Brit. J. Sports Med. – Vol. 15, No. 1, March 1981, pp. 39-43

THE INJURIES SERVICE AT THE CRYSTAL PALACE

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ORIGINS OF THE INJURIES SERVICE

The Injuries Service at Crystal Palace was set up in May 1976 to help sportsmen in the final stages of their training for the Olympics of that year. The service was largely directed towards athletics, and it functioned on Sunday mornings, Tuesday and Thursday evenings, when the track was open for training. A group of physiotherapists covered the three-hour sessions, while on Sunday mornings a doctor was also in attendance, again on a rota basis from a group of interested practitioners. The experiment was a great success, and very much appreciated by those who received treatment within the service. Therefore not only was the service continued after the Montreal Olympics, but plans were made to extend it, and in May 1977 Dr. Frank Cramer was appointed Medical Officer to the Centre, to oversee the functioning of the Injuries Service.

PROBLEMS OF THE ORIGINAL INJURIES SERVICE

While the service fulfilled a valuable function, there were certain limitations inherent in its part-time operation. It was difficult to maintain continuity of treatment, or accurate records, or follow-up of patients where this might have been appropriate. The service catered mainly for elite athletes, whereas the Sports Centre provides facilities for numerous sports, with participants at all levels. There was also evidence of abuse of the service by a minority of athletes who would present at frequent intervals with trivial complaints requiring only one or two treatments, usually doses of ultrasound. The Service therefore tended to be dominated by athletes suffering from poor training preparation, or from the condition euphemistically termed "athlete's head".

DISCIPLINE IN THE USE OF THE INJURIES SERVICE

It was clear that the most efficient way to counteract the abuse of the Service would be to impose a disciplined referral system on patients applying for treatment. This would consist of defining eligibility for treatment; complying fairly strictly with the ethical code governing physiotherapy practice in relation to medical cover; and increasing communication with the coaches supervising the sports participants. These aims became a possibility when a full-time practitioner was appointed to the Injuries Service.

Eligibility for the Service was defined as membership of the Centre's "Authorised User" scheme, under which participants pay a relatively small sum (£6 in 1979) for a year's use of the Centre's facilities.

Direct application to the physiotherapist for treatment could only be made for an immediate injury, when treatment would consist of first-aid and advice, and would be an extension of the first-aid service already provided at the Centre by the St. John's Ambulance Brigade volunteers. Longer-standing injuries would be treated only on referral from a doctor, or, under the aegis of the Centre Medical Officer, from the patient's coach. Doctor referrals would be accepted from outside the Centre, or the patient could be referred through the Sunday morning doctors' clinic at the Centre, which was to continue functioning by rota.

Better communication with the coaches aimed not only to provide more reasoned, and quicker, referral of injuries, but also to ensure better co-ordination of rehabilitation to full fitness following injury. This would increase control over the patient's progress, and minimise the possibility of conflict between treatment and training needs.

MEDICAL COVER

The Injuries Service would not be viable practically or ethically without a background of comprehensive medical cover. Medical control ensures that all patients requiring treatment have real, rather than imagined injuries. More importantly, the doctors deal with any more series conditions presenting within the clinic, and differentiate between medical and mechanical disorders, so preventing inappropriate treatment for the diseases which occasionally appear in clinic under the guise of sport-induced strains.

The facilities for carrying out medical investigations or treatments on site are extremely limited. Fortunately,

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or accordingly, the proportion of patients requiring specific medical care within the Injuries Service is small. In 1979, a total of 587 patients with 896 injuries presented within the Injuries Service. Of these, only 22 patients were sent to hospitals for out-patient investigations; 36 were referred back to their general practitioners, who in turn referred 36 (different) patients to the Injuries Service for physiotherapy treatment; 17 patients were referred to specialists for chest, rheumatological, ear, nose and throat, and skin complaints; 23 were referred to orthopaedic specialists; 64 were advised to obtain X-rays of their injuries.

Besides having links with local hospitals and general practitioners, the Injuries Service maintains direct links with a variety of other hospitals through the group of doctors covering the Sunday morning clinics, who are all at senior registrar or consultant level. The Centre Medical Officer oversees co-ordination of the Service, and he also provides general practitioner services for the residents in the Centre's hostel. The Injuries Service therefore has a wide range of channels for providing general and specialist medical care. The majority of injuries seen within the Service are mechanical strains, affecting joints, bones and soft tissues, so the most directly relevant medical speciality is orthopaedic. For this reason, an experimental monthly "Orthopaedic Clinic" has been set up in 1980, under Mr. John King.

Although a medical practitioner is not always present at the Centre, most non-urgent injuries and conditions can be dealt with quickly under the existing medical set-up. For major accidents, excellent casualty cover has always been provided by the local hospitals, most notably King's College and Mayday. All patients presenting with immediate, more minor, injuries when there is no doctor on duty at the Centre are routinely advised to consult their own doctors, or local casualty departments, in the case of non-abatement or exacerbation of symptoms. First-aid services at the Centre are provided not only within the Injuries Service, but also by St. John's Ambulance Brigade volunteers, and by Centre staff with a first-aid qualification. Regular courses in first-aid, according to the St. John's syllabus, are held within the Injuries Service for the Centre staff.

PATIENT TURNOVER

The scope of the Injuries Service naturally increased when the service became full-time in September 1978. In that year, patients received a total of 2,234 physiotherapy and first-aid treatments within the service. 587 patients presented with 896 injuries, in that year, as compared with 449 patients and 666 injuries in 1978; 284 patients, 415 injuries in 1977; and 295 patients with 446 injuries between May and December 1976.

The range of sports represented among the patients also increased. In 1976, apart from patients categorised as general sportsmen, officials and staff, 29 separate sports were counted among the patients, including 17 athletic events. In 1977 there were 28 sports. In 1979, the number of sports increased to 46, including 22 athletic events.

The great advantage of having an Injuries Service within a sports centre is that injuries can be seen and treated early. Of the 896 injuries seen in 1979 at Crystal Palace, 133 were seen immediately after the occurrence, 207 one to three days afterwards, and a further 130 within four to seven days. Of the total injuries, 619 were seen within two weeks of the injury occurring. Chronic injuries of six months and more amounted only to 88.

OTHER FUNCTIONS OF THE INJURIES SERVICE

The function of any Injuries Service is to treat injuries as they occur, but a further role related to this is the prevention of injuries. This is largely an educational process. In the background to any educational programme, there has to be research.

Education for injury prevention can be seen in terms of teaching coaches, teachers and sports participants about preventive measures such as warm-up and warm-down routines; flexibility programmes; progressive and graduated training; and prophylactic procedures such as massage.

At Crystal Palace, we organise courses in massage and its uses in sport, linked with prevention and basic first-aid for soft-tissue injuries. These courses are currently organised for P.E. students, but we hope to be able to extend them for coaches and interested sportsmen, should staffing levels ever permit.

The other educational function of the Injuries Service lies in demonstrating soft-tissue injuries and their treatments to physiotherapists and other practitioners in general practice. Quite often, this type of injury may present in general practice, but not in sufficient quantity to be recognisable instantly to the practitioner. This aspect of education is mainly done through occasional lectures.

Research would be vital in improving methods of prevention and cure of injuries. As we have quantified injuries in relation to events, with records of the circumstances in which the injuries have occurred, various questions inevitably are raised. For instance, all the cases of shin soreness and lower limb stress fractures recorded are directly linked to increases of repetitive training on hard surfaces, such as synthetic tracks, and pavements. It could then be asked whether it would be possible to avoid this condition by a more carefully graduated training programme, or is there some underlying factor in the patient's muscles, bones, etc., which would inevitably result in the condition once a certain level of

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training was reached? Curing the condition and preventing recurrence are equally open questions. The numerous hamstring strains, especially in short-distance runners, can be seen to occur in about five circumstances, from our records. It would be interesting to assess whether increased flexibility would reduce the incidence of injury, or whether it would be more important to strengthen the muscles in parts of their range of action where they can be seen to be relatively weakened. As regards Achilles tendon strains, the quantity of them should be sufficient to put the shoe manufacturers to shame, as the great majority are cases of peritendonitis directly referrable to friction from the iniquitous heel-tabs.

FINANCE OF THE INJURIES SERVICE

The limiting factor in extending the activities of the Injuries Service on the educational and research side, and indeed even expanding sufficiently to cope with the increasing number of patients, is inevitably funding. A permanent staff of one, even with the excellent help of a few enthusiastic physiotherapists on a sessional basis, cannot hope to achieve such a large work-load, or even to provide much-needed physiotherapy/first-aid cover for the Centre during all its working hours. The Injuries Service is currently financed within the overall Centre budget, and therefore has virtually no hope of expansion in these times of economic restraint.

Alternative methods of funding

Various methods of generating income for the Service have been examined. Charging fees from the patients would be logical, but problematical. A nominal fee (anything from 50p to £2.50p) would hardly justify the increased administrative costs of collecting it. Even the lowest fee would probably act as a deterrant to the patients of school-age, the majority of patients treated. This would be most undesirable, as injuries in growing children may lead to later more damaging problems if not properly checked quickly. Only some of the young patients will be future champions, but most will become workers, so there is a strong justification for maintaining the Injuries Service for their benefit. Fees would also be problematical in relation to the doctor's service and the first-aid provision.

It could be feasible to organise a kind of group medical insurance scheme, perhaps as an additional charge on the Authorised Users' subscription, which is paid by some 15,000 participants annually. The possibility of medical insurance for sportsmen is currently under investigation.

Sponsorship would be another alternative, although it can only be considered in a limited form, in view of the ethical necessity of maintaining the unit's independence from direct commercialism. In practice, the Injuries Service has only functioned thanks to a limited kind of "sponsorship". Most of the equipment in it has kindly been given on loan by various sources, for very little return. The International Athletes' Club bought an ice-making machine in 1979, and installed it in the Injuries Service; prior to the Olympics this year (1980), we received the loan of a Diapulse machine; Spenco have donated first-aid items, and their products for foot care; Portabell have supplied us with their weight-resistance bands, which have been very useful in view of the limited facilities for specific exercise within the unit; Briton International have lent us large exercise mats, to soften the "floor" exercises. Most of all, the Injuries Service has a special debt to Rank Stanley Cox, of Ware, Herts. They lent us all the basic equipment when the unit was first set up. Without their couches, ultrasound machines, faradic units, infra-red lamps, trolleys and other items, it is unlikely that the unit could ever have been started.

JUSTIFYING THE INJURIES SERVICE

There are practical justifications for seeking to expand the existing Injuries Service at Crystal Palace. The ideal sports medicine unit would combine an injuries treatment and prevention service with facilities for all kinds of physiological testing, and other aspects of sports medicine. Examples of this type of sports medicine unit can be seen in other countries. In Britain we have, around the country, respected centres for such aspects of sports medicine as physiological testing and drug testing, but pathetically few units dealing with the needs of the injured sportsman.

It has been argued that treatment for sports injuries should be provided within the National Health Service. Ideally, this should be so, and good co-ordination between general practitioners, casualty and physiotherapy departments should provide the immediate service the injured sportsman needs. However, the Health Service is suffering cutbacks, sometimes affecting even essential services. Many sportsmen have injuries which are essentially trivial, although they have major consequences in that they limit the patient's activities. There is surely a strong argument for keeping such patients out of NHS departments which are generally full of cases with more pressing and fundamental needs.

This is not to say that independent injury treatment units should be totally divorced from the NHS. The Crystal Palace records show that only a small proportion of the patients seen require medical treatment. These patients should generally be seen in the NHS system, unless they can afford private treatment, or unless we are to build special "sports medicine hospitals" funded by ?the Sports Council, ?sponsorship, ?insurance schemes. In the context of the general "sport-for-all" policy in Britain, it is more reasonable to assume that the NHS should take responsibility for patients requiring

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specialist medical care. Injury treatment units such as that at Crystal Palace should work in close co-operation with the NHS departments, to the mutual benefit of each.

The educational side of the Injuries Service should result in an increased awareness of safety in exercise, and therefore a reduction in injuries for sportsmen at all levels. Those methods of treatment found to be effective for sportsmen can be applied to non-sporting patients in general physiotherapy and medical departments. Not all soft-tissue injuries occur during sport, but the great numbers which do make the Injuries Service the ideal place to experiment with varying treatment methods. The results of this research can then be used to benefit the general population, and so increase the fitness and health of any member of the community.

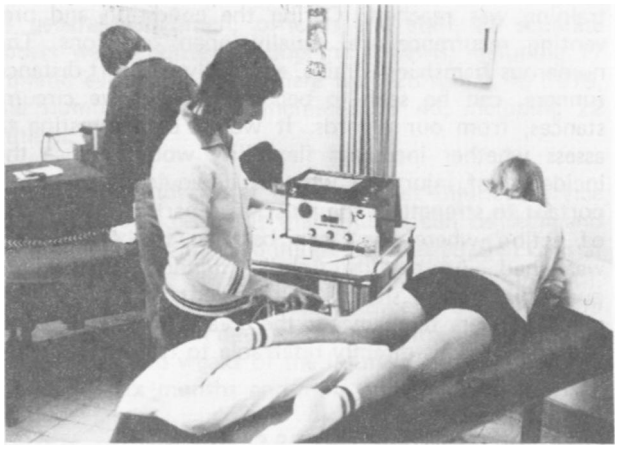
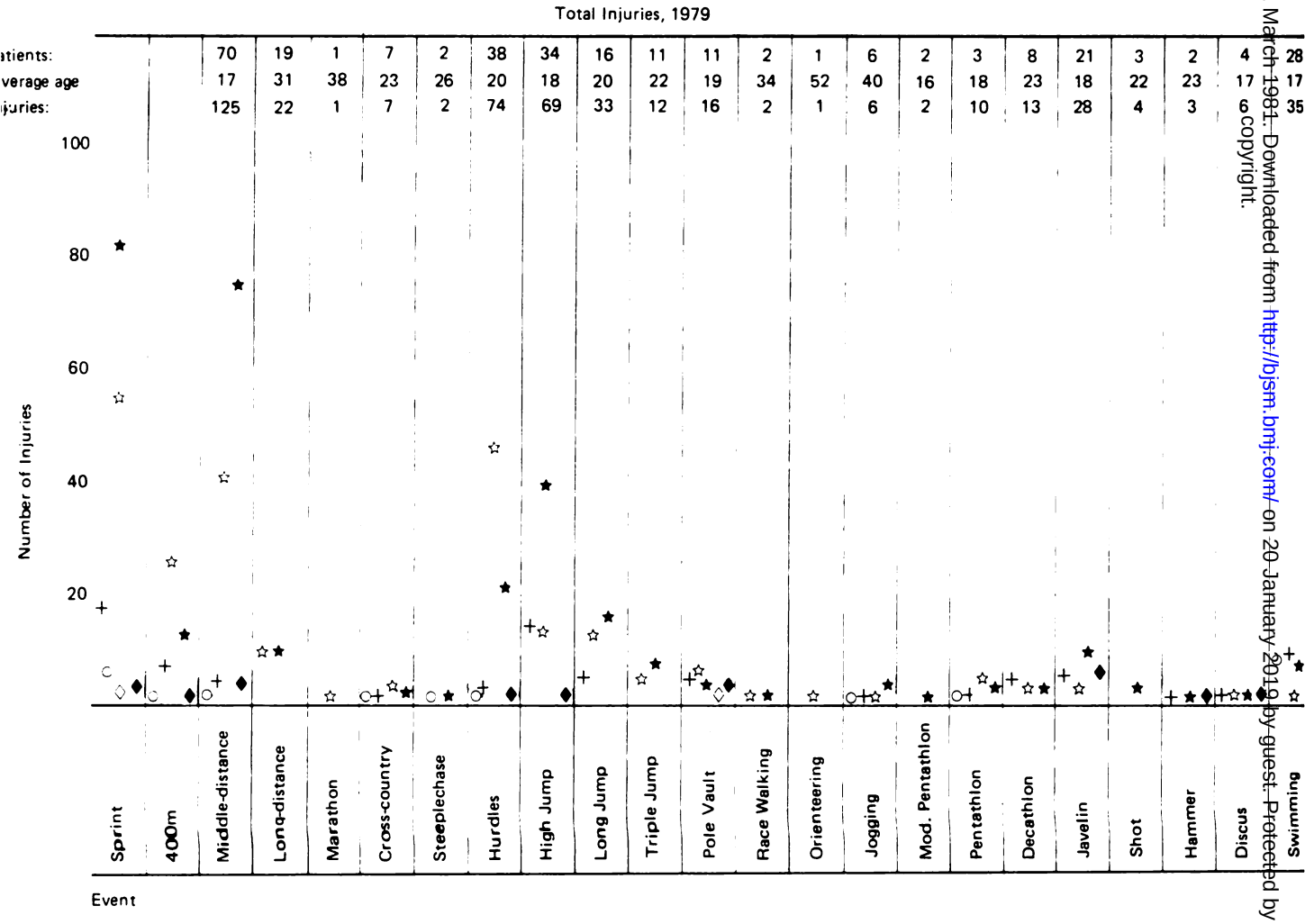


Fig. 1: The Centre's Physiotherapy Department (photo courtesy of 'Remedial Therapist')



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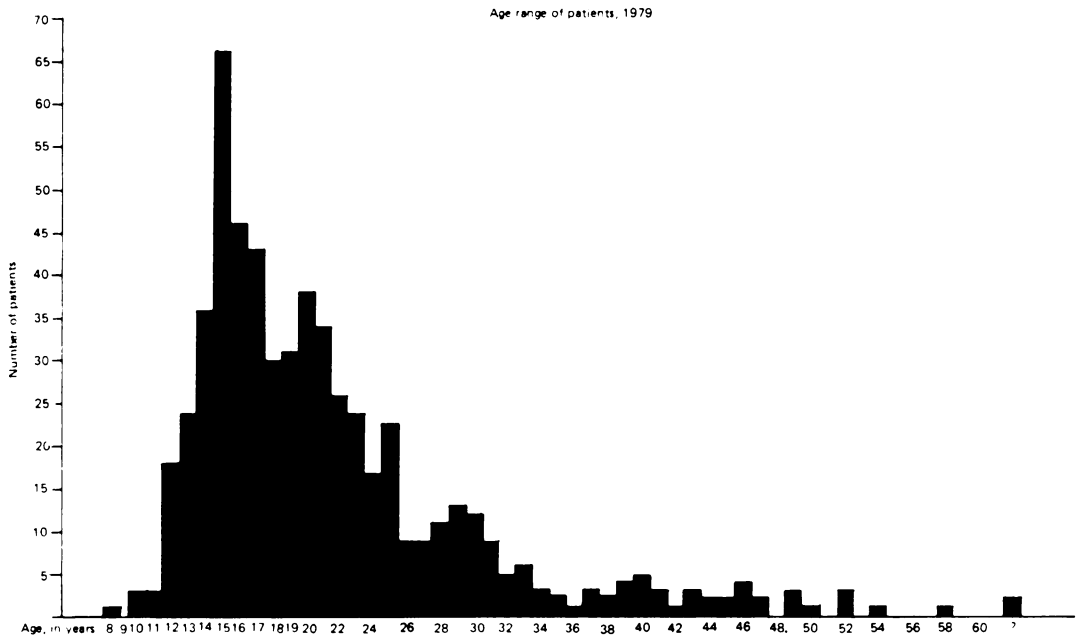

Total Injuries, 1979

9	10	24	9	17		6	1	1	2	4	4	4	1	10	5	1	4	1	5	1	5	2	28	9	8
19	18	26	22	22	20	19	21	10	23	19	30	21	31	33	35	54	19	28	28	20	38	11	18	44	38
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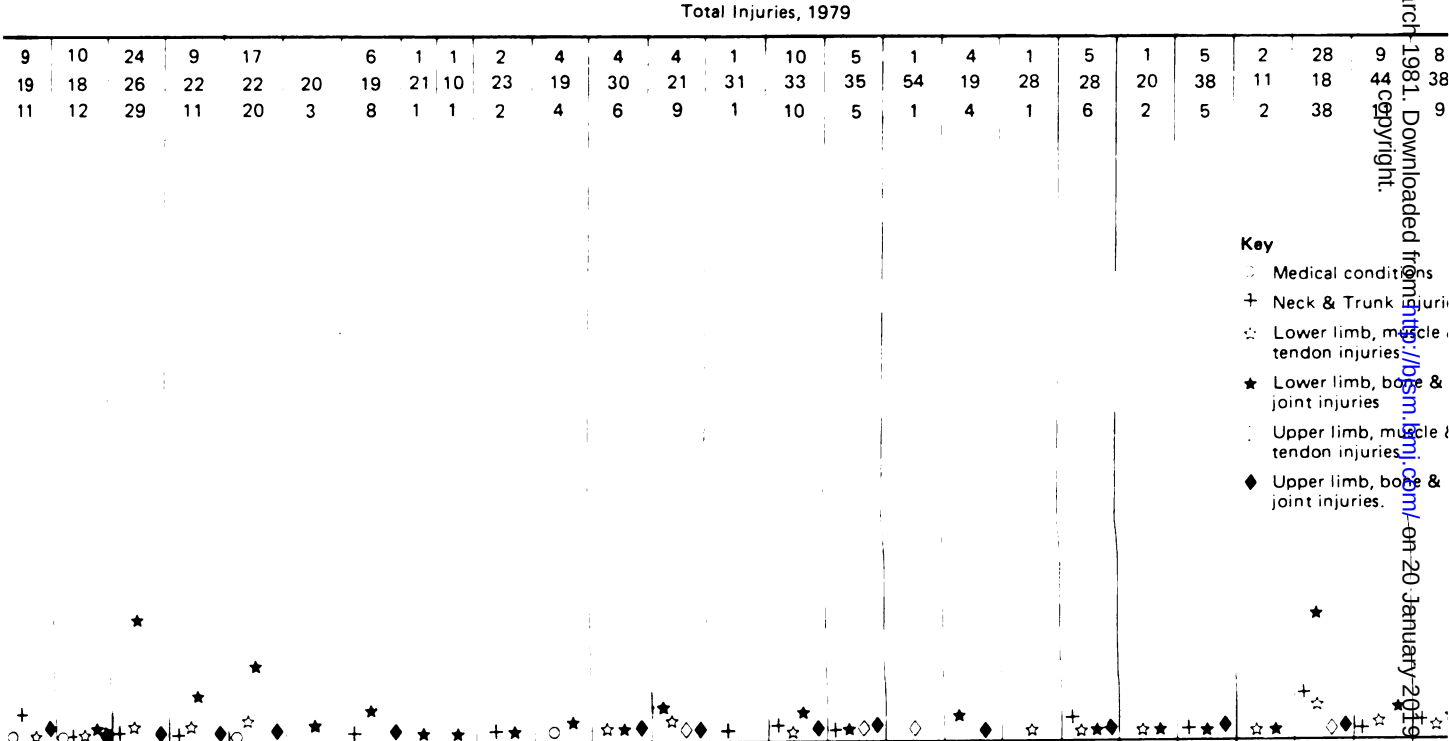

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