The Special Operations Medical Association's Official Journal

JOURNAL of SPECIAL OPERATIONS MEDICINE®



THE JOURNAL FOR OPERATIONAL MEDICINE AND TACTICAL CASUALTY CARE



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Dedicated to the Indomitable Spirit and Sacrifices of the SOF Medic

TCCC UPDATES

Dr Frank Butler

novel hemostatic product called XStat[™] has recently been developed by RevMedx in Wilson-ville, Oregon. The XStat[™] system consists of approximately 92 flat, circular, compressed minisponges that are coated with the hemostatic substance chitosan and packaged in a 60mL syringe applicator. The unexpanded minisponges are 9mm in diameter and 4.5mm in height. When injected into a wound cavity, the sponges expand when they come into contact with blood, filling the wound cavity and exerting pressure on bleeding vessels from within the wound cavity.

A proposed change to the TCCC Guidelines to add XStat as a hemostatic adjunct was recently reviewed by the TCCC Working Group and approved by the required two-thirds or more of the voting members of the CoTCCC. XStat may be particularly useful in junctional wounds in the groin or axilla in which the bleeding comes from a wound with a deep, narrow wound track.

The position paper for this change to the TCCC Guidelines has been finalized and approved for publication by the US Army Institute of Surgical Research and appears in this issue. Be sure to read "Management of External Hemorrhage in Tactical Combat Casualty Care: The Adjunctive Use of XStat™ Compressed Hemostatic Sponges: TCCC Guidelines: Change 15-03" on page 19.

The training slides to support this change to the TCCC Guidelines were developed by Dr Stephen Giebner, the CoTCCC Developmental Editor and are attached. These XStat slides will be incorporated into the 2016 version of the TCCC for Medical Personnel curriculum, which will come out this summer. If there are any proposed changes to TCCC curriculum materials, please forward these to Dr Giebner (sdgiebner@msn.com) as soon as possible.

THANKS to SGM Kyle Sims, SGM F Bowling, MSG (Ret) "Monty" Montgomery, SFC Paul Dituro, and Dr Bijan Kheirabadi for their outstanding work in developing this update to the TCCC Guidelines.





Instructions for Change 15-03

- In TFC #1 of version 150603, replace slide #72 with slides #3 and #4 below to create new slides #72 and #73.
- Insert slides #5 through #18 below into TFC #1 after new slide #108 (Hemostatic Dressing Practical).

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Tactical Field Care Guidelines

Bleeding

 For compressible hemorrhage not amenable to limb tourniquet use or as an adjunct to tourniquet removal, use Combat Gauze as the CoTCCC hemostatic dressing of choice.

Alternative hemostatic adjuncts:

- Celox Gauze or
- ChitoGauze or
- XSTAT (Best for deep, narrow-tract junctional wounds)



Tactical Field Care Guidelines

Bleeding (continued)

Hemostatic dressings should be applied with at least 3 minutes of direct pressure (optional for XSTAT). Each dressing works differently, so if one fails to control bleeding, it may be removed and a fresh dressing of the same type or a different type applied.

If the bleeding site is amenable to use of a junctional tourniquet, immediately apply a CoTCCC-recommended junctional tourniquet. Do not delay in the application of the junctional tourniquet once it is ready for use. Apply hemostatic dressings with direct pressure if a junctional tourniquet is not available or while the junctional tourniquet is being readied for use.



XSTAT 30

- First-in-kind expanding wound dressing approved for internal use.
- Syringe-like applicator applies compressed mini-sponges into deep wounds.
- Mini-sponges rapidly expand on contact with blood – compressing the wound to stop bleeding.



RevMedx, 25999 SW Canyon Creek Road, Suite C, Wilsonville, OR 97070 www.revmedx.com



XSTAT 30 Indications For Use

XSTAT 30 is a hemostatic device for the control of severe, life-threatening bleeding from junctional wounds in the groin or axilla not amenable to tourniquet application in adults and adolescents.





XSTAT 30 Indications For Use

XSTAT 30 is a temporary device for use up to four hours until surgical care is acquired. It should only be used for patients at high risk for immediate life-threatening bleeding from hemodynamically significant, non-compressible junctional wounds when definitive care at an emergency care facility cannot be achieved within minutes.

XSTAT 30 is NOT indicated for use in: the thorax; the pleural cavity; the mediastinum; the abdomen; the retroperitoneal space; the sacral space above the inguinal ligament; or tissues above the clavicle.



XSTAT 30's Technical Characteristics

XSTAT 30 is composed of compressed mini-sponges coated with chitosan – a compound designed to stop bleeding.

Upon contact with blood, the mini-sponges absorb blood and, expand to 10 - 12 times their compressed volume within approximately 20 seconds.

A radiopaque marker is embedded into each of the mini-sponges to make them detectable by X-ray.

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XSTAT 30 Instructions for Use

Open the package and remove the applicator.



Pull the handle out and away from the barrel until it stops and locks.





XSTAT 30 Instructions for Use

Place the tip of the applicator into the wound track as close to the bleeding source as possible.



Firmly depress the handle to deploy the mini-sponges. The sponges should flow freely into the wound.





XSTAT 30 Instructions for Use

- DO NOT attempt to forcefully eject the material from the applicator. If resistance is met, pull the applicator back slightly to create additional packing space, then continue to depress the handle.
- Use additional applicators as necessary to completely pack the wound with minisponges.
- Pack XSTAT into the wound to the same density you would gauze. The higher the sponge density in the wound cavity, the higher the pressure exerted on the damaged vessel.





XSTAT 30 Instructions for Use

- Cover the wound with a pressure dressing.
- If bleeding persists, apply manual pressure until the bleeding is controlled.
- Never attempt to remove the minisponges from the wound. They must be removed by a surgeon after achieving proximal and distal vascular control.





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XSTAT 30

 XSTAT training video will be inserted here.



XSTAT Removal Instructions

- The manufacturer includes a casualty card inside the XSTAT package.
- Instructions to the surgeon for removing the sponges from the wound are included on the back of the card.
- Record the use of XSTAT on the DD 1380, and forward these instructions along with it to the Medical Treatment Facility.





Warnings/Cautions

- XSTAT contains material derived from shellfish.
 - A mild pyrogenic response has been elicited in biocompatibility tests.
 - Monitor the casualty for fever, chills, hypotension, and shock.



Warnings/Cautions

- Segments of the applicator tip may break away during application and be left in the wound.
 - After injecting the mini-sponges, check the applicator tip for missing segments.
 - Do not attempt to retrieve missing segments from the wound.
 - Record the number of lost segments on the TCCC Casualty Card.

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