FEEDBACK TO THE FIELD (FT2F) #16:

Junctional Emergency Treatment Tool (JETT): Observations

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DISCLAIMER

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BACKGROUND:

- The Junctional Emergency Treatment Tool (JETT™) is FDA-cleared for control of difficult inguinal bleeding common in high extremity thigh/groin wounds where ordinary extremity tourniquets (TQs) cannot fit.
Two individually-adjustable compression pads allow for bilateral (or unilateral) occlusion of blood flow to the lower extremities.
BACKGROUND:

• Recommended compression pad placement is…

- 30 degree angle to apex
- Below the inguinal ligament (— — —)

* Note: Pad footprint” over femoral vessels
JETT PLACEMENT ON A MANNEQUIN

Viewed from the head

Viewed from the feet
JETT PLACEMENT ON A MANNEQUIN
CASE STUDY:

• Based on autopsy at the Office of the Armed Forces Medical Examiner (OAFME), Dover AFB

• Medical intervention in this case included a JETT, a device not previously encountered
CT VIEW OF IN-SITU POSITIONING:
CT VIEW OF IN-SITU POSITIONING:

• Note placement of the two compression pads

*Note: Extremity TQs were also placed on proximal thighs
Right pad footprint in relation to the inguinal ligament (......)

Left pad footprint in relation to the inguinal ligament (......)
OBSERVATIONS:

• Left pad was positioned close to recommended site. Right pad was oriented vertically (as opposed to a 30 degree angle), and only its lower portion extended below the inguinal ligament

• Both compression pad screws were inclined toward the midline, and their T-handles were in contact

• We can not assume that the position at the time of CT was the position at application; positional changes may have occurred during transport

• This case exhibited evidence of non-survivable blast injuries at autopsy
COMMENTS:

• The JETT is manufactured by North American Rescue (Greer, SC)
  ▪ Cost: $220 (approx)
  ▪ Weight: 725 gm / 1 lb, 9 oz
  ▪ FDA (510k) clearance: 03Jan13 (K123194)

• Researched & tested by USAISR and AMEDD C&S; performed safely & effectively in ideal settings
  ▪ Accuracy in targeting the pressure point is essential to the JETT’s effectiveness

• Further DoD test & evaluation is underway, including a comparison of the 4 currently-available junctional tourniquets (JTQs)
REFERENCE:


  ▪ JETT was compared with the Combat Ready Clamp (CRoC™)
  ▪ When the JETT or CRoC was applied in the groin, there was an immediate cessation of fluid flow from the common femoral artery while the inlet flow aortic pulsatile pressure was maintained
  ▪ The time to bilateral application of the JETT was faster (10 seconds vs. 68 seconds) than bilateral sequential application of two CRoC devices
DoD LOGISTICS:

• Over the last 12 months, the DoD has spent $508k on JETT purchases

• JETT may be purchased via the Medical Supply System (ECAT, DLA, Cardinal Health, Owens & Minor) and w/ Govt credit card

• There are 4 JTQs currently being purchased and used by the DoD (see table, next slide)

• Per 07Mar14 Combat Medic TCON, JETT is the 2nd most preferred JTQ (after SAM Junctional Tourniquet)
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<thead>
<tr>
<th>NSN</th>
<th>DEVICE</th>
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<td>6515-01-616-5841</td>
<td>Junctional Emergency Treatment Tool (JETT)</td>
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<td>Abdominal Aortic Tourniquet (AAT/AAJT)</td>
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SUMMARY:

• JTQs, including the JETT™, are utilized to control the difficult inguinal bleeding common in high extremity thigh/groin wounds

• Four different JTQs are currently used by DoD
  - All are in the early stages of use; there is inadequate field data for any final conclusions
  - Anecdotal evidence suggests the need to address training and durability issues for all junctional TQs

• Report any issues encountered when using JTQs (e.g., functionality issues, breakage, etc.) to appropriate individuals per your command policy
NOTES of CAUTION:

• The clinical circumstances and details surrounding emergency treatment in these cases are unknown

• This presentation makes no association between device use and outcome of treatment

• This case is drawn from cases with fatal injuries, which may skew data or interpretation
For FT2F Comments / Questions / Requests:
Contact the Armed Forces Medical Examiner System (AFMES)

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