PROCEEDINGS OF THE ASSOCIATION OF INDUSTRIAL MEDICAL OFFICERS, 1944

BIRMINGHAM GROUP

The summer meeting of the Association, due this year to be held in Birmingham on May 19th and 20th, was unavoidably cancelled, but a group meeting was held instead, on May 20th, at the Birmingham Accident Hospital when the subject of accident services was discussed. Before the meeting Mr. E. A. Nicoll showed a new British Council film 'Accident Service' at the Tatler News Theatre, where some 250 members and guests attended. At the hospital Mr. W. Gissane described the policy set up by his Board. The hospital would deal with two-thirds, perhaps three-quarters, of the city's accidents. One main problem was the minor injury, fingers in particular, and the control of wound infection. This latter was the subject of a long-term research by Professor A. A. Miles, acting for the Medical Research Council. The accurate treatment and rapid supervision of say 600-1000 cases a day meant a well-planned system, such as he considered was now to be provided. Mr. Gissane showed plans of the new outpatient and reception blocks (opened by the Minister of Health on August 14th, 1944). All new cases would receive immediate treatment in a special department— with examination cubicles; x-ray room, with mobile unit if required; two operating theatres with sterilizing room and changing rooms for the surgeons; plaster theatre; and photographic unit. Serious cases would be admitted to the wards, and this includes admission of the 24-48 hour case; others go home or, perhaps, back to work. Records would be kept by the Hollerith system. Follow-up systems are important. Patients and their friends can use a bright and cheerful waiting hall with bar-canteen. Surgeons have well-equipped examination rooms, off which branch the main x-ray department for the hospital, plaster rooms, patient's lavatories and waiting room. All re-dressings are seen at each attendance by a surgeon. A special plan for this has been devised enabling a quick flow through for inspection. This department is adjoined by three separate dressing stations for clean wounds, dirty wounds and burns—all ambulatory cases. Above this block was a gymnasium, also concerned with working, near which would be rooms for occupational forms of rehabilitation. Finally, the hospital was intimately concerned with economic rehabilitation: the sheltered workshop for injured persons had come to stay—arising out of the Austin experiment—and plans were already on the table to set up communal rehabilitation workshops for Birmingham as a whole. Some 70-80 members of the Association and guests then toured the hospital and later were entertained, with members of the hospital staff, to luncheon by the group. Dr. R. E. Lane thanked the group for its hospitality and said how disappointed members had been that the main meeting had to be cancelled—and in particular the annual dinner at which he understood nearly 100 members were to have attended. One of the main objects of the Association was to maintain social contacts between medical officers. This meeting had done that in no small manner and had given a lead to the setting up once again of pre-war standards.

On Friday, June 16th, Mr. R. A. Lewty spoke on 'Dental Services in Industry.' He did not need to justify the need for dental treatment: it was essentially supplementary to medical service. Dental treatment did not just mean alleviation of toothache; it means rendering mouths hygienic and efficient, and advising the workers how to keep them so. If a firm was not willing, nor economically able, to install a dental clinic arrangements should be made with local practitioners. The difficulty of this was to arrange for the employee to have time off to attend outside clinics. Evenings dental sessions were not in the best interests either of patient or employer. Where a clinic is set up at the factory the dentist should be allowed to visit all departments. He should be a member of the works council. His clinic should be central; it should have two surgeries, waiting room, and clerk's office; and, if possible, a dental workshop. Equipment should be of the best; an x-ray outfit is essential. At first too many people should not be examined prior to treatment. He himself had made this mistake. In his view some 30 workers should be given an initial examination and treatment started right away. Then each day, 5 or 6 new applicants should be examined. Thus work volume could be more readily controlled. The dental health of juveniles was of much importance; industrial dentistry follows on from the school clinic. Here is a valuable medium for education—at the chairside. Mr. Lewty felt that dental examination should be made compulsory for new entrants. The 'new freedom' was not freedom from responsibility. Dentures are frequently broken by accident: they can rapidly be repaired at the factory clinic. In Normandy, mobile dental repairing units had been sent out to deal with this urgent need, thus proving that the number of young men wearing dentures (but otherwise in first-class physical health) is too high. With toxic substances such as lead and phosphorus dental hygiene is highly important. Wholesale extractions frequently mean loss of working time and are of doubtful value. An industrial clinic affords a unique opportunity for collecting information about dental standards in the community. He had not been able to find sufficient time—because of the great demand for his services in a factory with over 10,000 employees—to carry out such investigations, but in the near future he hoped, for example, to gain information as to why so many young people wore dentures.

GLASGOW GROUP

At a meeting held on January 28th Dr. William Blyth read a paper on 'Neurosis in Industry.' He laid stress on the implications of war-time restrictions such as travel, black-out, feeding and canteens.

On February 23rd a symposium on 'Industrial Crippling' was arranged. Dr. A. G. Mearns described the place of the cripple in industry, and the relationship, in this respect, between hospitals, general practitioner, and the industrial medical officer. Miss Jean Alexander, Secretary of the Scottish Orthopaedic Council, presented the views of the social service worker. There was an urgent need for hospitals and industry to get together. The present isolationist attitude must go. There were three solutions to rehabilitation: individual placing in selected light jobs inside the works; reconditioning workshops, e.g. the Austin Motor Company scheme; and rehabilitation centres, probably residential, for workers in heavy industries. Miss Marjorie Simpson, Tutor in Industrial Nursing, Royal College of Nursing, gave her views on the industrial nurse's contribution.
The nurse can be of great service to her medical officer in preparing the report; some of the main points to be covered may be: the accident-prone worker. She maintains contact with the injured man in hospital, and helps with after-care on his return to work. Adjustment in hours of work was improved, and to patients with dietary and work orders require assistance; there is a need for more special diets at canteens. Of much importance is the nurse's responsibility in educating manager and worker in the meaning of rehabilitation.

Dr. A. B. Doig, one of H.M. Medical Inspectors of Factories, read a paper on 'Factory Law in relation to Health' at the meeting held on March 29th. The health provisions of the Factories Act are based on ordinary principles of sound common sense—for example heating, lighting and ventilation. Factory health laws are every bit as important as public health laws. With the tremendous expansion of medical supervision of factories in recent years, especially by busy general practitioners, there was little opportunity for study of legislation—particularly this classical example of Basic English prose! It was to those people particularly that Dr. Doig spoke. A factory means any premises in which persons are employed in manual labour for the making of any article; the cleaning, repairing, finishing, cleaning or washing, or the breaking up or demolition of any article; or the adapting for sale of any article. The Factories Act also covers shipyards and dry docks, buildings and engineering construction works, and premises where gas is stored in large gas holders. He described present-day medical supervision, the appointment of Factory Inspectors and Examining Surgeons, and their duties and responsibilities.

On April 26th mass miniaturized radiography in factories was discussed. Dr. Alex Maclean said that there were certain obvious groups which could be selected for this type of survey, for example the group of tuberculous contacts; this, however, is properly the concern of the tuberculosis officer. Certain age groups showed excessive incidence, for example the adolescent and the period about 40. Certain occupations were more prone to produce the disease than others, for example where there is exposure to silica or asbestos dust. Mass radiography can be applied to persons before employment, during employment, and periodically. Examples of incidence have been 1 per cent. of active tuberculosis among 12,000 applicants for employment in factories in England; 2 per cent. among a group of 417 medical students at a London hospital; 0-77 per cent. of active pulmonary tuberculosis in 18,751 examinations in the Royal Navy and, in another survey, of 0-33 per cent. in 166,598 examinations in the same service; 0-49 per cent. and 0-56 per cent. of active pulmonary tuberculosis in 22,000 and over 100,000 examinations respectively in the Australian military forces; and 0-27 per cent. of active tuberculosis in nearly 20,000 R.A.F. personnel. Most mass radiography units in this country will possess fixed premises from which they will work, but the apparatus is transportable and can be set up at a factory. It may be used therefore in large industrial groups. The first approach to the factory must be made some 8 weeks before it is intended to begin radiography. There is already the sympathetic backing of employers and of Trade Unions throughout the country, and they should, by then, have commented on the schemes to their members. Permission to install the unit must be obtained from the management. Reasons for the survey have to be carefully explained, in particular the fact that the results form the minimum of interference with production. The management must agree that all findings will be confidential between the worker and the medical director of the unit unless with the consent of the individual. This means that the works medical officer is not told the results except by permission of the worker. Time lost by the employees should be paid for, and it has to be clearly understood that all examinations are voluntary. It is suggested that the factory be involved with joint production councils and shop stewards. They will be told that probably 5 per cent. of examinees will require further x-ray examination on full-size films, 2 per cent. with gastric ulcers, at 1 per cent. will be found to have tuberculosis. By this time some four weeks will have elapsed. The rest of the time will mean intensified propaganda by lectures and cinema displays, by posters, by the personal approach by the works doctor, the nurse and the shop steward, and finally through direct appeals by personal notes in the pay envelope. Dr. Stewart Laidlaw said that mass radiography was to detect early cases. Prospects of cure were extremely good. The Government had made special allowances for cases found to be suffering from tuberculosis, and their rehabilitation was a matter of supreme importance. The small film only shows suspicious findings and cannot be diagnostic. Large films were taken in doubtful cases but even these are not final. Further investigations in hospital and dispensaries were necessary for absolute diagnosis.

LEEDS GROUP

At a meeting held on February 26th Mr. R. Broomhead opened a discussion on rehabilitation. The best form of rehabilitation, perhaps, was 'a good walk.' Treatment for fractures consisted of (1) reduction, (2) maintenance until union occurred, and (3) restoration of function. Successful detouring of (2) and (3) produced the good fracture clinic. These criteria in treatment applied also to soft tissue injuries. Definition of rehabilitation was difficult, but Mr. Broomhead suggested that 'restoration of function' covered the field. Function was restored by ordinary physiotherapy; by intensive physiotherapy (sometimes called rehabilitation); by occupational therapy, and by vocational training. In this last phase contact should be made with industrial medical officers. Physiotherapy must take place in hospitals as a rule, although more intensive forms might be carried out at special centres, i.e. for the more seriously injured patient. Occupational therapy could be done both in hospital and at special centres. Vocational training was done at residential centres, Ministry of Labour training workshops, and in special workshops provided within industry itself. Injured workers could be divided into several groups—those who recovered without any physiotherapy; those who needed ordinary physiotherapy; those who required either resident or non-resident rehabilitation; and those who needed training. This phase of training, or retraining, might be carried out at a communal centre and in a large number of centres throughout the country, but much preferred to be treated in their own home towns, but long-term cases might have to go to special centres in the country. There should be an extension of the accident section of hospitals rather than specialized accident hospitals themselves. Segregation of finger injuries, under an orthopaedic surgeon with specialized knowledge, was highly desirable. In Leeds, for example, no headway had so far been made in dealing with this problem of fingers and wound infection.

LIVERPOOL GROUP

At a meeting at Liverpool University on May 16th Professor J. A. Ryle of Oxford University gave an address on 'The Mathematician—Experiments and Prospects.' The Vice-Chancellor was in the chair. Professor Ryle suggested that the physician must in future assume leadership on a larger scale in the social field. Such leadership did not necessarily imply political leadership. He put in a plea for considering social medicine as a discipline, just as clinical medicine was a discipline, and reminded his audience that during the last century this science could be considered as the basis of many forms of discipline. In the first period the great contribution had come from the physician-pathologists,
During the second period the chief contribution had come from bacteriologists and others concerned with the discovery of specific agents of disease. The third period (in which we were living at present) was the period of technical developments, and it is in this period that treatment has been greatly advanced by radiology, endoscopic methods, biochemistry and chemotherapy. In parallel with these advances preventive medicine had made its great contributions, but had been denied a sufficiently close association with the other disciplines. The four disciplines had in fact concentrated attention either on diseases or organs, or on specific causes or environmental factors; all had in some degree tended to distract attention from the patient as a person. Social medicine was particularly concerned with man in relation to his environment and with the more intimate study of etiological factors other than specific factors and including housing, nutrition, social insecurity and ignorance. Although during the period of the industrial revolution we had witnessed a greatly improved control of the infectious diseases we had simultaneously witnessed a rising incidence of chronic diseases connected with the stresses and strains of modern life; gastric and duodenal ulcer, chronic rheumatism, hypertensive and, psychoneurotic. Dr. T. Russell and himself, for students in the clinical period and gave an account of a socio-medical and anthropometric survey of the pre-school child which was to be conducted from the Institute of Social Medicine. He further mentioned the work of the Bureau of Health and Sickness Records, which was supported by the Nuffield Provincial Hospitals Trust and housed in the Institute under his direction. Relations with public bodies were important, particularly with the health authorities of the city and county; these were likely to prove of value in assisting the work of the Institute. In discussing the prospects of teaching and research in social medicine in this country the speaker suggested that other large university cities might well come to establish departments of social medicine and indicated that the work of the Government department might very well in time be particularly directed towards local problems. The natural preoccupations of Manchester and Birmingham, for instance, would be industrial medicine. Cardiff might be interested in the social medical problems of mining areas. Why should not Liverpool direct its attention to the very pressing problems of maritime hygiene? The health and sickness problems of the merchant seaman, at sea and ashore, and the poor hygiene of our ships, gave cause for grave concern. Shipowners, like the great industrialists, should be more familiar with human needs and with the contributions which medicine and hygiene and welfare services could now make to the improvement of living and working conditions and incidentally to efficiency and output.

NOTTINGHAM GROUP

At a meeting on March 16th Mr. S. A. S. Malkin opened a discussion on ‘Rehabilitation.’ Before the war the word was used mainly to describe the process of retreating which was necessary when a man was severely injured and not return to his work. During the war it had taken on another meaning. It is used to cover the whole process of treating a man who has been injured, beginning with the initial treatment and continuing until he is fit for his occupation or has been retrained for new work. In the past, in the treatment of a man with a fracture, there has been concentration on the fracture itself, but now it is realized that if a man is to return to work all secondary factors which might cause delay must be eliminated. Essentials in a hospital rehabilitation service in contra-distinction to retraining (vocational training) were as follows: (1) Not to lose the continued treatment and the man’s confidence. (2) Anxiety or worries that he may have, and which are apt to delay his recovery by reducing his will to get well, should be eliminated by the help of the almoner who can act as an intermediary between him and his company and the compensation authorities, and who can, if necessary, help in dealing with any domestic difficulties which may have arisen. (3) His interest should be kept up by giving him occupational therapy, the facilities of a good library and encouragement in anything which will prevent him from stagnating. (4) Exercices which will keep the part of his body which has not to be immobilized on account of the injury as fit as possible, so that when he is able to get up this will not delay his progress. All these factors are very important and help to reduce or avoid any injury which might cause. Vocational training is required by some who are so injured that they cannot return to their pre-accident work. A scheme has been prepared which will be sponsored by the Ministry of Labour, but not under the control of the Wood Orthopaedic Hospital. It will be managed by an independent committee and will take patients from a large area and train them for suitable work. This scheme has the approval of the Ministry of Labour, which is prepared to send suitable cases to the centre when it is erected. Steps are now being taken to raise the necessary funds for this and it will be started as soon as they are available. This project will combine voluntary enterprise with government support and should be elastic and able to meet individual needs of either of men or industries, so that they may be trained for and provided with the employment which they can undertake.

Such a scheme should have a dual effect on heavy industries. It will help men to feel that if they are injured they will not be thrown on the scrap-heap and have to exist on compensation for the rest of their lives, but that they will have the chance to start new lives in which they will be self-supporting and independent of compensation.

The annual meeting of the group was held on April 20th, 1944, followed by a discussion of the white paper on a national health service opened by Dr. J. C. Bridge. He said that many would feel a certain amount of disappointment that an industrial medical service was not included in the suggestions of the Government. The proposals for the national health service were apparently restricted to the establishment of a personal health service. It was stated in the white paper that the subject of health involved not only medical services but also the environmental factors which create conditions of health and prepare the ground for it. The proper continuance of the environmental and preventive services in school and industry might well be coupled with the habit of using for these services doctors who were also engaged in the personal health service. It was quite clear, therefore, that services other than those relating to personal health, including industrial health, had not been lost sight of, and the linking up of these with the personal health service was contemplated. It was not claimed in the white paper that the proposals constituted a comprehensive medical service. The Ministry of Labour, however, had compulsory powers to enforce the appointment of industrial medical officers and these powers were probably used after the war. And appointments made a statutory obligation. Prior to the war, generally speaking, the only doctors supervising industry were the Medical Inspectors
of the Factory Department and the Examining Surgeons. It was possible that part of the medical service in industry would be effected through the Examining Surgeon, but there was no reason why the general practitioner or the medical officer in charge of a health centre should be excluded. Dr. Knox was taking his share of the work. On the other hand, so far as the white paper was concerned, there was nothing to prevent the establishment of an industrial health service as distinct from a personal health service, nor was it necessarily to be supposed that such a service would be under the direction of the authority responsible for the administration of the latter.

In the discussion which followed, Dr. Knox asked whether the Examining Surgeon doing industrial work would be paid by the government or by the employer. Dr. H. A. Summers pointed out that the Factory Examining Surgeons were all general practitioners and in many cases had not experience of factory conditions but had to adjudicate for workmen’s compensation. He did not like the idea of one whole-time industrial medical officer dealing with several firms. He thought that each organization, if it were not large enough to justify a full-time medical officer, should have its own part-time medical officer. Dr. G. E. Collis felt that doctors concerned with industrial work should be concentrated into three groups. Firstly the Medical Inspectorate of the Factory Department of the Ministry of Labour who should maintain close touch with their non-medical colleagues such as chemists and engineers. Secondly the full-time medical officer of whom there were two classes, the first connected with large industries without any special hazards, and the second engaged in industries which were not necessarily large units but associated with a special hazard. In both of these groups the medical officer was to be regarded as a specialist. The third group of medical officers in industry and such the largest was that comprising those organizations having no special hazard and not employing unduly large numbers, in which a specialist industrial medical officer was not required, and for which a part-time medical officer was sufficient. He was of the opinion that payment of the industrial medical officer by the employer was entirely satisfactory and that those who felt anxiety over the possibility of a medical service in industry being discontinued for financial reasons had no grounds for their fears. Once a medical service had been established the employer found that it paid him to continue it. Dr. Collis hoped to work from the health centre in future and felt that this had great advantages in that it enabled contact to be maintained with colleagues. The full-time industrial medical officer had the disadvantage of being out of touch with his colleagues and, the Dr. Collis took a very different view of some of his patients since he had been a part-time medical officer. Dr. T. A. Lloyd Davies said that the relatively few members of the Factory which the part-time medical officers might be regarded as the ‘specialists’ of industrial medicine, and part-time medical officers as the ‘general practitioners’; but it was important that there should be one service, and the work of the factory medical officer should be extended to include that of the Examining Surgeon and the narrow restrictions now placed on Examining Surgeons should be removed so that they might be more approximate to factory medical officers. Dr. Whinstock thought that the existing office of Examining Surgeon might well be replaced by the part-time medical officer. Apart from the danger of special hazards he considered that the part-time medical officer was fully able to meet the needs of the situation. Dr. N. L. Lloyd was on the whole against the idea of the part-time medical officer. He thought that so far as large towns were concerned, it would be better to divide the work between whole-time men rather than great numbers of part-time medical officers.

Dr. Bridge then put two questions to the meeting. Was it agreed that an industrial medical service was required? If so, should the industrial medical service be considered as part of a future comprehensive medical service? The first question was answered in the affirmative and the second, in both, by an unanimous vote.

The next meeting took the form of a visit to Kirkby Colliery. Members attended in two groups, one on May 24th and the other on May 25th. None of them had ever been underground before and the visit impressed them with the importance of medical supervision in the coal-mining industry. The stringent precautions taken to prevent accidents were such that a marked impression was made, one which was not likely to be forgotten.

The twelfth meeting took place on August 24th, and consisted of a demonstration by Mr. A. H. Walters of treatment methods in use at the Casualty Department of the Royal Albert Dock Hospital, London. Mr. Walters first described the protection of dressings. Sepsis sometimes arose because of constant penetration of oil and grease through dressings. Wounds can be closed by the application of a solid material such as plaster of Paris or Vizad over the dressings. Alternatively, as Vizad over the dressings during work. Plaster of paris cots can well remain on for several days, provided primary treatment is adequate. Disadvantages are: liability to become bloodstained from the inside, and dirty, wet, or oiled from the outside. Generally speaking, heavy workers prefer plaster cots, especially for the first week; and lighter workers ordinary dressings protected by Vizad, during working hours.

Three main points in the treatment of finger injuries are: early treatment to avoid sepsis; keep the part protected and dry; a streamlined dressing to permit rhythmic hand and finger function. Chemical methods can combat sepsis. Protection, and keeping a dressing dry, is often difficult. Vizad is an adhesive viscose film 0.003 mm. thick, specially treated for fluid resistance. It can be easily wiped clean and is without bulk or weight. In Mr. Walters’ experience over 80 per cent. of accidents to manual workers involve fingers. Injuries include: superficial lacerations requiring first-aid treatment; deeper lacerations with or without crushing, requiring works surgery treatment; crushes without laceration or fracture, and minor slipping with removal of some tissue also requiring treatment at the works surgery; and compound injuries, requiring hospital treatment. First-aid measures include the application of 2 per cent. brilliant green with spirit, and protection at work. Deeper lacerations can be treated with 1 litre of 1 litre of buffered proflavine sulphate solution for 15 minutes; minimum debridement; examination for tendon injury; removal of foreign bodies; laceration repair by closely placed horsehair or plastic sutures; removal of pain due to bleeding under nail by trephine. Before sending cases of fracture and severe injury to hospital, these simple measures can be carried out. During this time the patient can be treated for shock.

After the meeting Dr. Lloyd Davies showed cases of dermatitis treated by prolonged soaking in 1 in 1000 potassium permanganate solution, followed by 90 per cent. alcohol, the application of lot. calamin, and an open wove gauze dressing applied to the affected part by stitching the edges together over it.