

The management of facial injuries in rugby union

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Background: There are as yet no guidelines in rugby union for the management of facial lacerations which account for one-third of total injuries sustained by players.

Method: We devised a questionnaire to establish the current standards in rugby union clubs in England. The questionnaire covered such issues as inadequate wound cleansing, inappropriate suture material, the use of sterile suture equipment, and advice required for suture removal.

Results: We recommend that a dedicated medical room should be available in all clubs, the doctor should always wear gloves, and local anaesthetic and sterile suture packs and instruments should be provided.

Guidelines have not yet been defined in rugby union for the management of facial lacerations though they have been for other injuries such as concussion. Facial lacerations account for one-third of total injuries sustained by players.¹ Appropriate initial management of wounds is important, since it has a role in determining the degree of revision required later.² We have experienced a number of facial injuries treated at rugby union grounds in an inadequate manner with poor wound cleansing, inappropriate suture material, and advice required for suture removal. These issues have been addressed in this questionnaire along with the use of sterile suture equipment.

METHODS

A postal questionnaire was distributed to the medical officers of 64 rugby union clubs at the end of the 2001/02 season. The questions were deliberately open ended to allow free self-explanation of current practice.

RESULTS

A total of 39 of the 68 questionnaires were returned complete (57%). The questions and their answers are given in figs 1–10 and tables 1–11.

DISCUSSION

The most frequently injured site during a match is the head and neck region.³ The Rugby Football Union has clearly defined guidelines for the management of concussion; there are, however, no such guidelines for the management of facial lacerations. We have attempted to establish the current standards in rugby union clubs in England.

Those administering medical assistance come from all medical specialities with a predominance of general practitioners. All premiership doctors receive remuneration, but the majority of posts in our series are honorary. The vast majority of rugby clubs have a dedicated medical room, and one would hope this reduces infection rates.

It is surprising that two clinicians do not use gloves, thereby risking blood-borne transmission. Local anaesthetic is offered in 32 cases, and of those, used regularly in 25. Wounds to which local anaesthetic has been applied are not only easier to suture, but are more comfortable for the patient and allow more thorough cleansing. The administration of local anaesthetic takes very little time compared with suturing and should not be withheld on the grounds of a more rapid return to the playing field. The vasoconstrictor effect exhibited by local anaesthetics containing adrenaline is

useful in assisting haemostasis and may help in accurate apposition of wound edges due to better visibility as well as allowing a speedier return to the field of play under the

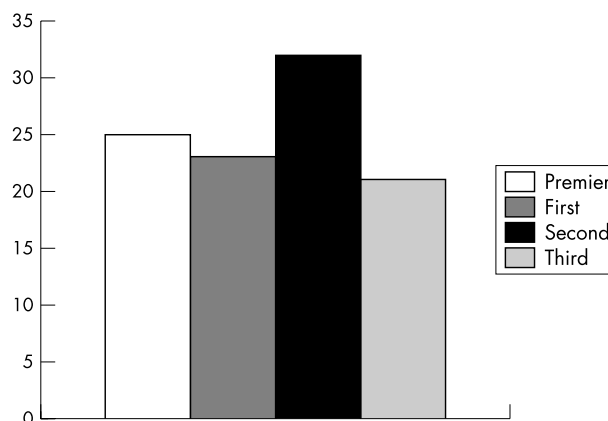


Figure 1 What division is your club in? (percentage representative of each division)

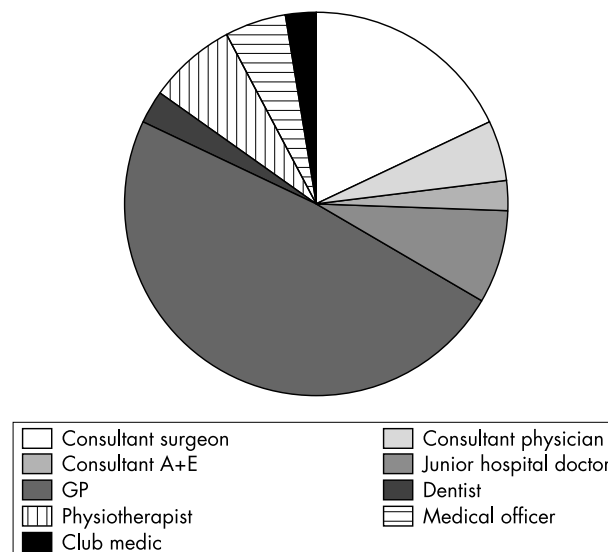


Figure 2 What is your current full-time post?

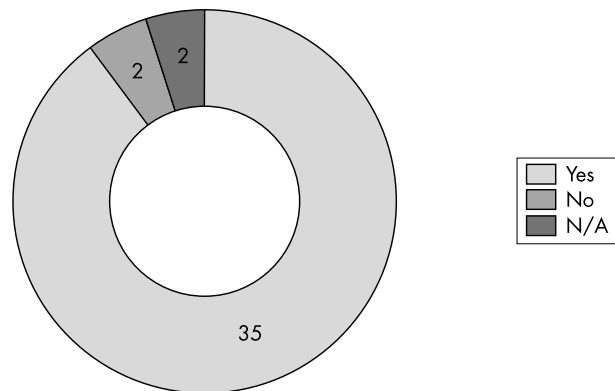


Figure 3 Do you suture facial wounds at your club?

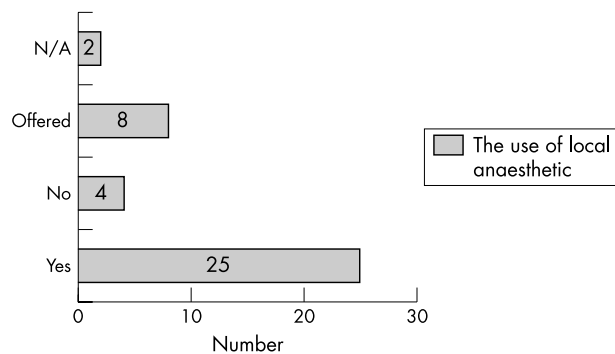


Figure 4 Do you use a local anaesthetic?

“blood rule”. Wound irrigation is common and should be encouraged to reduce contamination of the wound.

Sterile suture packs are used in all cases, were applicable, and are sterilised outside the club in a local facility. The use of non-sterile interments should be condemned, as at best it invites wound infection and at worst carries the risk of blood-borne disease transmission.

The use of disposable suture packs is common in the Premiership, but has obvious cost implications. The quality of instruments provided in disposable packs may not be as high as re-useable instruments and may make delicate suturing with fine sutures more difficult.

Monofilament sutures were the most common, but it is surprising to see silk still being used in six clubs. The monofilament suture has an inert relationship with the skin, and is usually associated with minimal extra-iatrogenic scarring. Silk, on the other hand, is a braided suture and is well recognised as causing local skin reactions. In addition the braided nature of the material allows more extensive bacterial colonization and a route of ingress deep into the wound. Generally, smaller sutures, with 5/0 and 6/0 as suitable sizes, should be applied to facial lacerations. Small size monofilament sutures are generally recommended for suturing of facial lacerations.⁴ SteriStrips are commonplace for the more superficial wounds and were administered by all the non-medical staff. Topically applied glue was not a particularly popular technique, only being used by nine of the 37 personnel that expressed a preference, and of these two were non-medically qualified. There is some evidence to suggest that long-term outcome using glue is as good in uncomplicated facial lacerations but immediate and early wound strength is likely to be less than a similar, sutured laceration.⁵

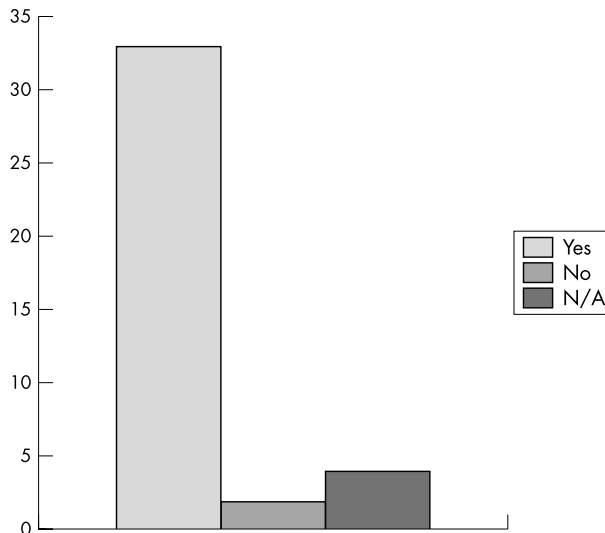


Figure 5 Do you irrigate the wounds with sterile saline/water?

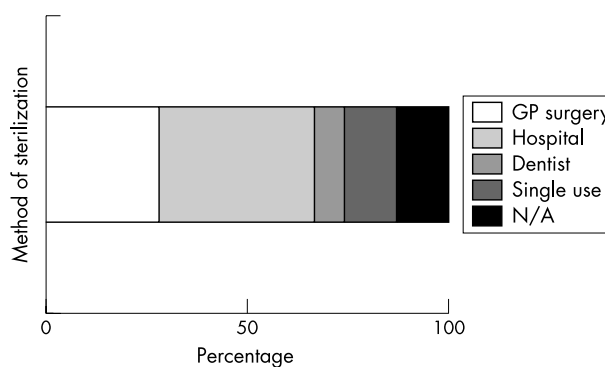


Figure 6 If you use sterile suture packs, who sterilises them?

A total of 20 of the 39 clubs paid for the suturing equipment, while the others obtained it from local health trusts. These patients would have to be treated in an accident and emergency department if they were not treated in the club, and therefore the cost saving to the hospital can be justified.

Having sutured a facial laceration the majority of doctors allow the player to return to the field, which is reasonable

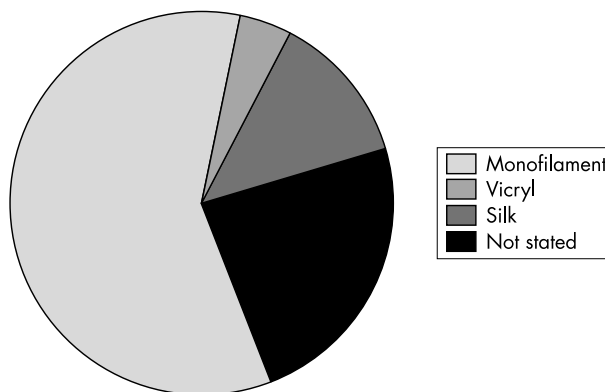


Figure 7 What type of suture do you use on facial skin (not mucosa)?

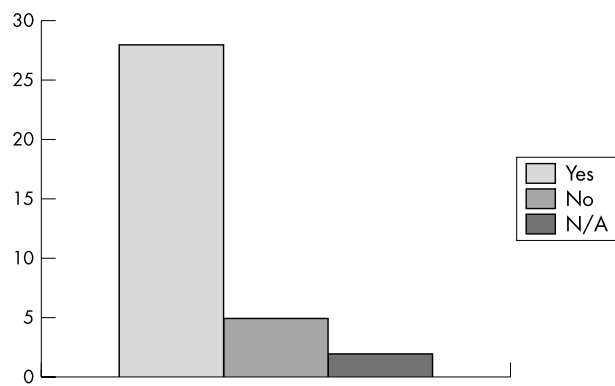


Figure 8 Do you allow immediate return to play?

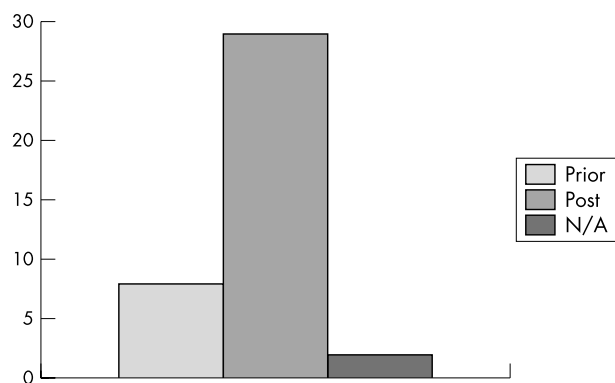


Figure 9 Do you advise suture removal prior to game/training if ready for removal or wait until after the game?

provided the wound is covered and the player understands the risks of infection and wound dehiscence. If the wound becomes further contaminated during play it should be treated by further debridement and resuturing at the end of the game. Occlusive dressings may be beneficial in early wound healing but have not been shown to have a significant effect on the long-term outcome.⁶ Once the laceration has healed and the sutures are ready to be removed, the majority of doctors prefer to leave the sutures in situ. It is our personal preference to remove the sutures prior to the game, and in the unlikely event of wound dehiscence a linear wound will be created rather than one with more ragged edges.

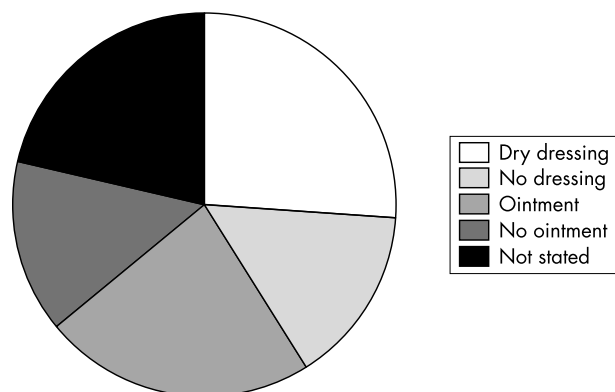


Figure 10 What dressings/ointments do you put over the wound?

Table 1 Are you an honorary doctor or do you receive remuneration?

Honorary	27
Remuneration	12

Table 2 Do you have a dedicated medical room for this purpose?

Yes	34
No	3
Not applicable	2

Table 3 Do you use gloves?

Yes	35
No	2
Not applicable	2

Table 4 Do you use sterile suture packs?

Yes	33
No	0
Not applicable	4

Table 5 Size of suture and number of people using this size

Size	Number of people using size
3/0	1
4/0	4
5/0	7
6/0	8

Following removal of sutures the immature wound can be supported by the application of steristrips.

A variety of dry dressings and ointments were used with no particular preference. Use of topical antibiotic ointments such as chloromycetin or polymyxin has the advantage of providing a moist environment for wound healing but carries a small risk of local or systemic sensitivity. Facial wounds particularly around the eye are often difficult to occlude, but every effort should be made so to do. Lacerations involving the eyelid itself require specialist attention.

Table 6 Do you use steristrips?

Yes	29
No	9
Not applicable	1

Table 7 Do you use glue on the face?

Yes	9
No	28
Not applicable	2

Table 8 Does the club pay for the equipment or is it borrowed?

It pays	20
It does not pay	19

Table 9 Have you ever been shown suture techniques?

Yes	36
No	3

Table 10 When was it?

Regular updates	14
A long time ago	20
Not applicable	5

Table 11 Would you consider attending a short techniques class?

Yes	25
No	14

Take home message

A dedicated medical room should be available, the doctor should always wear gloves, and local anaesthetic and sterile suture packs and instruments should be provided. Small monofilament sutures should be used, while complex facial lacerations need specialist management. Rugby players should be encouraged to use protective gear and a suture techniques course may be of benefit to some doctors.

Only three of the doctors questioned had not been taught suture techniques, and of those that had, the majority felt it was a long time ago and they would benefit from attending a short techniques class.⁷

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