering Vermont’s T and A rate.
following the feedback of data to the State Medical Society that demonstrated the wide variation in surgery across hospital service areas.

Given the high proportion of patients coming to surgery without standard indications, and the general concern with the lack of effectiveness of this surgical procedure, it is important to understand the conditions under which T and A surgery is performed. This paper examines the practice of T and A—the characteristics of patients chosen, of physicians who perform the surgery, and the types of facilities in which they are done in one province of Canada during 1973.

Manitoba is an appropriate site in which to raise these questions since the number of operations performed there is not unusually high. In fact, in 1973 this province had one of the lowest T and A rates in Canada: 107.2 surgical procedures per 10,000 population in the age group 14 years and under. The 1971 U.S. annual rate for this same group was 128.3 procedures per 10,000. The Manitoba data are similar to that of the rest of North America with regard to the frequency of the three surgical procedures. In 1973 in Manitoba, tonsils alone were removed in 38% of the cases, both tonsils and adenoids in 63%, and adenoids alone in 10% of the cases. The national figures for Canada in 1973, when 184,000 T and A procedures were performed, are 27%, 69%, and 5%, respectively. In the same year, there were an estimated 1,019,000 T and A procedures in the United States; of these, 22% were tonsillectomies, 73% adenotonsillectomies, and 5% adenoidectomies. In Manitoba, as in Canada and the United States, the rate for the combined procedure fell in the period from 1969 to 1973, while that for adenoidectomy rose.

**METHODS**

Universal hospital and physician insurance programs have been operating in the province of Manitoba since 1958 and 1969, respectively. Data for this study came from claims filed with the Manitoba Health Services Commission. Claims data are organized into hospital, medical, and registration files that are maintained separately with no routine record integration. Unique patient and physician numbers, however, allow individuals to be identified across the system; thus it is possible to link claims on patients (all instances of care received from various physicians and in various hospitals over time), or on physicians (all care rendered over time).

An intensive investigation into the quality of data taken from health insurance claims has revealed that the data provide an accurate, reliable, and valid representation of the physician's assessment of his patients. Interphysician and intraphysician reliability of claims diagnoses was almost as high as that observed by Koran in clinical trials. Diagnoses recorded on claims corresponded closely with those reported on medical and hospital records, and claims diagnoses were logically consistent with surgical procedures subsequently or pre-