FUNDAMENTAL PRINCIPLES OF OBSTETRIC PRACTICE *

BY

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At present the main basis for discussions on maternal welfare is the final report recently issued by the Committee on Maternal Mortality from the Ministry of Health. It is the desire of the committee that the report should be as widely known as possible, especially since the present economic stress has postponed the fulfilment of the various recommendations which it laid down.

I have always held the opinion that the responsibility for maternal welfare in this country lies in the hands of the family doctor; especially is this the case in country and small town areas. The consultant is a referee in difficult complications of pregnancy and labour, but his main influence is in the direction of training students. The standard of efficiency of young graduates is the specialist's care. If this standard is high the general tone of the midwifery, not only in this country, but in the whole Empire, is raised. Individual skill and conscientious behaviour are naturally very important factors in the reduction of a high maternal death rate. Conscience itself plays a part in bringing about good results; this is impressed upon us by the committee's report. Many of the "primary avoidable factors" could have been prevented not only by care on the part of the medical attendant, but by forethought on the part of the patient or her responsible relatives. The chief lesson to be learnt from both reports is that there must be a close co-operation between the medical profession and the public. This can only be brought about by dissemination of the knowledge of the dangers which are preventable if proper care and forethought are exercised.

PRIMARY AVOIDABLE FACTORS

The final report, which was issued in August, gives little that differs from the interim report. It is confirmatory, and therefore of great value. The chief concern of the committee has been to emphasize the importance of the four groups of primary avoidable factors which, as predisposing causes, contribute to a high maternal mortality. These causes are: inadequate ante-natal care, want of skill and judgement in the management of a case, neglect of preparations for confinement, and neglect in the provision of skilled attendance. No definite information has been obtained as to the source of sepsis after spontaneous labour. The resistance of the patient herself, in my opinion, is an important consideration in those cases where no cause of infection can be found.

Want of skill on the part of a particular doctor or nurse does not influence mortality as a whole. It is the system which succeeds or fails in an area. Most practitioners say that it is in midwifery practice that they find the greatest difficulties. This is not because of the actual medical conditions, but because of the impossibility of carrying out the methods which were taught to them in the medical schools. In surgery special efforts are made when a serious condition is to be dealt with, but in regard to childbirth the opinion is still prevalent that anyone is good enough to attend a woman who is undergoing an ordinary physiological function. Constant reiteration of the facts which pertain to a high maternal mortality, unpleasant as they must be to child-bearing women, seems to be necessary in order to bring about reforms. The Ministry of Health is to be congratulated on its efforts in this direction.

We are all convinced that cases of eclampsia can be prevented to a great extent by early ante-natal care; yet, out of 3,805 deaths investigated by the committee, 326 were due to eclampsia, and 74 per cent. of these received little or no supervision during pregnancy. The

committee advises routine examinations of the urine and blood pressure; the only difficulty seems to be to catch the patient. The number of women supervised during pregnancy is not great, taking the country as a whole. Education must convince every woman that there is advantage to health and safety to life if she reports herself early in her pregnancy to her doctor or midwife. Compulsory notification of pregnancy would defeat its own ends; voluntary attendance as the result of a wider knowledge is of much greater value. The committee has concerned itself mainly with administrative problems, and has wisely refrained from laying down rules as to methods of special treatment.

ANTE-NATAL SUPERVISION: DIMINUTION OF CASES OF ANTE-PARTUM HAEMORRHAGE AND ECLAMPSIA

The final report states that of the 3,805 deaths investigated, apart from placenta praevia, ante-partum haemorrhage accounted for ninety-eight. It is doubtful whether ante-partum haemorrhage should be classified under direct obstetric causes of death. Although uterine haemorrhage occurs, the source of the complication may be found in general toxæmia due to defective elimination. The prevention of toxæmia is a marked feature of hospital ante-natal clinics. The number of serious cases is diminishing markedly, due to a large extent to examination of the patient early in pregnancy. In a ten-year period at the Royal Free Hospital there were 2,085 deliveries. Among these were 29 cases of eclampsia and 126 cases of ante-partum haemorrhage. Of the eclampsia cases four died; all of these were delivered, the infant surviving in each case. Of these patients, two received adequate ante-natal care, and two had inadequate supervision. The death rate for eclampsia was therefore 0.03 per cent. of all maternity patients. Ante-natal supervision has brought about a diminution in the number of cases of eclampsia, but the fulminating type is met with in most obstetrical clinics, no matter how much care has been taken. Modern treatment of these patients has, however, reduced the death rate. The management of such cases should be in the hands of the senior staff, and not, as in many hospitals, in the hands of the house-surgeons who treat these emergency cases on admission.

Of the 126 cases of ante-partum haemorrhage not due to placenta praevia only a very small number showed any serious symptoms. Haemorrhage is looked upon as dangerous no matter how slight, and admission to hospital is always insisted upon. Investigations are carried out as to the degree of toxæmia present, and treatment arranged for accordingly. As a consequence only one patient died, and she had acute toxæmia, the haemorrhage being a symptom of her general condition. The death rate of 0.008 per cent. is a proof of the efficiency of early treatment of these patients. Placenta praevia may be described as an anatomical indiscretion; it cannot be prevented. As the committee points out, however, the first signs of haemorrhage should never be ignored; they are a danger signal which, if observed, will in many cases prevent a fatal ending.

Methods for the treatment of post-partum haemorrhage were found to be inadequate (204 deaths). Blood transfusion was carried out in eight cases only. In twenty-nine cases intravenous salines, and in forty-three rectal or subcutaneous salines, were given. In hospital practice blood transfusion is possible when a grouped donor is available. In an emergency case in domestic practice, especially if at a distance from town, the difficulties are almost insurmountable. Although a donor may be forthcoming, grouping may be impossible. Here stress might have been laid upon the use of glucose, the merits of which are now undisputed. Sterile sealed flasks of the solution (5 per cent.) are now supplied, and can be utilized at once with aseptic safety in every case. In the treatment of obstetrical shock glucose is of great value.

ABORTION AND CAESAREAN SECTION

The final report lays much more stress upon the importance of abortion as a factor in a high maternal mortality. The first report gave the impression that this condition was not a serious contributory factor. The

* Read at the opening meeting of the St. Pancras Division of the British Medical Association, October 11th, 1932.

committee emphasizes the difficulties of treatment, more especially in cases of septic abortion. Special isolated maternity beds in hospital are advised, the ordinary maternity department being considered unsuitable owing to the risk of infection from the abortion cases.

The objection in the case of Caesarean section is that the operation is carried out in some instances after previous attempts at delivery have failed. The rate of Caesarean operations is looked upon as too high. It is an easy operation, but a decision as to its necessity requires judgement and experience. It is lightly undertaken by the younger specialists or by the general surgeon, who may have little knowledge of the vagaries of labour. Caesarean section is an easy way out of most complications of labour, and its chief attractions are that it relieves anxiety about the infant and is in itself a time-saver. The chief indications are to be found during the later stages of pregnancy, and precautions can be observed which will minimize its risks. Vaginal examinations should not be made repeatedly, and local intervention should be avoided in cases where the operation may be found to be necessary during labour. Trial labour in cases of disproportion has diminished the indications for Caesarean section to a marked degree. Experience alone can tell us when it is necessary to operate in labour. In some cases, if labour is allowed to proceed until the patient is exhausted, the operation may not give favourable results.

DEATHS FROM CARDIAC, PULMONARY, OR RENAL COMPLICATIONS

In regard to the deaths (746) not due primarily to pregnancy, suggestions are given as to the general treatment of patients suffering from cardiac, pulmonary, or renal complications. In the majority of cases of this type pregnancy is not the primary cause of disability. The history of cardiac cases shows that rheumatism in childhood is as a rule the predisposing cause. The family doctor and the public authorities should realize that much preventive work could be done by careful diagnosis of rheumatic symptoms in infancy as well as in childhood. Since special attention has been paid in the Royal Free Hospital to cardiac disease associated with pregnancy the results have been very successful. Out of 200 cases of heart disease there was a death rate of 2 per cent.; this low mortality is due to the co-operation of the cardiologists with the obstetrical staff. The main line of treatment is rest in pregnancy and the administration of sedatives and anaesthetics in labour. Induction of abortion rate has very much decreased. One could have wished that the committee had laid more stress on the treatment of pulmonary tuberculosis. Special beds should be provided in some sanatoriums, and provision for a confinement should be made in a maternity hospital for the treatment of tuberculous patients during late pregnancy and the puerperium. Complete rest in healthy, open-air surroundings is of great importance for the tuberculous expectant mother.

The Midwives' Institute, in consultation, has advised the holding of post-mortem examinations in cases of death from childbirth; the medical officers of health, however, do not advocate this procedure. An official post-mortem examination would strike consternation into the heart of a family doctor or midwife in a small town or country area. Local criticism of a maternal death is bad enough, but the added worry of an inquiry and the possibilities of blame would make most practitioners avoid the practice of midwifery. I cannot see how any local inquiry or its results could be anything but a public affair. The tendency would be for patients to enter hospitals or nursing homes.

Careful consideration of hospital district reports shows that there is something to be said for the isolation of normal midwifery patients in their own homes. The district death rate of a hospital is very small. In the Royal Free Hospital there were no deaths in ten years. It is true that complicated cases are admitted to the wards, but this is as it should be. Segregation in hospitals and small homes increases the risks of sepsis, although sepsis is not a frequent occurrence in properly organized

institutions. The performance of obstetrical operations in the homes of poorer patients is attended with great risk. No conscientious practitioner should contemplate an operation without its attendant facilities of skilled help and equipment. A considerable number of obstetrical complications can be foreseen at the ante-natal examination. Arrangements should be made for the patient either to enter a hospital or to have skilled help in her own home.

The question of anaesthetics and sedatives has been discussed in the report, and it is very disappointing to find what little progress has been made in this direction. The committee has given no impetus to the efforts which are being made to relieve the agonizing suffering endured by many poor women during labour. The subject is at present an economic one. It is less trouble, on the whole, for responsible authorities and practitioners to continue in the belief that labour is not a painful process, or that it is the lot of women to endure it.

THREE IMPORTANT FACTORS

This brings me to the discussion of three points which I think are of some importance in the establishment of an efficient maternity service for the benefit of poor patients. First, the most efficient ante-natal clinics are those in a hospital where the medical staff follow up the patients throughout pregnancy, labour, and the puerperium. The staffing of ante-natal clinics throughout the country has been somewhat haphazard. Obstetrical qualifications are not always considered to be of paramount importance in the selection of a medical officer. I have drawn attention to this fact for some years. The medical officer of an ante-natal clinic is not, as a rule, responsible for the patient during labour, while the doctor or midwife tends to blame the ante-natal medical officer for overlooking some complication which may not have been manifest before labour began. Criticisms occur and efficiency suffers where responsibility is shared. The family doctor, or the doctor who is to be in attendance at the confinement, should, when possible, conduct the ante-natal examinations. If it is a midwife's case, the doctor called in when required at labour should be the one who has had previous supervision of the patient. Every pregnant woman who has arranged with a midwife for her confinement should be seen at least once by a medical practitioner.

Secondly, the favourable results found in the records of hospital district practice are explained by the fact that the supervision of the patients is conducted by medical officers who are under strict control. The staff are required to carry out as far as possible the methods of treatment employed in the hospital. Equipment comprising sterile gloves, towels, etc., can be obtained, and anaesthetics can be administered when required, while the skilled advice of senior members of the staff is available. The patient can be taken to hospital immediately should the necessity arise. A graduate who sets up for himself in a poor district finds little available in the way of assistance which would conduce to the safety of his patient. The medical staff of a maternity hospital should give assistance when required to do so by local practitioners. Anaesthetics could be administered and help given by the assistant medical officers of the department, while the prestige of the medical attendant would be safeguarded and other conditions considered. I see no reason why a hospital should not be a help to local practitioners instead of a critic of their methods. Complicated cases are sent up to the ante-natal clinics for advice; this advice should be available at the time of the confinement. I would support any invitation from doctors in the neighbourhood of the Royal Free Hospital whose patients were of the poor, necessitous classes.

Thirdly, discussions are proceeding as to the best methods of increasing the facilities for training in clinical obstetrics. Five or six years after graduation some of this training may be out of date, and further instruction in modern methods required. The less said of post-graduate instruction in obstetrics in this country the better; it is no credit to us. Isolated demonstrations are

held at intervals, but these only reach a few local practitioners or those home on leave from abroad. The average practitioner does not want a busman's holiday; he wants to get away from patients and have a thorough change of scene. If he wishes to attend a course of study in a teaching centre he loses his holiday. Let us take a lesson from the refresher courses which are now being provided for the county midwives. These take place once a year at a place convenient for everyone in the county. Lectures are given by specialists, and the midwife is kept up to date; these courses last sometimes five or six days. Post-graduate demonstrations could be organized by the local Branches of the British Medical Association in each county or group of counties. The head office could obtain specialists from teaching centres. It would be easy for practitioners to attend several or all of the lectures, as they would be held at no great distance from their home areas. The machinery for carrying out such a scheme is in the hands of the British Medical Association and its Branches, and there should be as little difficulty as in the case of the post-certificate courses for midwives. I feel sure it would be a success, and would be a very valuable contribution towards raising the efficiency of midwifery practice throughout the country.

KING EDWARD'S HOSPITAL FUND

DISTRIBUTION MEETING

The Prince of Wales presided over the annual distribution meeting of King Edward's Hospital Fund for London on December 15th, and read a message from the King congratulating the council on having been able to raise the sum distributed to £300,000 out of its ordinary income for the year.

The Prince explained that the average annual increase in distribution during previous years had been about £8,000, and that the present increase of £25,000 over last year represented an exceptional measure in view of the exceptional difficulties of the hospitals in the present crisis. The £100,000 level had been reached in 1905, and the £200,000 mark in 1918, a good margin having on each occasion been retained in hand. This year, however, with an income of £303,000, it was felt that the retention of a smaller margin was justifiable. The Prince remarked that there ought to be an end of any talk about a gradual drying up of the stream of charity. The voluntary hospital income had continued to grow year after year, many who could so afford giving more because others had to give less; herein was clear evidence of the fact that the British nation, taken as a whole, believed in maintaining the voluntary hospitals as an essential part of the medical service of the country. One anonymous donor had offered to a hospital £6,000, half the amount it needed for a much-needed extension of its out-patient department, on condition that the other half was raised within a specified time; the public responded, the money was raised, and the work was put in hand much quicker than would otherwise have been possible. Expenditure on the pensions scheme had now reached £20,000; this would involve drawing on the special pensions reserve built up during the last three or four years. The report of the Out-Patient Committee would be published before the council meeting in January. An inquiry into the methods at various hospitals had been completed, and the report would contain a discussion of the relation of out-patient departments to other existing agencies for providing medical treatment, as well as a general survey of the progress of an out-patient. It had been suggested that a small follow-up committee should be appointed to consider how the mass of information collected could best be rendered generally available in order to enable hospitals to improve their own procedures. The late Sir John Young, who died last July, had asked the King's Fund to arrange for the conversion of his residence into a convalescent home in connexion with a hospital in which he was specially interested; the necessary arrangements were proceeding. For propaganda purposes a new form of exhibit had been

prepared—namely, a miniature hospital, about four feet high, elaborately fitted to illustrate modern equipment. This would be on view in Bond Street early in the New Year, and His Royal Highness hoped to open the exhibition.

Mr. E. R. Peacock, honorary treasurer of the King's Fund, announced that the receipts from legacies were expected to amount to nearly £59,000, as compared with £69,000 last year; there was, however, no sign of any general tendency towards a falling off in receipts from this source. The British Charities Association had again contributed £10,000. Lord Marshall, treasurer of the League of Mercy, announced that the grant from the League would be £20,000, an increase of £3,000; this was largely due to the great success of the entertainment promoted by the League, under the special patronage of the Prince of Wales.

England and Wales

The Deaf in England and Wales

The Ministry of Health has issued "A Study of the Deaf in England and Wales, 1930 to 1932,"¹ being a report by Dr. Alfred Eichholz, based on an investigation instituted in 1930 "to obtain fuller information . . . on the position in industry of deaf and dumb persons and of the facilities for their education and training and for securing employment." The investigation has been thorough, and the report represents a comprehensive survey of the education and social welfare of the deaf and of the conditions affecting their professional and industrial employment. It is estimated that there are 34,000 deaf and dumb persons in England and Wales, of whom about 3,000 are under 16. The number of deaf and dumb school children, however, has shown an appreciable decrease each year. In 1930 the number on the roll of special schools was 3,951; in 1932 this number had fallen to 3,753. Deaf-mutism is of two kinds, pre-natal and post-natal in origin, but whether the former can be reduced Dr. Eichholz does not surmise. The factor of prevention bears upon the latter, and while the welcome decrease in the number of deaf and dumb school children is attributed to public health administration and the school medical services, much more remains to be done. Dr. Eichholz suggests that the Ministry of Health should urge local authorities to give close attention to the early and continuous treatment of infants suffering from ear defects, and that the Board of Education should invite them to improve their arrangements for the detection of defects and for the supervision of all cases by medical practitioners with adequate otological experience. The report also suggests that the Ministry of Health and the Medical Research Council should take steps to institute a study of the age incidence, causes, and treatment of ear defects.

Stenhouse Williams Memorial

In memory of R. Stenhouse Williams, M.B., C.M., the first director of the National Institute for Research in Dairying, who died last February, it is proposed to raise a fund to be used for the advancement of dairy science at the Institute, near Reading. Dr. Williams had devoted himself unsparingly to the cause of the practical application of science to the problems of the dairy industry, and at the time of his death was energetically striving to make the future of the Institute secure. It has been felt, therefore, that the "Stenhouse Williams Memorial Fund" could not be better applied than to the fulfilment of his ideals, which would be of very great benefit to the world

¹ *A Study of the Deaf in England and Wales, 1930 to 1932.* Report by Dr. A. Eichholz, C.B.E., to the Minister of Health and the President of the Board of Education. London: H.M. Stationery Office. 1932. (3s. net.)