



J SOM

JOURNAL of SPECIAL OPERATIONS MEDICINE™



THE JOURNAL FOR OPERATIONAL MEDICINE AND TACTICAL CASUALTY CARE



Inside this Issue:

- › Case Report: Needling Techniques for Chronic Neck Pain
- › Case Report: Machine Learning and Hemodynamic Instability
- › In Brief: Comparing C-A-T® Gen 6 to Prototype Gen 7
- › TCCC Guidelines: XStat™ Sponge for External Hemorrhage
- › Comparison of Tactical Tourniquets
- › Junctional Tourniquet Testing for Groin Hemorrhage
- › SOF Testing of CRoC and JETT Tourniquets
- › Triage Accuracy and Reliability During OEF
- › Point-of-Care Ultrasound Update
- › Editorials: SOLCUS After-Action Report, USASOC Division of Science & Technology, Traumatic Brain Injury, and Power to the People
- › Letters to the Editor: Needle Decompression and The Hartford Consensus
- › Ongoing Series: Clinical Corner, Human Performance Optimization, Infectious Diseases, Injury Prevention, Law Enforcement & Tactical Medicine, Operational Medicine in the Austere Environment, Picture This, Prolonged Field Care, Special Talk, World of Special Operations Medicine, TCCC Updates, TacMed Updates, and more!

*Dedicated to the
Indomitable Spirit
and Sacrifices of
the SOF Medic*

TCCC UPDATES

Dr Frank Butler

A novel hemostatic product called XStat™ has recently been developed by RevMedx in Wilsonville, 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.

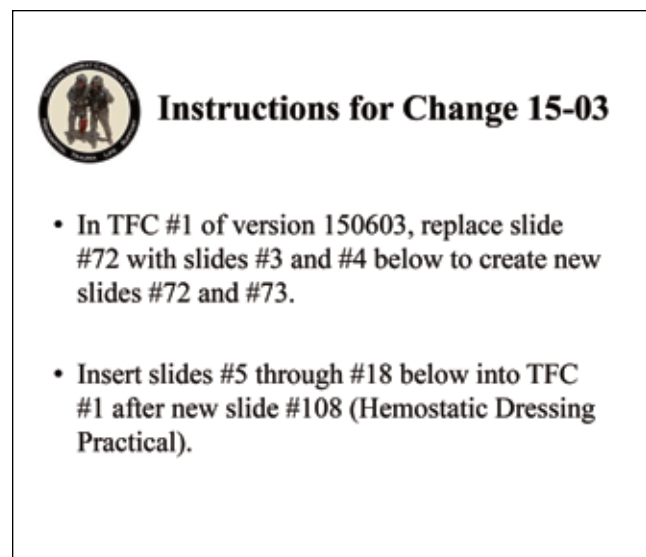
A proposed change to the TCCC Guidelines to add XStat as a hemostatic adjunct was recently reviewed by the TCCC Working Group and approved by the required two-thirds or more of the voting members of the CoTCCC. XStat may be particularly useful in junctional wounds in the groin or axilla in which the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





Tactical Field Care Guidelines

4. Bleeding

- b. 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

4. 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.

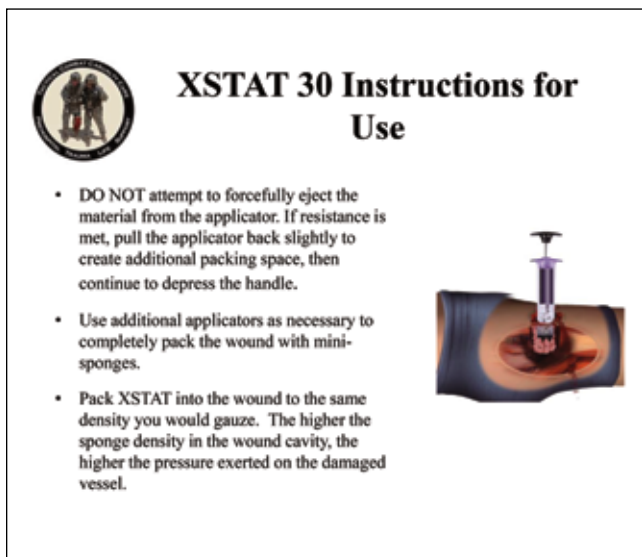
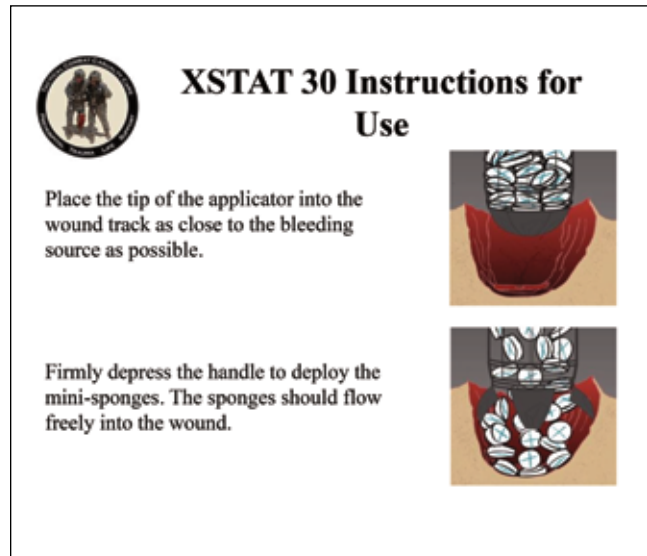
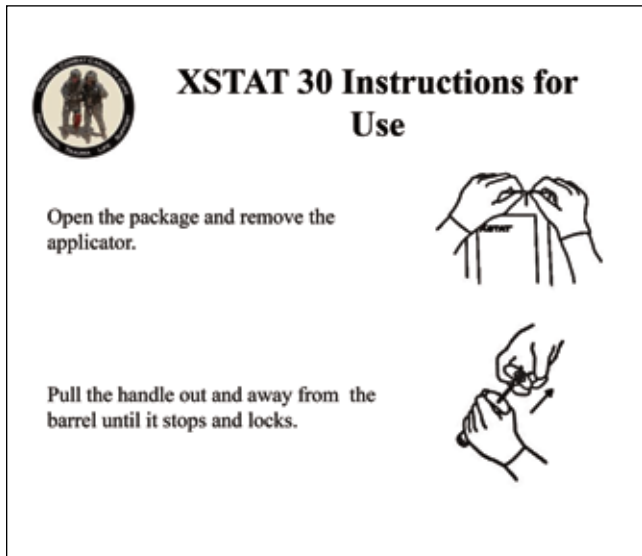
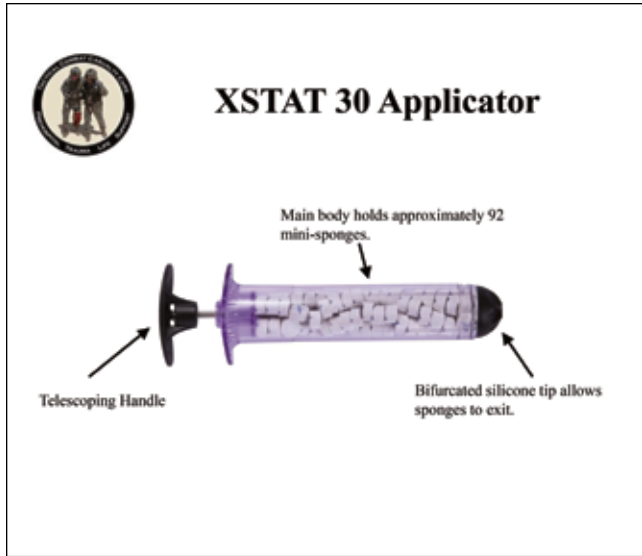


XSTAT 30's Technical Characteristics

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.





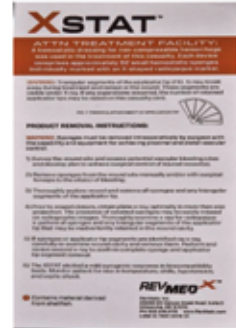
XSTAT 30

- 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.