nurse above her ability to remain at all times conscious. Finally, and probably most important, a diagnosis of epilepsy need not be permanent. With proper medical care epileptic seizures can usually be controlled.

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The newly deafened patient

How the nurse may help the patient adjust to deafness

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Someone has said "to live in a silent world is much more devastating than to live in darkness." Little has been written in nursing literature about the hard-of-hearing or deafened patient. It is rare that the layman or even the professional worker is aware of the severity and scope of hearing handicaps. This type of sensory deficiency has too often been regarded as a subject for amusement and ridicule, when actually the wide-spread physical and psychological manifestations arising from the problems of deafness, make that physical defect one of extreme importance and serious concern. It is particularly important for nurses to be cognizant of these problems, in view of the fact that approximately one out of every eighty people have sufficient loss of hearing to cause serious handicap. The observations set forth in this presentation are derived from nursing experience gained from close association with twenty-five hundred soldiers with auditory defects during the past eighteen months at Deshon General Hospital, Butler, Pennsylvania.

When we consider the vast number of returning injured veterans, we usually think only of those with burns, fractures, amputations, or flesh wounds caused from shell fragments, shrapnel, et cetera. But

there are many with injuries less noticeable, and these men and women need the best professional care and consideration we can provide, to restore them to as nearly a normal life as possible.

We are told that the aural rehabilitation program of the U.S. Army Medical Corps was born in the minds and hearts of a few medical officers, who became concerned about these "battle casualties" after reading one of the articles written by the beloved late Ernie Pyle. In his article, Ernie Pyle told of a soldier in the North African campaign who presumably had ignored a challenge by an M. P. It developed that the man had lost his hearing in combat. A small idea which was first nurtured at the Army Medical Center in Washington, has grown into a large and continually expanding program. Today there are three general hospitals which are designated as centers for the aural rehabilitation program of the Army Medical Corps, with special facilities for the care and training of soldiers so handicapped. The Navy has similar centers, and it is probable that before long such facilities will be provided by the Veterans Administration as well as by many civilian hospitals.

Since it is not possible, in most cases, to restore hearing, the program is two-fold: (1) To provide a mechanical prosthesis best suited to the individual's need; (2) To teach the individual to use his eyes to hear with, that is, to read lips. The mechanical hearing aid is like a small radio receiving set. There are a number of types, and the patient is subjected to numerous rigorous tests with each instrument in order to select that one which is best for him. He is trained to use it to best advantage, and to care for it properly. Research men from the manufacturers are constantly working to improve the various instruments and great strides have already been made in this phase of the work. To complement the help received from these devices, the age-old art of lip reading is being taught by highly trained instructors, many of whom are themselves handicapped by hearing deficiency. The example which they set for the patient who comes to them for help is a large factor in aiding him to learn more quickly, to gain confidence in himself, and to make the adjustments which must be made.

Nursing responsibilities

Where does the nurse fit in to such a program? Some of the patients have other physical disabilities which require the usual nursing care, but the majority of them are physically fit. The greatest challenge to the nurse dealing with these patients lies in her appreciation of the psychological and social complications, and in gaining the co-operation of the patient in the program of rehabilitation. The nurse who exercises good common sense and thoughtfulness can help the patient to an understanding of his situation without either overemphasizing or underestimating his handicap.

The hard of hearing patient is usually sensitive about his disability. He is inclined to withdraw from association with others. He may become despondent and depressed; he may be apprehensive and restless. If he has recently lost his hearing, either as a result of combat or following a serious illness, the knowledge of this loss is quite a shock to him. He finds it difficult to participate in group activities such as games or dancing, and he is afraid of making a mistake, so he avoids conversations as much as possible. Most patients with longstanding hearing loss have already experienced such embarrassing situations, and are wary of "repeat performances."

The nurse can help in many specific ways. In working with the bed patient

who is hard of hearing, as well as those who are ambulatory, the following suggestions from our lip-reading instructors are helpful:

- Be sure you have the patient's attention before trying to speak to him.
- 2. If he is not looking directly at you, move so he can see your face easily.
- 3. Make sure the light is on your face so he can see clearly the movements of your lips.
- 4. If he is using a hearing aid, give him time to adjust it before you start conversation.
- 5. Do not prolong conversation more than necessary, remembering that the hard of hearing patient is usually under tension
 and tires more readily than others.
- 6. Speak in a natural voice and manner; exaggerated lip movements are confusing, and the patient can adjust the hearing aid to the normal speaking voice.
- 7. If he does not understand after one repetition, rephrase your words. Many letters and combinations of letters look the same on the lips; others are not visible at all.
- Keep calm; if you display irritation or annoyance over the difficulties in conversing, you will discourage and upset the patient.
- Be sure he understands you; he will be troubled if he thinks he did not hear or understand you correctly.
- 10. If your patient has not learned to read lips, and does not use a hearing aid, resort to writing notes; it is most important that he knows he has understood you correctly. A little patience and tact are essential, but not sympathy which will encourage his tendency toward self-pity.

A few more general suggestions, based on our contacts with the hard of hearing patient, may be helpful. Try to engage him in conversation whenever possible. Guard against the tendency to raise the voice in speaking to him. This only aggravates the situation and as a result the patient may become more inclined to withdraw. In some cases, too, he may talk too loudly, since he does not hear his own voice. Do not fail to tell him. You can help to teach him to modulate his voice, and he will be grateful and less embarrassed. When he begins his lip reading lessons, and the use of the hearing-aid, show an interest in his progress by asking him questions about them. The device is at first annoying, and the patient very often complains of headaches, nervousness, and other minor discomforts. Explain to him the importance of using it as much as possible until he becomes accustomed to it. Just as in learning to become used to spectacles, false dentures, artificial limbs, et cetera, the patient easily becomes discouraged. Words of encouragement and a pat on the back for the least progress

made helps a great deal and is so easy to give.

While the hard of hearing patient is at Deshon, he is among hundreds of others who are meeting the same difficulties and problems with which he is confronted. He has physicians, nurses, and instructors who understand what he is combatting and who know how to meet his needs in a constructive manner. He develops a feeling of security and confidence in time, because he sees so many others "in the same boat." But what happens when he is released to the outside world, either to go back to active duty, as many patients do, or to be discharged to civilian life, to take up the old job or start on a new one?

As this time draws near, the patient is inclined to begin to worry about how he is going to get along at home. The nurse can reassure him by pointing out his skill in lip reading and the use of the hearing aid. If she has the opportunity, she can also point out the many little things which the family can do to help, such as talking directly to the individual; talking in normal voice and manner; keeping hands away from mouth while talking; avoiding holding pipes or cigarettes in the mouth while talking; et cetera. She can urge upon the relatives the importance of treating him as a normal individual. He will be restless at first, and will need time to find his place again in the old form of life. The family can encourage him to wear his hearing aid, and make him feel their pride in his having overcome this handicap so well. Many can return to former positions, and others will have to learn new occupations.

Everyone returning from military service to civilian life will meet with problems of readjustment, and we may sometimes dwell too much on this subject. We have been concerned in this writing about the service man or woman. Let us not forget in our consideration of hard-of-hearing patients, that the methods and suggestions pointed out herein apply to all who are thus handicapped, and who have the same problems of holding their places in society.

As nurses, let us spread the gospel of aural rehabilitation to all who will be benefited thereby; let us be alert to new developments in this rapidly growing work; let us emphasize the importance of regarding the hearing aid as we do any other prosthesis: namely, a help in achieving a useful and happy place in society. Above all let us prevent the hard of hearing from withdrawing from association with their fellows, and denying themselves the joys of communication with others, the joys of music and the theater, and all the sounds of a busy world of which they are so important a part.

STREPTOMYCIN AND TUBERCULOSIS

From preliminary impressions obtained from the study of thirty-four patients who had tuberculosis and were treated with streptomycin during the past nine months it appears probable that streptomycin has exerted a limited suppressive effect, especially on some of the more unusual types of pulmonary and extrapulmonary tuberculosis in this small series of patients. While the reproduction of Mycobacterium tuberculosis may have been temporarily inhibited by the treatment administered, we obtained no convincing evidence of rapidly effective bactericidal action.

As long as streptomycin remains difficult to procure and the toxic effects of protracted treatment remain in doubt, it would appear inadvisable to utilize it in treatment of some of the commoner forms of chronic pulmonary tuberculosis in which the patients are not likely to derive striking benefit. During this time emphasis should be placed on the study of early and extensive hematogenous forms of pulmonary tuberculosis, tuberculosis of the genito-urinary tract, suppurative tuberculous lymphadenitis and early miliary tuberculosis.

It cannot be emphasized too strongly that

care in a sanatorium and collapse therapy are thoroughly proved to be effective therapeutic measures and that in no instance should these be abandoned in favor of treatment with antibacterial agents, such as streptomycin, the range of efficacy of which is yet to be conclusively demonstrated.

It is to be ardently hoped that if these results are noticed by lay persons, they will interpret the results in the same cautious frame of mind that scientific investigators have endeavored to maintain. This unusual suggestion is made for the benefit of the many thousands of patients who have tuberculosis. Morale plays a crucial part in treatment of such a debilitating and chronic disease and morale is injured by premature and optimistic reports of results which may not be sustained in practice. No one as yet actually knows what the final judgment will be concerning the effect of streptomycin on clinical tuberculosis.1 HINSHAW, H. C., and FELDMAN, W. H.: Streptomycin in Treatment of Clinical Tuberculosis: A Preliminary Report, Proceedings of the Staff Meetings of the Mayo Clinic, Vol. 20, pp. 317-318 (Sept. 5) 1945.

1 Italics ours.—Editor.