REVMEDX™

CASE STUDIES

Organization
Woodburn Ambulance Service Inc
Woodburn, Oregon

Profile
Exclusive 911 ambulance provider serving over 450 square miles of Marion County, Oregon

Product
AIRWRAP® and AIRWRAP® XL

Protocol Indications
Application of direct pressure for external hemorrhage control with or without primary wound dressing

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Need

At Woodburn Ambulance, we frequently transfer patients with ruptured dialysis fistulas. Given the geography of our service area, our transports can also be fairly lengthy. After a single 24-hour shift with two ruptured fistulas, one in which the patient's 35-minute transport was marked by severe pain due to tourniquet pressure, we identified the need for a more comprehensive bleeding control solution. Specifically, we needed a better tool for bleeding injuries that required more than a simple dressing and less than a tourniquet.

Solution: AIRWRAP®

AIRWRAP® is an elasticized bandage with a small inlaid bladder, inflated by a standard bulb to place direct pressure on a wound. AIRWRAP was designed by and for combat medics, so there are added features that make it easy to use in the field. There are small Velcro tabs set at regular intervals to stop the bandage from unraveling its full length when dropped. Also, the bladder has a luer-lock that can be inflated with a syringe (if the supplied inflation bulb is misplaced) or with a bolus of saline (if there is concern about significant altitude changes during air transport). The team at RevMedx are supportive of civilian E.M.S. and have been very proactive in helping us incorporate the AIRWRAP into our system.

"This innovation offers another option for bleeding control, and creates a greater degree of flexibility in patient treatment and improved patient outcomes."

Illustrative Uses:

One of the first occasions for use was on a ruptured dialysis fistula, which was spurting blood and unable to be controlled by manual direct pressure. An AIRWRAP was placed directly over the fistula and inflated, stopping the bleeding almost instantly and requiring no further dressing during transport.

In another instance, it was used as a form of localized tourniquet on a fistula where there was concern about direct pressure causing a possible compromise. The AIRWRAP was applied to the arm above the rupture and inflated until the bleeding was controlled without compromise to the fistula (which would have occurred with a traditional tourniquet).

Another call involved a patient whose arm had been pulled into a chop saw. The bleeding was venous, not arterial, and the applied tourniquet was not stopping the bleeding and was causing the patient intense pain. An AIRWRAP was applied and the tourniquet removed. The patient's pain reduced instantly and he was transported for nearly forty minutes to the nearest appropriate hospital. During the transport, the AIRWRAP controlled the bleeding to the degree that when the dressing was removed at the ER, the bottom half was blood-stained and the top was still clean and white.

Recently, the AIRWRAP XL was used to immediately stop bleeding from an abdominal injury. The paramedic was hesitant to apply the manual pressure necessary to stop blood flow because of concerns about patient pain. The AIRWRAP XL was wrapped around the torso and inflated until blood flow stopped without undue patient discomfort.

Summary:

Our agency has been using the AIRWRAP and AIRWRAP XL for 3 years. We routinely use it in cases where direct, focal pressure needs to be applied to a wound, yet there are concerns for patient comfort or tissue compromise. This innovation offers another option for bleeding control, and creates a greater degree of flexibility in patient treatment and improved patient outcomes. When they first appeared in our units they were an unknown product; now crews en route to an incident involving serious bleeding are thinking of using the AIRWRAP well before they arrive on scene. It is, in my opinion, well worth the time of any agency to investigate adding the AIRWRAP to the inventory carried on their ambulances and apparatus.

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