MORPHINE AND HEROIN ADDICTION.

DEPARTMENTAL COMMITTEE'S REPORT.

THE Ministry of Health issued at the close of last week the report[1] of the Departmental Committee on Morphine and Heroin Addiction, which was set up in September, 1924, by Mr. John Wheatley, when Minister of Health, with the following reference:

> To consider and advise as to the circumstances, if any, in which the supply of morphine and heroin (including preparations containing morphine and heroin) to persons suffering from addiction to those drugs may be regarded as medically advisable, and as to the precautions which it is desirable that medical practitioners administering or prescribing morphine or heroin should adopt for the avoidance of abuse, and to suggest any administrative measures that seem expedient for securing observance of such precautions.

The chairman of the committee was Sir Humphry Rolleston, Bt., and the other members were Sir William Willcox, Dr. John W. Bone, Dr. R. W. Branthwaite, Dr. G. Matheson Cullen, Professor W. E. Dixon, F.R.S., Dr. John Fawcett, Dr. Adam Fulton, and Dr. J. Smith Whitaker. It will thus be seen that the committee was wholly medical in constitution. The secretaries, whose services are acknowledged at the end of the report, were Dr. E. W. Adams and Mr. R. H. Crooke, of the Ministry of Health.

In the following February, acting upon a suggestion by the committee, Mr. Wheatley's successor, Mr. Neville Chamberlain, extended its terms of reference as follows:

> To consider and advise whether it is expedient that any or all preparations which contain morphine or heroin of a percentage lower than that specified in the Dangerous Drugs Acts should be brought within the provisions of the Acts and Regulations and, if so, under what conditions.

The committee held twenty-three meetings and took the oral evidence of thirty-five witnesses, of whom twenty-four were medical men. Four witnesses represented the British Medical Association, three the Pharmaceutical Society of Great Britain, and several others gave evidence on behalf of wholesale and retail pharmacists. The medical evidence included that by consulting physicians of wide experience in the treatment of nervous and mental disorders, by medical men having special experience in the treatment of addiction, by medical officers of prisons, and by representative general practitioners from various parts of the country. Further information regarding the prevalence of addiction was obtained through the regional medical officers of the Ministry of Health from general practitioners of wide experience.

The matters referred to the committee for its consideration fell under four main heads:

> (i) The circumstances, if any, in which it may be medically advisable to administer morphine or heroin to a person known to be suffering from addiction to these drugs;
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> (ii) The precautions which medical practitioners ought to adopt in administering these drugs, both generally and with particular reference to persons suffering from such addiction;
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> (iii) The administrative measures, if any, which we might think it advisable to recommend to secure due observance of such precautions;
>
> (iv) The advisability or otherwise of bringing within the scope of the Dangerous Drugs Acts preparations of morphine or heroin containing percentages of the drugs lower than are at present included.

The report is divided into six sections; the first contains some preliminary observations, which include a summary of the provisions of the Dangerous Drugs Acts and the Regulations made thereunder, and of the present system of administration, followed by a statement of certain difficulties said to have been experienced in the course of administration.

Under these Acts, it will be remembered, possession of the specified drugs is restricted to persons licensed or authorized for such purposes. A registered medical practitioner is authorized to be in possession of the drugs, and to supply them, "so far only as is necessary for the practice of his profession." All persons authorized to supply the drugs, including medical practitioners who dispense medicines for their patients, are required to keep records of drugs purchased and issued, but this requirement does not apply to drugs administered by doctors personally, or under their immediate supervision. Practitioners who do not dispense, and therefore do not supply drugs otherwise than by way of personal administration, are not at present required to keep a record even of their purchases. Records kept by medical practitioners are inspected on behalf of the Home Office by the regional medical staff of the Ministry of Health in England and Wales, and by the corresponding medical staff of the Board of Health in Scotland.

Cases are from time to time brought to the notice of the Home Office in which exceptionally large quantities of these drugs have been supplied to particular practitioners, or in which individual patients have received unusually large quantities on medical prescriptions. The results of inquiries into cases of this kind are indicated in the report, also the difficulties that at present lie in the way of appropriate action in order to secure better observance of the law. Whether the law has been broken turns in such cases usually on whether the drugs were supplied for purposes of medical treatment only.

Prolonged Administration.

In considering this matter, the question arose whether it was medically necessary that in any circumstances morphine or heroin should be supplied continuously for long periods to persons not suffering from any organic disease for the relief of which such drugs were essential. This in turn raised the question, to which the committee addressed itself with much pains, whether abrupt withdrawal of the drugs is feasible, more particularly under the conditions of ordinary private practice. Careful collation of the literature led to the conclusion that the practicability of the method of sudden deprivation depends on the possibility of inducing patients to enter an institution. In view of the risk of intense suffering and even fatal collapse, this method calls for close supervision under expert judgement and skill and trained nursing; moreover, there is a relative dearth of appropriate institutional accommodation in Great Britain as compared with the United States, where some authorities favour sudden withdrawal under proper precautions.

Assuming abrupt withdrawal to be impracticable, even if thought advisable, in a large proportion of the cases of addiction in this country, the question arose whether this would justify the practice of administering morphine or heroin for however long periods in non-diminishing doses. Inquiry showed that some physicians of great experience hold the view that there are two classes of persons from whom—at all events under the conditions of ordinary private practice—the drugs could not be entirely withdrawn. In one class the attempt at complete withdrawal produces severe distress and even risk of life; in the other, experience shows that a certain minimum dose is necessary to enable the patient to lead an ordinary and relatively normal life, and that if deprived of this non-progressive dose he becomes incapable of work. The fact that this view is held by some eminent authorities made it difficult to base action on the assumption that continuous administration of non-diminishing doses, for however long a period, is necessarily inconsistent with bona-fide medical treatment.

Another question studied by the committee was the cases in which a doctor supplies or orders dangerous drugs for persons whom he sees infrequently, or for persons whom he sees for the first time and respecting whom he has no communication from the patient's ordinary medical adviser. A further question, even more difficult, was the case of doctors who are themselves addicts. Owing to the authority possessed by medical practitioners to obtain the drugs, they do not encounter the same obstacles in getting excessive supplies as an ordinary member of the community, who can only get them from a doctor or on a prescription. These and the other matters mentioned above were those in regard to which the Home Office sought the committee's advice.

[1] London: H.M. Stationery Office. 1926. To be purchased through any bookseller, price 1s. net.

Medical Aspects of Addiction.

Section II summarizes the results of the committee's inquiries into certain medical aspects of the problem of addiction—its nature, causation, and prognosis. The term "addict" is defined as follows:

"A person who, not requiring the continued use of a drug for the relief of the symptoms of organic disease, has acquired, as a result of repeated administration, an overpowering desire for its continuance, and in whom withdrawal of the drug leads to definite symptoms of mental or physical distress or disorder."

In regard to the prevalence of addiction the evidence all tended in the same direction, and its collective effect supports very strongly the conclusion that in this country addiction to morphine or heroin is rare. There was also a general concurrence of testimony to the effect that addiction has diminished in recent years, most of the witnesses attributing this to the operation of the Dangerous Drugs Acts, which have made it difficult to obtain these drugs otherwise than from or through medical men. On the one hand, those who were already addicts when the restrictions came into operation have been driven to placing themselves under medical care or overcoming their infirmity for themselves; on the other hand, new addicts are not being created as they were under former conditions. From all this the committee points the moral that "the prevention and control of addiction must now rest mainly in the hands of the medical profession, since, in the main, it is through them alone that the drug can be obtained."

Of the two forms of addiction morphine in any of its forms is much the commoner, but the addiction produced by heroin is the more disastrous in its physical and mental results, and more difficult to cure. In the case of morphine the evidence showed that hypodermic injection is much more likely than other methods of administration to lead to addiction and that addiction so arising is harder to cure. The nature and causation of morphine and heroin addiction are, however, so closely associated that the committee considered them together. All the evidence tended to show that in the great majority of cases the drug, whether morphine or heroin, is taken, not for the purpose of obtaining positive pleasure, but to relieve a morbid and overpowering craving. "The only immediate cause of addiction is the use of the drug for a sufficient time to produce the constitutional condition that is manifested in the overpowering craving and the occurrence of withdrawal symptoms when use is discontinued." The following specific events were regarded by medical witnesses as having led to the development of addiction in different cases, and the committee discusses them separately. These are: (1) use of the drugs in medical treatment; (2) self-treatment for the relief of chronic or recurrent painful or distressing physical conditions, or for the relief of emotional distress; (3) example or influence of others; (4) curiosity, bravado, and search for pleasurable experience.

The committee next discusses the three methods of treatment—abrupt withdrawal, rapid withdrawal, and gradual withdrawal—and their relative value. The opinion of the witnesses who appeared before it was for the most part strongly in favour of the gradual withdrawal method. Treatment, after-care, and prognosis are then reviewed. Section III considers the circumstances in which it might be medically advisable to administer morphine and heroin to persons known to be suffering from addiction to these drugs, and Section IV the precautions to be observed in their administration. Section V discusses the administrative proposals to which the Home Office invited attention, and others which witnesses suggested or which occurred to the committee during its deliberations. In Section VI the committee, in accordance with its supplementary reference, considers certain preparations at present excluded from the scope of the Dangerous Drugs Acts.

The whole report is a document of great medical interest and should be read by all practitioners whose work brings them in contact with these distressing cases of drug addiction. It has also sociological aspects which deserve close study. The general tenor of the report will be gathered from the committee's carefully summarized conclusions and recommendations, which are printed together at the end. In view of their importance we reproduce them substantially in the committee's own words.

Conclusions and Recommendations.

The first group of these relates to medical questions, some of which have been briefly mentioned above.

Prevalence of Addiction.—Addiction to morphine or heroin is rare in this country, and has diminished in recent years. Cases are proportionately more frequent in the great urban centres, among persons who handle these drugs for professional or business reasons, and among those specially liable to nervous and mental strain. Addiction is more readily produced by heroin than by morphine, and addiction to heroin is more difficult to cure. Facility of access is an important factor in the production of addiction.

Nature and Causation of Addiction.—With few exceptions addiction to morphine and heroin should be regarded as a manifestation of a morbid state, and not as a mere form of vicious indulgence. The immediate cause of addiction is the use of a drug for a period sufficient to produce the constitutional condition manifested by "craving," and the occurrence of withdrawal symptoms when the drug is discontinued. Addiction is more readily induced in some persons than in others, the most important predisposing cause being an inherent mental or nervous instability. There is evidence, however, that addiction may be induced by injudicious use of the drug in a person apparently free from any manifestation of nervous or mental instability, and, conversely, that due care in administration may avert this result even in the unstable. Other predisposing causes are chronic pain or distress, insomnia, overwork, and anxiety. In a considerable proportion of cases the circumstance which has immediately led to addiction has been the previous use of the drug in medical treatment. Other circumstances noted have been self-treatment for relief of pain, recourse to drugs in emotional distress, influence of other addicts, and indulgence for the sake of curiosity or the experience of pleasurable sensations. Cases of addiction originating in use of the drugs otherwise than under medical orders must be expected in future to diminish.

Treatment and After-Care.—While authorities differ as to the relative value of abrupt or rapid withdrawal of the drug and gradual withdrawal in the cure of addiction, the committee draws the following conclusions from the evidence:

(*a*) Abrupt or rapid withdrawal cannot be carried out safely except under conditions which afford complete control of the patient's access to the drugs, and close and continuous observation of the effects of the treatment, such as are usually to be found only in special institutions or nursing homes.

(*b*) Gradual withdrawal will, therefore, with rare exceptions, be the only practical method under the ordinary conditions of private practice, and the only one applicable to patients who cannot afford or are, for other reasons, unwilling to enter institutions or nursing homes.

(*c*) Abrupt withdrawal may be advisable for young otherwise healthy adults in whom the addiction is of recent date, and so far has entailed moderate doses only; in other cases gradual withdrawal is on the whole to be preferred even under institutional conditions.

(*d*) Abrupt withdrawal is specially dangerous in old or seriously debilitated persons, patients with well marked organic disease, and those taking exceptionally large doses.

(*e*) Institutional treatment, while with rare exceptions indispensable for the abrupt method, also affords the best hope of cure by the gradual method, and patients should always, if possible, be induced to undergo treatment in an institution or nursing home.

(*f*) Success in enabling any patient, by either method, to become (for the time being) independent of the drug must be regarded as the completion of the first stage of treatment only. For permanent cure a prolonged period of after-care is necessary in order to educate the patient's will-power and to change his mental outlook. For this part of the treatment information should be obtained by a close investigation, during the first stage, of the conditions which brought about the addiction, and if a factor, such as pain or insomnia, contributed to the causation, every effort must be made to remove or cure this before the patient is released from observation. Attention must also be paid to the possibility of improvement in the patient's social conditions.

Prognosis.—Estimates of the proportion of complete cures of cases treated vary from 15 or 20 per cent. to 60 or 70 per cent., the highest percentages being claimed by practitioners adopting the abrupt method, who had carried this out in institutions or homes.

Legitimate Administration to Addicts.

There are two groups of persons suffering from addiction to whom administration of morphine or heroin may be regarded as legitimate medical treatment—namely, those who are undergoing treatment for cure of the addiction by the gradual withdrawal method; and persons for whom, after every effort

has been made for the cure of the addiction, the drug cannot be completely withdrawn, either because complete withdrawal produces serious symptoms which cannot be satisfactorily treated under the ordinary conditions of private practice, or because the patient, while capable of leading a useful and fairly normal life so long as he takes a certain non-progressive quantity, usually small, ceases to be able to do so when the regular allowance is withdrawn.

Precautions in Administration to Addicts.—Under treatment by the gradual withdrawal method the addict should, if possible, be induced to enter a suitable institution or nursing home. If this is not feasible, the practitioner must attempt to cure the condition by a steady judicious reduction of the dose, with a view to ultimate complete withdrawal. The patient should be kept under close observation by the practitioner, should be in the care of a capable and efficient nurse, and under sufficient control to preclude any possibility of obtaining supplies of the drug other than those medically ordered. If the practitioner finds that he is losing the requisite control, or the course of the case indicates a probability that complete cure cannot be effected, he will be well advised to obtain a second opinion before assuming the responsibility of indefinitely prolonged administration. Where indefinitely prolonged administration appears to be needed, the main object must be to keep the supply of the drug within the limits of what is necessary. The practitioner should be satisfied as to urgency before ordering or supplying morphine or heroin to a patient concerning whom he has no previous knowledge, and careful inquiries should be made from the patient, at the beginning, as to the previous or concurrent sources of supply. The minimum dose necessary should be administered and (unless organic disease is present) repetition withheld until the practitioner has obtained details of the case from the previous medical attendant.

Precautions in the use of Morphine and Heroin in Ordinary Medical Practice.

The committee advises that regard should be paid at all stages of the case to the possibility of substituting for morphine or heroin, either temporarily or permanently, drugs which do not involve the risk of addiction. If morphine or heroin is essential, care should be taken not to give larger or more frequent doses than are strictly requisite to achieve the object in view. Cases requiring daily administration should be seen as often as the doctor feels to be necessary, and the amount ordered or supplied should not exceed that required until the patient is seen again. Discretion to nurses as to administration of the drug should be strictly limited by prescription, and any change made in the treatment should be stated in writing. The patient should not be informed either of the name or dose of the drug administered. Whenever other methods of administration will produce the desired effect, hypodermic injections should be avoided. In no circumstances should the patient be allowed to administer the drug to himself hypodermically. The drug should be discontinued immediately it is no longer needed. Should a craving result, close supervision and appropriate treatment must be maintained until the medical attendant is satisfied that the patient has been rendered independent of the drug.

Valuable results, the committee believes, might accrue from the judicious instruction of medical students in the precautions necessary to avoid the production of addiction to morphine and certain other drugs. Medical men already in practice should welcome the issue of some authoritative memorandum affording guidance upon this difficult and important subject, and the issue of such a memorandum is therefore recommended.

Administrative Measures.

Withdrawal of Authorization.—The present position under which a doctor's authorization to possess and supply the drugs can only be withdrawn after a conviction under the Dangerous Drugs Acts is not satisfactory, either administratively or from the point of view of the medical profession. Accordingly, the committee recommends that the Home Secretary should have power to withdraw the authorization without conviction in the courts, if so advised by a suitably constituted medical tribunal. Tribunals should be constituted whose function it would be to consider whether or not there were sufficient medical grounds for the administration of the drugs by the doctor concerned, either to a patient or to himself, and they should advise the Home Secretary whether the doctor's right to be in possession, to administer, and to supply the drugs should be withdrawn. There should be separate tribunals for England and Wales, and for Scotland, and each should be composed of one member nominated by the General Medical Council, one by the appropriate College of Physicians, and one by the British Medical Association, with a legal assessor.

Control of Prescribing.—The committee advises that any doubt as to the power of the Home Secretary under the present Regulations to control the prescribing of dangerous drugs should be removed by a suitable amendment to the Regulations. The Home Secretary should also have power, after the conviction of a doctor in the courts for an offence under these Acts, or on the advice of a medical tribunal, to withdraw the practitioner's authorization to prescribe dangerous drugs.

Second Opinions.—In the interests of patients and of practitioners themselves, it is held to be disirable that the practice should be generally followed of obtaining second opinions before undertaking the responsibility of continuing to administer drugs in cases in which there is no medical reason for doing so, other than treatment of the addiction. This applies also to the patient who needs indefinite administration of the drug for the purpose of enabling him to lead a normal and useful life. The Regulations should not, however, require a practitioner to obtain a second opinion, but it should be regarded as a professional obligation, such as is already generally recognized in respect of the decision to carry out certain other forms of treatment.

Record of Purchases by Non-dispensing Doctors.—In the committee's opinion doctors who do not dispense should be required to keep a simple record of their purchases of dangerous drugs, and this could most easily be done if the invoices of purchases were pasted in a book.

Preparations at Present Excluded from the Acts.

With the possible exception of chlorodyne, there is little, if any, abuse or danger of addiction arising from any preparations at present excluded from the scope of the Dangerous Drugs Acts. As regards chlorodyne there was considerable difference of opinion, but it appeared that its free sale as a common domestic remedy has given, and does give, rise to certain risks of addiction. In the committee's view there is no present need, for the prevention of addiction, to lower the limit of morphine content now fixed by the Acts. The position as regards chlorodyne would, it suggests, be met if no preparation were allowed to be sold under the name of "chlorodyne" which contained more than 0.1 per cent. of morphine.

Nova et Vetera.

GLISSON AS AN ORTHOPAEDIC SURGEON.*

IN the last century it was by many thought odd that the senior physician to one of the great general hospitals should practise orthopaedic surgery, but two hundred years ago it would not probably have excited criticism, for medicine and surgery were not then completely divorced. Sir D'Arcy Power has told us how surgeons as late as the seventeenth century struggled in vain to free themselves from the control of the physicians. And only a few weeks ago a hospital physician, writing in the BRITISH MEDICAL JOURNAL (January 2nd, p. 36), claimed "that except in cases of trauma no laparotomy should be performed save with the sanction of the physician." But nearly a century before Glisson's great treatise on rickets appeared, Ambroise Paré had shown that there was at least one surgeon who needed no physician to tell him what to do.

Glisson describes surgical apparatus and treatment just as a surgeon might have done and without any hint that he employed a surgeon to carry out his directions. Although I am only dealing with one aspect of his activity, I may fitly remind you of some facts of his life, referring you for more details to the writings of Sir Norman Moore in the *St. Bartholomew's Hospital Reports* and the *Dictionary of National Biography*.

He was born in Dorsetshire in 1597, became M.D.Cantab. in 1634, and F.R.C.P.Lond. in 1635. He was Censor in 1656 and President in 1667, 1668, and 1669. He was Regius Professor of Physic at Cambridge for more than forty years. He died, aged 80, in 1677. His published works are: "De Rachitide sive morbo puerili Tractatus"

* Abstract of a paper read before the History of Medicine Section of the Royal Society of Medicine, February 17th, 1926, by E. Muirhead Little, F.R.C.S.