Physiotherapy in Industry

A meeting held by THE TYNESIDE GROUP in Newcastle-upon-Tyne on 27th November, 1956

Guest speaker: A. ZINOVIEFF
FROM THE DURHAM AND N.W. DURHAM HOSPITAL GROUPS

Dr. Zinovieff said that he was particularly pleased to be invited to a meeting of industrial medical officers because soon after the last war, when at Oxford, he had had the opportunity to work in collaboration with two industrial physiotherapy units. He thought that a physiotherapy department in a works was capable of performing a very useful function in permitting early treatment of injuries and other conditions by saving time and relieving stress on the hospital department. To fulfil this function it was essential that the medical officer in charge should work in close co-operation with general practitioners and with the hospital. His aims should be to use short intensive spells of treatment lasting, say 4-6 weeks and to prevent his department from becoming a “dumping ground”.

For the guidance of those who might be considering setting up a physiotherapy department Dr. Zinovieff went on to speak of staff and equipment. He considered that one trained physiotherapist could deal with 3 to 6 patients per hour or about 20 to 40 patients in a 7-hour day, which amounted to a full-time working week of about 38 hours over 5½ days, which was within the limits recommended by the Chartered Society of Physiotherapy. A shortage of physiotherapists, due to the rather small number of students which could be taken by the schools, in turn due to a lack of teachers, might unfortunately make it difficult for an industrial organisation to recruit a qualified C.S.P. physiotherapist. It was generally believed that the shortage of physiotherapy teachers arose from the fact that the two years extra training required was not encouraged by sufficient financial incentive; indeed, it was possible for teachers of physiotherapy to be at a financial disadvantage compared with their non-teaching colleagues. While this shortage existed, industry might solve the problem by recruiting physiotherapists qualified elsewhere—by the Faculty of Physiotherapists or the British Society of Physiotherapists, for instance—though there was no doubt that the Chartered Society physiotherapists were the best available.

The salary for the physiotherapist would amount to £520 x £15 to £580 p.a. if in sole charge; otherwise slightly less. And the capital cost of equipping a room about 24 ft. x 16 ft. with apparatus for use by one physiotherapist would amount to about £650. Individual items were as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost (£)</th>
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<tbody>
<tr>
<td>3 massage plinths</td>
<td>45</td>
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<tr>
<td>2 radiant heat lamps</td>
<td>64</td>
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<tr>
<td>1 ultra-violet lamp</td>
<td>65</td>
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<tr>
<td>1 short wave diathermy apparatus</td>
<td>240</td>
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<tr>
<td>1 electrical treatment apparatus</td>
<td>90</td>
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<tr>
<td>1 faradic stimulator</td>
<td>24</td>
</tr>
<tr>
<td>1 paraffin wax bath</td>
<td>38</td>
</tr>
<tr>
<td>1 Clement multiple purpose exerciser</td>
<td>43</td>
</tr>
<tr>
<td>1 weight lifting equipment</td>
<td>7</td>
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<tr>
<td>Blankets, electrodes, etc.</td>
<td>41</td>
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£657

If there were also a room available of about 30 ft. x 15 ft. it could be converted into a gymnasium for group treatment which would be of special value in some cases and economical of physiotherapists' time. The value of the Clement Exerciser was also stressed.

Dr. Zinovieff concluded by saying that he thought that the disabled who wanted to return to work were more easily resettled if they could graduate through a works physiotherapy department with the special interest of the industrial medical officer. A rehabilitation workshop or sheltered workshop helped towards this end but it was only possible in large factories which used a great number of light machine tools, those at the Vauxhall and Austin motor works being excellent examples.
Dr. J. Seymour Hunter (Area Medical Officer, Durham Division, National Coal Board, and Medical Officer-in-Charge of Londonderry Dene House Rheumatic Clinic, Seaham) spoke about the advantage of a physiotherapy and rehabilitation centre to industry from the point of view of an employer, 13,000 miners being employed within a radius of three miles, and travelling is thus kept to a minimum.

1. It is in the centre of a concentrated coalmining area, 13,000 miners being employed within a radius of three miles, and travelling is thus kept to a minimum.

2. Patients can in certain cases attend the clinic while continuing their work, as they live nearby. Therefore absence due to accident or rheumatic disease is lessened.

3. As the clinics are attended by N.C.B. Medical Officers, who also visit the Medical Centres at the collieries, cases may be followed through from the beginning to the completion of the treatment, and any necessary rehabilitation can be arranged direct with the colliery manager.

4. The pressure on physiotherapy departments of the adjacent hospitals is considerably lessened.

The Chairman, Dr. R. R. Dodd (N.C.B.) thanked the two speakers for their papers and invited those present to join in a general discussion.

Dr. McLean (Vickers-Armstrongs (Engineers) Ltd.) said that he employed a male physiotherapist as he found there is less friction between a male physiotherapist and other members of the nursing staff. His own department, which dealt with 3,000 patients a year, was equipped as Dr. Zinovieff outlined, but in addition he had an ultrasonic apparatus. He found very good results from this, and treatment only took 10 minutes compared with 20-30 minutes for other kinds, but he knew that authoritative physiotherapists were somewhat contemptuous of it. There used to be a rehabilitation workshop at Vickers shipyard at Barrow but it had been closed (owing to there being no “assembly line” for which work could be done and to difficulties over piece work rates.)

Dr. Zinovieff replied that, from his experience with arthritic cases, ultra-sonic treatment was no better than any other kind and it took 20 minutes of the physiotherapist’s full attention. He had no experience of its use in acute soft tissue injuries. In general he thought that the German claims were exaggerated and he preferred to keep an extra piece of apparatus out of his department.

Dr. W. T. Jones (Nuffield Industrial Health Survey on Tyneside) asked how far a State Registered Nurse could be taught to use physiotherapy, in view of the shortage of physiotherapists.

Dr. Zinovieff felt that this bordered on the realm of politics but he saw no reason why State Registered Nurses should not learn the basic remedial exercises and the use of radiant heat and ultra-violet lamps. He did not think that they should be taught massage or electrical treatment.

Dr. Jones thought that industrial physiotherapy departments might take over a good deal of the hospital work.

Dr. Zinovieff said that this was not done because many acute conditions which were likely to be treated in the industrial department would in any case get better before they could keep their appointment with a hospital physiotherapy department.

Dr. Hunter asked Dr. Zinovieff if physiotherapists had a “closed shop.” He asked whether qualified were allowed to work with unqualified?

Dr. Zinovieff replied that there was nothing laid down against it, but there might be individual objections.

The Chairman pointed out that the School of Physiotherapy in the Royal Victoria Infirmary, Newcastle-upon-Tyne, could only take 20 new students annually, and, as the course lasted three years, there were about 60 students in the school. If it were reckoned that about 5 of these 20 failed before the final examination the potential of qualified physiotherapists from this school was only about 15 a year. When it was remembered that other schools were as far away as Leeds and Edinburgh it was easy to see how there is a shortage of chartered physiotherapists; and girls of their age naturally accepted posts in the towns where there was some social life for them. Again, as the number of applications always exceeded the number of vacancies in the schools the students were “specially selected” with the inevitable result that a good number married soon after qualifying and in most cases were lost to the profession. Of the remainder, an increasing number of the recently qualified were attracted abroad by the salaries offered and the chance to see the world which meant a further depletion in the number of applicants for posts in this country.

Dr. Zinovieff agreed with these views, and said...
that if one could not obtain chartered physiotherapists for industrial work, after some effort to do so, then one should write to the C.S.P. to provide more evidence of the need to increase the intake of students to the schools, so that they could press for more attractive terms for the teachers.

DR. JONES asked what untapped reserve of married physiotherapists were available for part time work.

DR. ZINOVIEFF replied that 60 per cent of physiotherapists were lost through marriage within two years of qualifying and the vast majority of these were not available for part time work.

DR. J. T. HOLLIDAY (Consett Iron Company Ltd.) said that production managers were rather loath to employ persons who could not carry out their normal duties and that with the improved standards of living (together with Common Law claims) employees did not return until reasonably fit, so that the number of cases needing active help were few. Also, a physiotherapy unit removed the incentive for the patient to get well by his own efforts as he tended to rely on physiotherapy to provide it for him.

DR. MCLEAN replied to this by quoting from his own experience in taking over a litigious shipyard. The introduction of a physiotherapy department was followed by a 78 per cent fall in the number of claims.

DR. ZINOVIEFF thought that there was no need for pessimism; for among 300 cases which had passed through the Hermitage Rehabilitation Centre, Chester-le-Street, in a year, only four had made Common Law claims.

DR. G. WILTHEW (National Coal Board) disagreed with these figures and thought that the real proportion was much higher.

DR. ZINOVIEFF felt that in any case the fundamental point was that in a physiotherapy department within a works one could keep a strict eye on the length of treatment.

DR. F. J. ROBERTSON (Felling Industrial Rehabilitation Unit, Ministry of Labour) said that in his opinion the difficulty about getting even simple cases back to work quickly was that they lost their Industrial Injuries Benefit and any Industrial Injuries Pension awarded was not sufficient incentive. He thought that it could be arranged that it became so, and that in the long run the man and the country would benefit.

DR. ZINOVIEFF thought that another important fact was that very few surgeons were interested in rehabilitation and an early return to work.

DR. MACLEAN and DR. ROBERTSON expressed agreement from their own experience of the very few cases referred to them direct from surgeons.

DR. JONES wondered if the rehabilitation centres would not become overcrowded if all surgeons became rehabilitation minded.

DR. ROBERTSON felt that too often the cases referred to him were people who would never be fit for work and their morale was raised only to be dashed again when they found they were unemployable in industry.

THE CHAIRMAN now called on Dr. A. Ruffman to propose a vote of thanks.

DR. RUFFMAN (Associate Member) said much had been heard in praise of physiotherapy and nothing against it, so he might be excused for saying that, in his experience as an M.N.I. Medical Referee, physiotherapy tended to start too late and to go on too long. Also he thought there was a tendency for physiotherapists to talk too much to their patients and sometimes advise on some course which it might not be possible to follow. He had thoroughly enjoyed the evening and thought that there had been a most interesting discussion for which the thanks of the evening were due to Dr. Zinovieff and Dr. Hunter for their stimulating remarks and replies.

DR. ZINOVIEFF in reply said that Dr. Ruffman's remarks emphasised the need for a physician to have adequate control over a physiotherapy department and for the employment of qualified physiotherapists who would be less likely to indulge in careless talk. He had thoroughly enjoyed the evening and thanked the Group for the opportunity of taking part in their meeting.

The Clement Universal Weight and Pulley Apparatus

(Illustrated on opposite page)

This is a machine for resistance work for muscles, which occupies little space. It requires no attachment to wall, ceiling or floor and can easily be adapted for exercising all limb and trunk muscles.

The single unit, illustrated here, is the basic one but it can be built to exercise up to 8 patients at a time, depending on the requirements of the department. The overall dimensions of the single unit are approximately: length, 4 ft.; height, 7 ft.; depth, 4 ft., 3 in.

This equipment has been designed and is being produced commercially by Mr. M. Clement, M.S.R.G., Senior Remedial Gymnast at the Durham Miners’ Rehabilitation Centre, The Hermitage, Chester-le-Street, Co. Durham.