

# Medical cover for 'The Open' golf championship

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**A review of 10 years' provision of medical cover at a major golf championship is presented. The average consultation rate was approximately 1 in 200 of those attending of whom 3% required transfer to hospital, the majority to orthopaedic or general medical departments. Familiarity with acute resuscitation and musculoskeletal complaints is required of the medical attendants. The provision of physiotherapy and chiropody services is essential, especially for the participants' complaints, two-thirds of which affected the axial skeleton. Good communications and close liaison with the Chief Marshal, Police and Ambulance Services are vital.**

**Keywords:** Golf, medical cover

Formal provision of medical services at 'The Open' championship has been established under the direction of Dr Paul Mackenzie since 1973. The need for such a service was identified when a player was injured at 07.30 hours one morning in 1972 and difficulty was experienced in obtaining medical aid. The previous year a spectator had died on the course. Before these two events, care was left to the voluntary services and any available medical member who happened to be on the course.

Initially the service was primarily directed towards the players and the team consisted of the Royal and Ancient Golf Club's Doctor, supported by local general practitioners and some interested hospital doctors. However, following the tremendous increase in the public's interest in golf, increasing demands from the players, and greater responsibility for provision of medical care being placed on the organizers, the medical team is presently made up of many health care professionals, including immediate care, orthopaedics, physiotherapy, chiropody, etc. Recent legislation regarding medical provision at sports venues has placed obligations on the organizers of events with more than 3000 spectators to provide medical services. The legal position regarding such services is detailed in the Taylor Report<sup>1</sup>.

Medical cover is provided for 8 days; 4 practice days and 4 tournament days.

Golf competitions provide several unusual features when compared with normal sporting arenas. A vast

area is involved, frequently causing difficulties of access for the medical services. In addition, there is a frequent need for silence to avoid disturbing competitors. These factors place considerable constraints on the provision of medical services at large golf championships.

The purpose of this report is to describe the present logistics of provision of the service and to report the types of injuries and consultations from a review of the records covering the last 10 years. A review of players' complaints over a period of 7 years is also presented.

## Logistics

Normally, a centrally located headquarters (HQ) was established with medical, physiotherapy and podiatry services. Two first aid posts (FAPs) were also established with nursing and first aid staff. One of these was usually located near the exhibitors' tented village and the other at a convenient location near the most distant point on the course. In addition, there were usually three mobile medical teams using electric vehicles. These were staffed by two trained employees, including at least one doctor. The vehicles and first aid posts were equipped with full resuscitation equipment, including ECG monitor and defibrillator. A laryngoscope and range of drugs were also provided.

The staffing varied somewhat according to need, but normally a minimum of ten medical officers and ten first aid members of staff were present at all times. In addition, communications personnel were present during play. Physiotherapists and chiropodists were also present during the tournament.

Most staff were interested in golf and all had experience of immediate care. It seems possible that future Medical Officers attending will need to have formal training in Advanced Trauma Life Support. All staff gave their time free of charge. It is estimated that if the same level of cover and equipment had been provided at commercial rates, the cost in 1990 would have been over £25 000.

## Communications

An extensive network of communications was required. This comprised land lines linking the HQ with the tournament administration and also with the FAPs. In addition, six portable two-way radio

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handsets equipped with ear pieces (for silent operation), and several radio pagers, usually of the vibrating type (again to minimize sound) were utilized. Close liaison with the Chief Marshal, Police and Ambulance Services was maintained through the main Control Centre at Medical HQ.

**Review of the records for the last 10 years**

Table 1 shows the number of people attending and the number of consultations required during the 10 years. The mean consultation rate was 0.5%, approximately 1 in 200 attending the event. This ranged from as low as 0.3% (St Andrews, 1990) to 0.9% (Birkdale, 1983). This resulted in an average of about 800 consultations per annum.

Figure 1 shows that during 1990 the number of consultations followed the daily attendance fairly accurately. This was a consistent pattern over the 10 years.

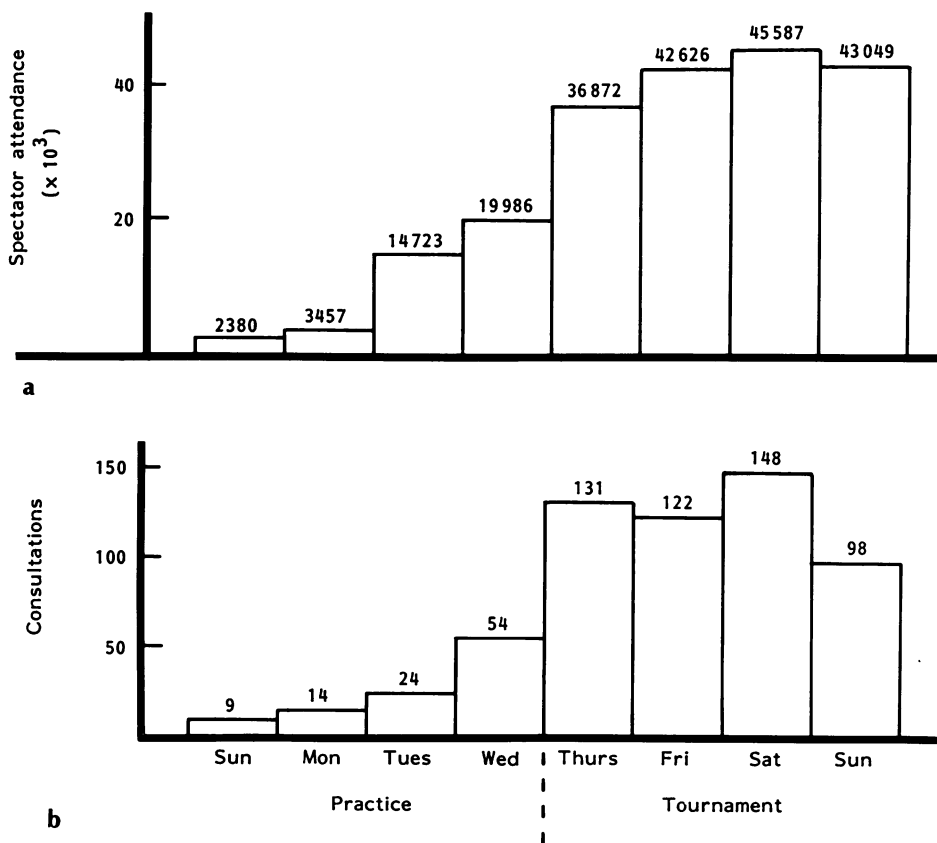
Table 2 reveals that minor wound treatment, namely suturing, dressings or bandaging was required in the largest group comprising 30% of consultations. Advice only was sufficient for a further 25% of the patients. Pharmacy prescriptions were given to 15% of people consulting and simple analgesic medication, which was dispensed locally, was required in 12%. Physiotherapy treatment was given in 7% and podiatry in 5% of the consultations. These modalities of treatment were found to be indispensable, particularly with regard to the participants' complaints.

**Table 1.** Spectator attendance and consultation

Year	Venue	Attendance	Consultations
81	Sandwich	111 529	707
82	Troon	131 502	1014
83	Birkdale	141 365	1257
84	St Andrews	193 126	836
85	Sandwich	141 619	825
86	Turnberry	134 261	782
87	Muirfield	139 189	571
88	Lytham	206 531	610
89	Troon	161 031	772
90	St Andrews	208 680	610

**Table 2.** Analysis of treatment (10 years)

Treatment	Percentage of 7984 consultations
Dressings/bandaging	30
Advice	25
Pharmacy prescriptions	15
Simple analgesia (dispensed on site)	12
Physiotherapy	7
Chiropody	5
Hospital referral	3
Other	2



**Figure 1.** Daily spectator attendance a and consultations b during 1990

Hospital referral was required in only 3% of consultations, and inevitably these comprised the most dramatic problems. The speciality to which the patients were referred is outlined in Table 3 and shows that orthopaedic referral was the most frequent (34%) closely followed by general medicine (31%).

In 1990 this included six patients with severe acute chest pain, three of whom arrested on the course. Two patients were successfully resuscitated but unfortunately one died. This individual was in a hospitality area. He weighed 130 kg and was a diabetic who smoked 100 cigarettes per day. Our records revealed only one other death during the 10 years. In a rather bizarre coincidence, two premature deliveries occurred on site during the same period. Both mothers and children survived.

### Competitors' complaints

The competitors were dealt with by the same medical team as the spectators, with most treatment being carried out by physiotherapists.

Accurate records were available for the 7-year period from 1984 to 1990 during which 88 competitors were seen. Their complaints were primarily musculoskeletal (98%) and for this discussion we have concentrated on this category. Two-thirds of problems originated in the axial skeleton. The breakdown into cervical, thoracic and lumbar regions is shown in Figure 2. The distribution of injuries of the appendicular skeleton is also indicated.

The latter injuries were almost equally divided between upper and lower limbs. Interestingly, no one presented with 'golfer's elbow', but hand and wrist complaints were frequent. Of the lower limb injuries, ankle sprains were the most common, probably reflecting rotational forces in the swing. Our figures cover the years 1984–1990 and no fractures were sustained by competitors during that period. In 1991 one player suffered an ankle fracture.

In our study, 43% of complaints were new and 57% were acute exacerbations of chronic conditions. Of the complaints relating to the axial skeleton, 62% were chronic. In the upper limb the ratio was 50% chronic, 50% acute and in the lower limbs acute complaints predominated (64%). We searched for any correlation with year or weather conditions, but no pattern emerged.

The number of days of treatment was recorded (Table 4). More than one-half required only 1 day's treatment.

Treatment modalities included ultrasound, massage, ice, manipulation, strapping, interferential,

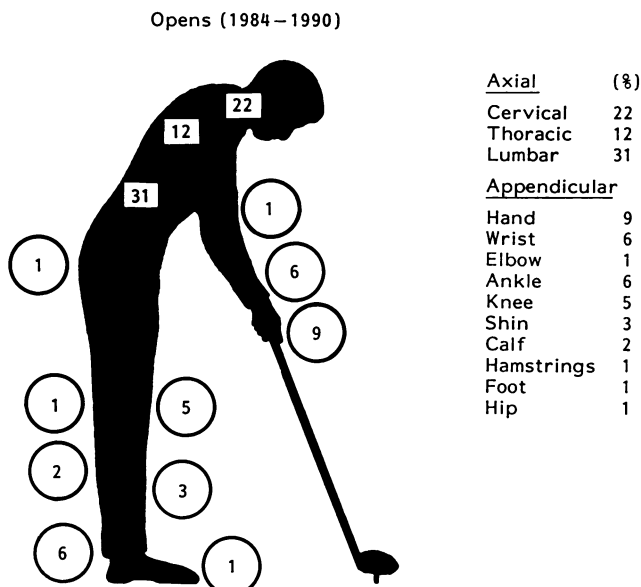


Figure 2. Anatomical distribution of participants' injuries (1984–1990)

Table 3. Hospital referral (3% of patients)

Speciality	Percentage of referrals
Orthopaedic	34
General medicine	31
General surgery	15
Ear, nose and throat	7
Other	13

Table 4. Number of days of treatment

Days attending	1	2	3	4	5+
Numbers (%)	59	24	11	2	3

magnetic field therapy, Faradism, non-steroidal anti-inflammatory drugs and, only occasionally, steroid injections.

### Acknowledgements

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### Reference

- 1 Taylor, Lord Justice. *Final Report on the Hillsborough Stadium Disaster*. HMSO, CM962, 1991.