LETTERS TO THE EDITOR

The football club doctor system

EDITOR—I read with interest the paper by Waddington et al highlighting the inadequacies of the football club doctor system in Britain. This paper confirms the suggestion that many people already knew existed. Advertisements for club doctors are rarely published in medical journals, doctors normally being appointed on a “who you know” basis. It is also particularly disappointing that, at a time when any specialty of sport and exercise medicine is being established in this country, the majority of doctors working with professional footballers have no qualifications or little experience in the specialty. However, this is not confined to football clubs and probably also applies to rugby clubs and many other sporting associations.

One aspect not mentioned in the paper is medical litigation. It is to be hoped that doctors involved with football clubs have arranged medical defence cover, because, if a situation arises in which a player’s sporting career is threatened by medical mismanagement, the doctor involved has no professionally recognised sports medicine qualification, he or she could be found guilty of medical negligence. With the amount of money involved in professional football, this could lead to dire consequences for the medical career of the practitioner involved.

From a report commissioned by the Football League on the Hillsborough tragedy, the concept of the “crowd doctor” was introduced, meaning that any doctor involved in the medical care of the crowd at a football stadium would be required to possess at least the Diploma in Immediate Medical Care.1 Before that, the situation was similar to that of the present club doctor system, and few doctors held any recognisable qualifications or training in medical emergencies and resuscitation.

A similar recommendation by sports medicine authorities is required to enhance the quality of service provided to football clubs and increase the stature of the specialty. However, it is not a one sided situation. Football clubs must realise the importance of a medical team in looking after their prime assets, the players. Advertising of jobs in medical journals, insisting on experience and qualifications, adequate remuneration, and the provision of job descriptions and contracts should all be implemented. By working together to improve the current situation, a service can be provided in which both professional football players and the medical profession can have confidence.

S BOYCE
Accident and Emergency Department
Crushouse Hospital
Kilmarnock, Scotland, UK

— I WADDINGTON
Centre for Research into Sport and Society
University of Leicester
Leicester LE1 7QH, UK
sci1@leicester.ac.uk


Sports medicine clinics on the NHS: a patient survey

EDITOR—Following the recent success of the British team at the Sydney Olympics, media and medical attention appears to be preoccupied with the health and welfare of the “elite athlete”. However, the overwhelming majority of people who participate in sport in this country are not at an elite level. In fact, the term “athlete” may not even be correct. Many people participate in sport for the physical benefits of exercise and the personal enjoyment that it brings.

When these people are acutely injured, their first port of call is their GP or local A&E department. If physiotherapy is required, there is often a lengthy waiting period. For chronic or overuse injuries, the GP may not have the time, inclination, or qualifications to deal competently with their management. The opinion of an orthopaedic consultant is desired, six months or more may elapse before an appointment. Further time will be lost in waiting for investigations and/or surgery. For the “ordinary” sportsperson, over a year may pass before they can return to their sport for an injury that may be resolved in one to two months for an “elite athlete”. Of course, if a local privately run sports medicine clinic exists, a specialist input and quicker treatment can be offered, bypassing the NHS waiting lists. But this costs money and not everyone can afford to pay for this service.

We randomly selected 40 people who attended the A&E department with a sports injury and were discharged to the care of their GP for follow up. A questionnaire was sent to each patient asking them “if a specialist sports medicine clinic was present at the hospital would you have preferred your injury to have received further treatment at this clinic rather than your local GP practice?”. A response rate of 47.5% was obtained, 88% would have preferred their injury to be reviewed at a sports medicine clinic. Various reasons were given for this preference, with many feeling that their GP was not interested or did not have the time to deal with their problem correctly. Most also felt that at a sports medicine clinic they would be treated by specialists in their field similar to that of any other hospital speciality outpatient clinic. Although this survey targeted a possibly biased group, these are the majority of people with sporting injuries that we should be aiming to treat. The introduction of NHS based sports medicine clinics may be a few years away but the training of doctors to a specialist standard through regulated training schemes must start now.

S BOYCE
M A QUIGLEY
176 Troon Avenue, Greenhills
East Kilbride G75 8TJ, Scotland, UK

New Zealand Olympic experience—Sydney 2000

EDITOR—New Zealand’s Olympic medical team of four doctors, seven physiotherapists, one chiropractor, one massage therapist, and a sports psychologist provided medical care for a team of 150 athletes and 76 officials at the Sydney Olympic Games. During the month in Sydney, we provided consultations and 1403 physiotherapy and chiropractic treatments, plus numerous massages.

All but one athlete was able to compete in their chosen event. For the athletes who required laboratory investigation or operative imaging, a comprehensive service was provided at the polyclinic within the Olympic Village. Special mention should be made of the superb organ imaging service organised by Dr Jock Anderson. Readers of the Journal may be interested to know of the rapid response to CT guided nerve root sleeve injections of corticosteroid. Three of our athletes with lumbar nerve root complaints had these injections, and all were able to compete some 48 hours after injection. This epitomises the high standard of diagnostic and therapeutic intervention that was possible, and the impressive clinical results that could be achieved.

In summary, the Olympics represent the pinnacle of sporting excellence and I am pleased to report that the medical facilities available to athletes in Sydney were of the same high standard as the achievements of the competitors.

C MILNE
Health Team Leader (Chief Medical Officer)
New Zealand Olympic Team
Sydney 2000 Olympic Games


www.bjspm.com
Reassessing the need for sport diving medicals

EDITOR,—Dr Stephen Glen and his coauthors conclude from an analysis of medical records held by the Scottish Sub-Aqua Club (SSAC) that routine medical examination of sport divers can safely be replaced by a system of self declaration, with a questionnaire designed to indicate whether referral to a doctor with experience of diving medicine is necessary. The authors’ inclusion should be regarded as preliminary, however, because the data were not disaggregated sufficiently to reveal the addition of screening value of a routine medical examination beyond that of an initial questionnaire. In addition, there are inherent statistical biases in the SSAC data that have not been addressed.

The risks associated with discontinuing routine examinations could have been investigated by quantifying the number of cases in which disqualifying conditions were found in medical examination but not declared in the prior questionnaire. However, the authors’ listing of abnormalities recorded at examination apparently includes those due to conditions declared in the questionnaire. Similarly, the listing of formal referrals to approved medical referees does not indicate how many were initiated by a questionnaire response and how many as a result of an examination ending only. Crucially, the cases that were ultimately failed were not classified by type of disqualifying condition or by stage at which the condition was first detected. The prevalence of disqualifying conditions that subjects were unaware of, or otherwise did not declare, before the examination is therefore obscured.

Under the SSAC system during the study period, general practitioners could certify candidates with certain conditions as “unfit to dive”, without referring them to a medical referee. As a certificate of fitness to dive was a prerequisite of membership of the SSAC, these subjects would not join the organisation and details of their medical examination would be unlikely to enter the medical database. The discriminatory value of medical examinations may therefore have been underestimated. It may have been rare that subjects were failed outright without a medical referee being consulted (when their details were required for a medical referee being consulted). As a certificate of fitness to dive was a prerequisite of membership of the SSAC, these subjects would not join the organisation and details of their medical examination would be unlikely to enter the medical database. The discriminatory value of medical examinations may therefore have been underestimated. It may have been rare that subjects were failed outright without a medical referee being consulted (when their details were required for a medical referee being consulted).

The data set is also biased by the inclusion of “repeat” medicals (routine periodic re-examination of divers), which comprised nearly 30% of the records analysed. This probably involved some degree of pseudo-replication, but even if there was only one record for each individual, one may expect a lower prevalence of disqualifying conditions among a group who had previously been certified “fit” among first time applicants. The prevalence of disqualifying conditions among new applicants therefore needs to be estimated separately.

The authors may be correct that routine medical examinations for sport divers are unnecessary, but if policy on such an important safety issue is to be changed, the justification for doing so should be clearly demonstrated and qualified according to the limitations of the available data.

P SMITH
School of Ocean and Earth Science
University of Southampton
Southampton SO14 3ZH, UK
l.d.smith@soton.ac.uk


Authors’ reply

The main conclusions of our paper were that no significant abnormalities were found on clinical examination of divers in the Scottish Sub-Aqua Club, and that the questionnaire was the important part of the screening assessment of divers. This remains the case regardless of how the information is analysed.

In response to the questions raised by Philip Smith, only 391 divers responded “No” to all questions, and none had abnormalities on clinical examination. All of the referrals to medical referees were prompted by positive questionnaire responses, and the divers were assessed by doctors with diving medicine experience. The interim step of clinical examination by a doctor without such experience did not affect the outcome.

Divers start training with the SSAC by undergoing basic snorkel and rescue training (as with most diving organisations) and may progress to scuba training after a medical examination. They entered the SSAC system during the snorkel training, however, and in our experience GP did not fail divers outright before contacting SSAC headquarters or a medical referee. It is not possible to confirm that all divers were referred in this way, but it is reassuring that an analysis of the medical forms after the introduction of a self certifying system has confirmed an increase in the number of divers failing on the basis of questionnaire responses alone.

It was necessary to include the repeat medicals in the analysis because the introduction of a new system must be as effective in the existing divers as it is in the new entrants. New medical conditions may develop in the period between medicals, which can be up to five years. Removing the repeat medicals from the analysis does not affect the final conclusion, as it confirms that the questionnaire is the most important part of the screening process.

A new questionnaire system was introduced in March 2000 and analysis of the short term response has shown a slight increase in the number of divers failing their medical assessment. A complete report will be submitted for publication shortly. In addition, all forms submitted by divers are now reviewed by diving doctors, and assessment is only performed by doctors with diving medicine experience. This helps to ensure a consistent application of the medical standards recommended by the UK Sport Diving Medical Committee. There has been no change in the incident pattern although it is too early to expect major differences to become apparent.

It is worth noting that the role of routine medical examinations has been questioned elsewhere, and that the number of diving accidents related to medical conditions did not significantly change when compulsory medicals were introduced in Australia and New Zealand. The additional problem in assessing fitness to dive has been the fact that divers have been assessed by doctors without diving medicine experience, and the introduction of the new system has allowed this to be rectified. Divers should not be falsely reassured by the value of a screening medical examination performed by a doctor without diving medicine experience.

S GLEN
Department of Cardiology
Edinburgh Royal Infirmary
Lauriston Place, Edinburgh EH3 9YW, Scotland, UK
SKGlen@sheriefree.co.uk

J DOUGLAS
Toowee Medical Centre
High Street, Fort William, Scotland, UK


Management of diabetes at high altitude

EDITOR,—In response to the leader of Moore et al we would like to report the results obtained in eight type 1 diabetic mountaineers who ascended the Aconcagua (6950 m) without any significant medical problems. The only climber unable to make the summit, because of a problem not related to diabetes, reached 6700 m.

None of the climbers took any drugs to prevent acute mountain sickness (AMS) because of the possible risks. Instead, they acclimatised gradually.

Above 5000 m some of the diabetic climbers experienced hypoglycaemia after dinner with nocturnal hyperglycaemia probably because of delayed absorption of insulin. All climbers reached the summit at altitude and rapid absorption of the Lispro Insulin used by most of the group. We recommended delaying the administration of insulin until the end of dinner.

There were no problems with glucometers. The devices were protected with home made bags and carried next to the skin.

As expected, all members of the team suffered bouts of hypoglycaemia and hyperglycaemia but were managed without complications. Glycaemia was monitored on average seven times a day. The expedition doctor had to intervene in only one case of medium postprandial hyperglycaemia at 5000 m.

In a previous investigation of type 1 diabetic climbers, 15 out of 24 of the climbers reached altitudes above 5000 m (three above 7000 m). None reported major complications at altitude nor taking any drugs to prevent AMS. In climbs under 3000 m, hyperglycaemia caused by dehydration (two cases) or extensive sunburn (one case) were reported; all were self managed and resolved before the climbers reached hospital. One climber had previously measured his glycaemia at a height of 8200 m on Mount Everest. He tested the glucometer in the hypobaric chamber at 5000 m without any significant differences from sea level.

Optimal management of the diabetes, together with progressive acclimatisation, was the key to success. All the team were good at self monitoring under any conditions and had the skill to calculate insulin and carbohydrates and the ability to handle early hyperglycaemia and hypoglycaemia.

Climbing mountains at high altitude is a risky sport. Diabetic climbers should not be deterred from going to altitude provided that they are aware of the increased risks and the importance of frequent self monitoring and gradual acclimatisation to avoid AMS.

J ADIETLLA
C LEAL
A RICART
Institut d'Estudis de Medicina de Muntanya
Barcelona, Spain
leal@ic.cicenet.es
Sports doctors' resuscitation skills under examination—additional facts

EDITOR,—Further to the recent article Sports doctors' resuscitation skills under examination—do they take it seriously?1 there are some additional facts that support the argument.

The University of Bath diploma course in sports medicine for doctors includes teaching material on life support and spinal management. The tutor marked assignments that indicate the completion of the primary care module require description of the application of these skills to a defined situation. The residential component of the course, designed to rehearse practical skills, includes three hours of first aid revision and training conducted by one or more of the article authors.

The failure rate in the examination of proficiency in basic life support and spinal management of a potential spinal injury is in marked contrast with that of the other components of the course where a reasonable pass rate is obtained.

It does therefore seem possible that the reported failure rate is not due to the inadequacy of the teaching material, rather a perception by doctors that resuscitation and life support is not relevant to their work. The article reports other studies that highlight the poor standards of doctors in these skills. It cannot be assumed that doctors entering a sports medicine teaching course have previously acquired proficiency in the skills of resuscitation and the management of potential spinal injury.

It does suggest that there is an urgent need to educate doctors in their responsibility, not only to the community as a whole but also to the at higher risk sporting population, to be proficient in life saving skills. The widely reported court case in which the boxer Michael Watson successfully claimed damages for personal injuries sustained in a professional boxing contest—he sustained a brain haemorrhage and permanent injury—drew the comment from the judge that he had heard nothing to suggest that the doctors at the ringside were chosen because of their specialised knowledge.2

It seems necessary for an annual practical appraisal of the lifesaving skills of doctors involved in the everyday care of patients may not be inappropriate.

M B BOTTOMLEY
Tutor and former Director of Studies
Sports Medicine for Doctors
University of Bath
Bath, UK

The future for the field of sports medicine

EDITOR,—Can I begin by expressing my appreciation for the introductory free access to the journal since its launch on the web earlier this year.

This year I have undertaken an intercalated degree in clinical medicine which has been offered by the Department of Medicine and Therapeutics at Glasgow University for the past four years. Over 60 of my fellow students opted to do the same. We each, however, opted to do a specialist module in addition to a common core course. The options include cardiovascular studies, clinical neuroscience, and cancer studies. I chose to do sports medicine, largely because of my own interest and participation in sport. Indeed participation in sport was a common factor among the 10 students opting for this module.

Admittedly many of us felt that this, compared with some of the other modules, would not be a particularly taxing option. Our reputation as "slackers" among the rest of the year group was evident. As far as they were concerned we appeared to be featured in fun things while they grappled with the serious issues at the cutting edge of medical research! However, although I have thoroughly enjoyed the lectures, this was by no means the easy option, and I agree wholeheartedly with Paul McCrorry that it is about time attitudes changed.

Who says there are no serious issues in this field? Consider the dilemma of the physician who has been plead with to give a pain killing injection to a young player, with the risk of serious damage, because an international scout will be at this match and this may be his only chance to make an impression. Consider also the responsibility, swift judgment, and strength of character required when faced with the head injured player who knows he will be out for a whole season if he comes off, and then of course there's his coach...

The elite athlete has emerged as someone who has specialists to advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.

What has been most evident throughout is the requirement for more well conducted research and clinical guidelines based in this field. We are a generation of medical students for whom the term evidence based medicine (EBMM) is used, but we are not clear about the role of evidence here. Our lectures have explored this need specialists who can advise in each of these areas, but to enable them to do so we need to provide them with the necessary evidence base.
The text fulfils its role as a quick reference guide for junior staff or students; however, it is a little overambitious in its diversity and is non-specific in relation to relevant physiotherapy practice.

**Analysis**

<table>
<thead>
<tr>
<th></th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>14/20</td>
</tr>
<tr>
<td>Comprehensiveness</td>
<td>15/20</td>
</tr>
<tr>
<td>Readability</td>
<td>13/20</td>
</tr>
<tr>
<td>Relevance</td>
<td>10/20</td>
</tr>
<tr>
<td>Evidence basis</td>
<td>8/20</td>
</tr>
<tr>
<td>Total</td>
<td>60/100</td>
</tr>
</tbody>
</table>

**Further details:** Michele E Brown, IOC World Congress Secretariat, Salt Lake Organizing Committee for the 2002 Olympic Games, 299 South Main Street, Suite 1300, PO Box 45002, Salt Lake City, UT 84111, USA. Tel: +801 212 3472; Fax: +801 212 2440; email: ioc.worldcongress@saltlake2002.com

Web site: www.iocworldcongress.org

---

**Sixth IOC World Congress on Sport Sciences**

16–23 September, 2001; Salt Lake City, USA.

Further details: Michele E Brown, IOC World Congress Secretariat, Salt Lake Organizing Committee for the 2002 Olympic Games, 299 South Main Street, Suite 1300, PO Box 45002, Salt Lake City, UT 84111, USA. Tel: +801 212 3472; Fax: +801 212 2440; email: ioc.worldcongress@saltlake2002.com

Web site: www.iocworldcongress.org

---

**20th BRUCOSPORT Meeting**

19–20 October, 2001; Congress Centre, Brugge, Belgium.

Further details: Secretariaat Sportgeneeskundige Dagen AZ Sint-Jan AV, Rudershove 10, B-8000 Brugge. Carine De Bruycker, Tel: +32 50 45 22 30; Fax: +32 50 45 22 31.

Web site: http://user.online.be/brucosport

---

**Australian Conference of Science and Medicine in Sport**

23–27 October 2001; Burswood International Resort Casino, Perth, Western Australia.

The theme for the 2001 Australian conference is “2001 A Sports Medicine Odyssey: Challenges, Controversies and Change” and will focus on what the future holds for sports medicine, especially following the Sydney Olympic Games.

---

**British Association of Sport and Exercise Medicine: 2001 Congress**


Further details: Mrs Sue Roberts, BASEM Company Office, 12 Greenside Avenue, Frodsham, Cheshire WA6 7SA; Tel/Fax: +44 (0)1928 732 961; email: basemoffice@compuserve.com

---

**New Zealand Sports Medicine Conference**

1–4 November 2001; Sky City, Auckland. Keynote speakers are Ken Crichton, Craig Purdham, and Louise Bourke.

Further details: Conference Secretariat, PO Box 6396, Dunedin, New Zealand; Tel: +64 3 477 7887; Fax: +64 3 477 7862; email: smznzat@xtra.co.nz

---

**Concussion in Sport**

2–3 November 2001; Vienna, Austria. International symposium organized by the International Ice Hockey Federation (IIHF) in cooperation with the International Olympic Committee (IOC) and the Federation Internationale de Football Association Medical Committee and the Federation Internationale de Football Association Medical Assessment and Research Center (F-MARC).

The conference will present scientific information on the epidemiology, on-site management, treatment, grading, and prevention of concussion in sport.

Further details: Darlene Scheurich, International Ice Hockey Federation (IIHF), Parkring 11, 8002 Zurich, Switzerland. Tel: +41 1 289 8614; Fax: +41 1 2898629; email: scheurich@iihf.com

---

**5th Annual Football Association’s Coaching Association Conference**

8 November 2001; Liverpool, UK. Supported by the Football Association and the World Commission of Science and Sports.

Further details: Dr Mark Williams, Research Institute for Sport and Exercise Sciences, Liverpool John Moores University, Henry Cotton Campus, 15–21 Webster Street, Liverpool, L3 2BT, UK. email: m.williams@livjm.ac.uk

---

**II European Federation Sports Medicine Congress**

14–17 November 2001; Oviedo, Spain. Further details: Tel: +34 902 103 873; Fax: +34 902 120 880; email: info@eufc3.com.

---

**Beyond the Horn: Australian Pain Society**

24–27 March 2002; Sydney, Australia. Exploring the journey of pain between the periphery and the brain, from basic clinical practice.

Further details: DC Conferences; Tel: +61 (0)2 9439 6744; e-mail: mail@dcconferences.com.au.

---

**NOTES AND NEWS**

**Online advice for sportswomen**

Sports Medicine Australia’s fact sheets containing health information for sportswomen can now be accessed online. Covering topics such as premenstrual syndrome, exercise and pregnancy, and osteoporosis, the fact sheets can now be downloaded free of charge from http://www.sma.org.au/sma/women.html

---

**Australia recognises sports physicians**

The Australian government’s Health Insurance Commission (HIC) has granted sports physicians a Fellowship of the Australian College of Sports Physicians access to their own Medicare item numbers. This recognises sports physicians as a separate entity from general practitioners and restores their rebate to the equivalent of a vocationally trained GP. This is the first time the HIC has recognised a “special group” and is a significant step forward in the quest for full specialist recognition. This process is about to resume now that the Australian Medical Council has established a new process for recognition of new specialties.

---

http://bjsm.bmj.com/ on June 19, 2017 - Published by group.bmj.com
Sports medicine clinics on the NHS: a patient survey

S H Boyce and M A Quigley

doi: 10.1136/bjsm.35.4.281-a

Updated information and services can be found at:
http://bjsm.bmj.com/content/35/4/281.2

These include:

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Topic Collections
Articles on similar topics can be found in the following collections
- Injury (957)
- Physiotherapy (188)
- Physiotherapy (245)
- Trauma (845)

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/