Letters to the Editor

Helmets and Face Masks

I am glad to see the NATA take an active role in emergency care of the athlete. Your recent article by Putman, "Alternative methods for football face mask removal" (*JAT*, 1992; 27: 170-172) was such an example.

I agree with Putman on the importance of the removal of the face mask as quickly and safely as possible. With all the different face mask attachment variations, a universal tool must be found. In a rebuttal to this article, Paul K. Schiess, MS, ATC, "Letters to the Editor" (*JAT*, 1992; 27: 198), might have found such a tool. The Anvil Pruner is definitely worth looking into.

The only problem I have with the article and the rebuttals is that they are all concerned with the "30-seconds rule." All the steps and procedures discussed in the articles are appropriate for a breathing patient with a pulse.

Emergency medical technicians are taught and trained to remove the helmet in all situations. Removing the helmet is dangerous when there is no airway management problem and when the face mask can be removed. I have convinced the state instructors to teach to remove the face mask, instead of the helmet.

The "30-seconds rule" should never be a factor, because if there is an airway management problem the helmet and shoulder pads should be removed as quickly and as safely as possible. When it comes right down to it the most important thing to remember is, No Airway, No Patient!

Someday, I would like to see the NATA teach EMTs and paramedics emergency care of athletes, because after all, athletic trainers have a greater knowledge of working with the equipment than the emergency personnel or physicians.

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I was pleased to read Putnam's article on face mask removal in football, "Alternative methods for football face mask removal" (*JAT*, 1992; 27: 170-172) and the various letters written in response. The

reason that this topic is of interest to me is that a technique exists which I believe will help athletic trainers manage respiratory arrest without removing the face mask.

For several years, the American Red Cross has published standards for basic life support which include the use of a barrier device in the delivery of artificial respiration or cardiopulmonary resuscitation. Beginning July 1, 1992, the Occupational Safety and Health Administration (OSHA) mandated the use of barrier devices to protect employees from transmission of bloodborne pathogens during artificial respiration and CPR. In view of these standards, we at Hope College have instituted the use of a pocket mask with a one-way valve (Laerdal Medical, 1 Labriola Court, Armonk, NY 10504) for all athletes who require basic life support. When used on a football player in respiratory or cardiac arrest, it is possible to slip the pocket mask under the face mask, attach the oneway valve through the bars of the face mask, and initiate basic life support using the modified jaw thrust to open the airway without removing the face mask.

I believe this technique is a valuable contribution to the discussion on this issue for several reasons. First, it allows the athletic trainer to begin basic life support with a minimum of delay. It should take no more than 5 to 10 seconds to place and assemble the pocket mask and begin basic life support. Second, by eliminating the need to remove the face mask, the integrity of the cervical spine can be maintained more completely. Because the jaw thrust will be the airway maneuver of choice for these cases, the only cervical spine movement that should take place are those extraneous, unwanted movements that occur when the jaw is thrust forward. When the plastic clips that hold the face mask in place are removed, by any of a variety of methods, the likelihood of some cervical spine movement is increased. Finally, since the standard for basic life support includes the use of a pocket mask or other barrier device anyway, why remove the face mask if the pocket mask renders this unnecessary?

I intend to study this problem empirically in 1993 with the assistance of a bioengineer colleague and a Hope College

student athletic trainer. We intend to study cervical spine motion during face mask removal using a variety of techniques. We will compare the cervical spine motion produced during these face mask removal techniques against the pocket mask-no face mask removal technique. We plan to used a highly sensitive infrared video device to measure cervical spine motion. If readers have any suggestions for this study, which is still in the formative stages, I would appreciate comments or recommendations. Until then, I urge other athletic trainers to experiment informally with this technique. I believe it offers significant advantages to their athletes.

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I would like to point out that there is an alternative to face mask removal in order to gain access to the airway.

The A.A.O.S., in their publication *Emergency Care and Transportation of the Sick and Injured*, endorses removal of motorcycle helmets in accident victims via the transfer of in-line traction. The same procedure can be used for the removal of a football helmet.

During each week of the season, beginning with 2-day practices, every helmet should be inspected for corroded and/or rusted face mask attachment hardware. Any defective hardware should be replaced. At the same time, the clips and screws should be treated with a "shot" of WD-40 using the straw "hollow like attachment" to the aerosol can. At Cookeville High School, this is done every Thursday immediately following that day's light practice.

We also must remember that should CPR be required, the shoulder pads will have to be spread apart or completely removed after the jersey is cut. If shoulder pad removal is mandated, the helmet most likely will have to be removed first.

ATCs should be familiar with all aspects of protective equipment removal in an emergency situation. Perhaps the NATA