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SATURDAY, OCTOBER 6, 1934

## NURSING EDUCATION

Phenomenal advances in the science of medicine during half a century have been paralleled by significant improvement in the art of caring for the sick. The development of the trained nurse has been an influential factor. Physicians, therefore, are vitally interested in the proper integration of nursing in the practice of medicine. The final report of the Committee on the Grading of Nursing Schools, containing the results of a comprehensive study of nurse training and nurse practice conducted over a period of eight years, emphasizes the rapid increase in the production of trained nurses and the widespread unemployment that was manifest even before the onset of the period of economic depression. Most people will readily agree that one nurse for every 100 families is more than the country can be expected to support.

The surplus of nurses is due, in part at least, to the large number of poor or mediocre schools in which the educational function is subordinated to the financial exigencies of the hospital. Many of these should be closed just as rapidly as the hospitals can make other arrangements for caring for their patients. One half of all the schools of nursing in the United States are conducted by hospitals with not more than seventy-five patients, while one fourth of the hospitals have only from eight to forty-two patients. The report lays stress on the excellence of the university schools of nursing and on the need of liberal endowments to maintain schools of this type. It recommends that most of the training schools be closed and that hospitals employ graduate nurses rather than students in caring for their patients. In this way the idle could be reemployed and the quality of hospital service improved. Moreover, the prediction is made that the change can be effected without increasing costs.

The committee considers in detail plans for improving nursing schools but realizes that schools most needing improvement will be least likely to adopt its suggestions. It therefore raises the question whether schools of nursing should not be licensed. It recom-

mends that registration of graduate nurses be required in every state and studies made to determine whether all workers who take care of the sick for hire should be licensed. The failure to enforce medical practice acts should have indicated to the committee the likelihood that similar legislation for nurses would be inoperative.

In a summary of its investigations the committee says: "The present system of nursing education is, in general, not attracting as many women of adequate capacity and basic training as would be desirable and is not giving them the quality of training which fits them for the demands of their professional career. On the other hand, it is producing far too large a number of nurses of a type unsuited to those demands." Opinions as to the proper function of the nurse are so divergent that these conclusions will not meet with unquestioning assent.

## ERYSIPELAS AND PRODIGIOUS TOXINS (COLEY)

In this issue of THE JOURNAL (p. 1067) is reported the reacceptance for inclusion in New and Nonofficial Remedies of Erysipelas and Prodigious Toxins (Coley), long, albeit somewhat sporadically, employed in the treatment of selected cases of inoperable bone sarcoma. Although Coley first employed a vaccine of *Streptococcus erysipelatis* in inoperable malignant conditions as early as 1893, a satisfactory explanation of the therapeutic mechanism has not yet been advanced. The use of the product, like that of nonspecific proteins, has rested on an empirical basis supported solely by clinical observations of occasional cases of inoperable malignant disease which have exhibited spontaneous regression following fulminating attacks of acute infectious diseases, particularly erysipelas. Sir James Paget is said to have been the first to record such an occurrence.

Jacobsen<sup>1</sup> in a recent paper advances a theory based on related observations of the alleged increased incidence of cancer and the noteworthy present-day decrease of acute bacterial diseases in general. He cites a series of facts which, it is claimed, will represent the uniform observations of any selected group of widely experienced clinicians with reference to the incidence of malignant growths in patients the past victims of a common infectious process. Among his citations are the lessened frequency of neoplastic disease in the actively tuberculous, in the chronically osteomyelitic and in patients with acute infectious diseases in general, but particularly in those giving a history of typhoid, paratyphoid, scarlatina and diphtheria. Jacobsen's statement that remission of a malignant process following erysipelas is less likely to be permanent than that following typhoid or any acute process which produces a lasting, serologically demonstrable and specifi-

1. Jacobsen, C.: Chronic Irritation of Reticulo-Endothelial System Hindrance to Cancer, Arch. f. Dermat. u. Syph. 169: 562 (Feb.) 1934.

cally homologous immunity tend to controvert Coley's stand. The theory is put forth that the increased cancer rate, while due to modern public health and sanitary measures, is not a function of the increased number of persons now enabled to attain the so-called cancer age. To render this view tenable, the greater occurrence of cancer in the age group from 30 to 50 is cited.

Little experimental work is quoted, although Teutschlander<sup>2</sup> has demonstrated a definite decrease in the susceptibility of tuberculous fowls to the Rous chicken sarcoma.

Jacobsen concludes (1) that the evidence tends to support the hypothesis that the reticulo-endothelial system, when sufficiently active (as when stimulated by one or a number of acute infectious processes), may attain in a measure the ability to cope with neoplastic diseases in a similar if not identical manner, and (2) that the present increase in malignant morbidity is due to the decreased resistive powers of the reticulo-endothelial system occasioned by the lessened incidence of exposure to and infection of the general public with those diseases which were widely endemic before the advent of modern public health methods. As a corollary to these conclusions it is suggested that routine immunization of cancerous patients to typhoid up to an agglutinin titer of 1:800 may prove of value but that surgery should remain the therapeutic measure of choice whenever conditions permit. Two of the conclusions would appear too broad in the light of the reported evidence; namely, (1) that as acromegaly is regarded as a disease of the pituitary so should cancer be regarded as a disease of the reticulo-endothelial system, and (2) that the hope of prevention, if not the treatment of cancer, lies in vaccinotherapy with markedly antigenic substances. The possibility of accumulating more accurate data in this regard seems particularly likely at present through a follow up and study of the cancer rate among veterans of the World War, the vast majority of whom were subjected to typhoid-paratyphoid inoculation.

These observations, in the main, are dependent on statistical surveys; it is only reasonable to point out that the matter of the trend of cancer incidence is distinctly controversial at present. If Wood's<sup>3</sup> views or those recently expressed editorially by *THE JOURNAL*<sup>4</sup> are correct, Jacobsen's work is untenable. However, if Macklin's<sup>5</sup> report is reliable, Jacobsen's reticulo-endothelial theory is deserving of thoughtful consideration.

Whatever the immediate decision, it would appear possible that public health and sanitation, as developed throughout the years, may prove to have been a two-edged sword. Certain it is, however, that its sharpest

edge, thus far, has been that which has reduced typhoid, plague, cholera, smallpox, diphtheria and a score of other diseases to the realm of the infrequent and added years to life expectancy in comparison with which even the increased cancer toll seems of significantly lesser importance. Further studies on the effect of powerfully antigenic substances in inoperable malignant conditions or as a postoperative measure in attempting to combat recurrence seem to be indicated in the light of the accumulated evidence.

#### REBATES AND COMMISSIONS

Elsewhere in this issue (p. 1088) appears a letter from the secretary of the American Surgical Trade Association discussing the code under which dealers in surgical apparatus and supplies will work under the National Recovery Act. The significant paragraph for physicians is one that now places legal control over a situation that was formerly subject only to ethical considerations.

For many years the organized medical profession of this country has been opposed to the acceptance of commissions or rebates by doctors from the manufacturers of surgical supplies. The practice is a low form of the division of fees. It is developed primarily to induce doctors to send their patients to manufacturers who pay large commissions rather than to those able to supply the patient with the apparatus required at the lowest possible cost. Many physicians of high principles adopted the practice of turning over such rebate checks directly to their patients; others simply returned the checks to the manufacturer and discontinued the recommendation of patients to such manufacturers. Others, however, accepted such fees, consoling themselves with the thought that the fee might be considered an added honorarium for determining that the apparatus fitted the condition for which it was prescribed. Nevertheless, reasonable excuse is not to be found for this practice. In its eventual effects on the patient and on the practice of medicine it could do nothing but harm. Hence, regardless of what one may think personally of the development of the codes and of their application to industry, the legal restriction on the giving of rebates is bound to have a beneficial effect on this phase of medical practice.

In certain other ways, as well, the codes are beginning to operate for the development of higher standards in relationship to other phases of medical work. It seems likely that the use of the word "doctor" in commerce for promoting the sale of various types of shoes or other goods will also be restricted to legitimate purposes. In the drug field, higher standards are being developed for several phases of the industry.

In other branches of commercial life, some manufacturers have already found means for evading the spirit of the codes to which they affixed their signatures. The medical profession, with many centuries of ethical

2. Teutschlander: *Zentralbl. f. Bakt., I Orig.* 122: 57 (No. 113) 1931.

3. Wood, H. B.: *Reliability of Cancer Statistics*, *Am. J. Surg.* 28: 31 (Oct.) 1932.

4. *Is Cancer Becoming More Prevalent?* editorial, *J. A. M. A.* 103: 113 (July 14) 1934.

5. Macklin, Madge T.: *Is the Increase of Cancer Real or Apparent?* *Am. J. Cancer* 16: 1193 (Sept.) 1932.