

The Orthopedic Panel with a Physical Therapy overview was held at the JRCAB, Ft Detrick, MD on 28 Jan 03. The Clinical representative was the panel moderator.

Panel Attendees:

List of members deleted.

Prior to the panel meeting, the moderator mailed hard copy and / or emailed the following items to the participants for review and input:

Orthopedic Treatment Briefs

Medical Material Set composition for the Operating Room / Ortho Cast Room/Physical Therapy Orthopedic Instrument tray sets

The Panel members were requested to submit in advance their outstanding orthopedic and physical therapy issues for their services for discussion with the other panel members.

The panel was opened by the JRCAB Staff Director. He asked the panel members to review Chap 5 of the Force Protection Document for any inclusion they felt needed to be added or any other changes they felt needed to be made to the document.

A presentation was made on the use of the Ultrasound Sonosite 180 for orthopedic procedures in an austere field site by the company representative.

A presentation of the Joint Formulary was done by the Pharmacy ASD. The panel members will review the items to see if they meet the needs of orthopedic requirements. Any input will be emailed back to the JRCAB.

The Orthopedic Panel met and discussed the following agenda items:

**MISC:**

1. Add Physical Therapy skills to:

Level 2 for Army, Marines, Navy

Level 3 for Army, Marines, Navy

Level 4 for Army, Marines, Navy, Air Force

Humanitarian / Disaster Care

2. In the event of no availability of sterile irrigation solution:

Chlorinated water (1 part Bleach, 6840-01-468-6164, & 9 parts water) can work very well for irrigation in a field setting. The most important aspect of irrigation is the removal of particulate.

Irrigation of wounds with Castile soap (6505-00-903-6210) and Zephiran Chloride is acceptable and found to be advantageous in ridding the wound of bacteria.

Wound irrigation can be just as successful with an asepto syringe as with the disposable "pulse irrigator" and would take less weight and cube. Recommend decreasing "pulse irrigators" in the ortho areas and increasing number of asepto syringes.

There was a perception that each patient was programmed for 9000 cc's of wound irrigation solution. In fact, they are only programmed for 3000cc's. This was found to be acceptable.

Archive Level 3 Arthroscope Tray – no arthroscopies will be done in theater Level 2 & 3 due to history of poor Return to Duty (RTD) results.

Ultrasound. Only Navy felt ultrasound would be of benefit for use at Level 2. The ultrasound did demonstrate the penetration of a pinning perforation of the cortex. No decision was offered for placement of ultrasound at Level 2 by all members. Additionally, it was recognized training would be required for use and result interpretation.

External fixators. All agreed that continuing educational endeavors need to be made to educate deploying physicians on the placement of external fixation devices. An "Extremity War Course", funded by the Army's OTSG and taught by Dr. Dougherty, is currently being offered for all deploying Orthopedic Surgeons. All will continue to present the topic at any military medical meetings they attend and see if information can be placed on appropriate websites.

The panel recommended changing to a "2-bar" Hoffman external fixator rather than continue with the "one bar" fixator currently being used. Reports from the field indicate most surgeons open 2 peel packs of the ex fix to be able to use 2 bars. With the switch to the other Hoffman II pack, this will result in an overall cost savings and decreased waste of unused parts.

The Howmedica Government Rep met individually with the panel members at the SOMOS meeting and at JRCAB. The 2-bar Ex Fix pack is over double the price of the 1-bar pack due additional items included in the pack. To redesign the 2-bar pack, the military would accrue a redesign charge. The panel was informed of the company input. The panel has now recommended staying with the current 1-bar pack as they felt sufficient stabilization could be achieved with one-bar, and the cost of changing to a 2-bar design would not be warranted.

**Pharmaceuticals:**

Do not mix antibiotics to irrigation fluids – no added benefit

Pre-packaged antibiotic beads are available overseas, but have not yet been approved for use in America by the FDA. Therefore, material needs to be available to allow mixing of antibiotic beads by hand in the OR. Will be reflected in the appropriate MMSs and CSGs.

A minimum of 75% of all open wounds need to be treated with antibiotic beads. Will be reflected in the Treatment Briefs.

Requested that it be ensured that the powder form of Vancomycin and Tobramycin be included in a deployment formulary &/or the Joint Formulary for use in the making of

antibiotic beads. These items are included in the Joint Formulary per the ASD of Pharmacy.

**Treatment Briefs:**

Closure of wounds should be changed to 1% to allow for treatment of lacerations – not trauma inflicted wounds that will not be closed. Changes will be added to TBs and the assumptions.

Change reference to MAST trousers to SHEET in Treatment Briefs and TTT. A sheet wrapped around the patient to stabilize the pelvic girdle is sufficient. A COT (Commercial Off the Shelf) pelvic stabilizer will be researched to eventually or potentially replace the MAST trousers and a common sheet.

Orthopedic wounds exposed to Radiation, Treatment Briefs 413-415, will be closed prior to departing theater with a drain in place – prefer to be done at Level 2, but no later than Level 3. Will be added to TBs and the assumptions.

Nerve agent exposure will require wound irrigation with Dakin's Solution (Bleach & water). Will be added to TBs and the assumptions.

**MMSs:**

**D301 – Level 3 OR:**

- a. Delete 6515-01-334-3232 MONITORING SET INTRA-COMPARTMENTAL PRESS BTRY OPER 5X3X2" LTWT and all support components for Ortho procedures. Not required. Required for Burn, Sport Injury, and venomous bite assessment. Item is still available in the Triage MMS.
- b. Delete 6515-01-373-0854 BOWL BONE CEMENT MIXING W/PADDLE PLASTIC STERILE DISPOSABLE 20S. Not required.
- c. Increase Asepto syringes and decrease 6515-01-444-1638 Irrigator Surgical in Ortho sets.

**D201 – Level 2 OR**

Replace via attrition the current External Fixator, 6515-01-463-1464 'FIXATION EXTERNAL ORTHOPEDIC STER HOFFMAN II' Style for a "2-Bar" External Fixator by the same company after attaining NSN – A follow up panel decision was to not go with a 2-bar fixator.

- b. Increase Asepto syringes and decrease 6515-01-444-1638 Irrigator Surgical

**3. D302 – Level 3 CMS**

- a. Add Burgess Clamps (1 pr) for external fixation to 6515-01-464-0077 FIXATION SET EXTERNA ORTHOPEDIC HOFFMANN II – 1 pair to each set. Additional note: Unable to place this item in the "tub" due to space, therefore the clamp would have to be placed in an OR tray. The

panel has decided that due to the cost of the clamp (\$958 per) , the fact that pelvic injuries comprise less than 1% of war injuries, and you can achieve basic stabilization with the current set, the Burgess Clamps will not be added at this time.

b. Increase 6515-01-464-0077        FIXATION SET EXTERNA  
ORTHOPEdic HOFFMANN II to total of 2

Replace 6515-01-434-4914 FIXATION DEVICE EXTERNAL ORTHOPEDIC (due to incompatibility with Hoffman II) with:

6515-01-463-1464    FIXATION EXTERNAL ORTHOPEDIC  
STER HOFFMAN II STYLE.

Delete from D302, but add to a Humanitarian / Disaster Augmentation Set:

1. 6515-01-436-1020 INSTRUMENT AND IMPLANT SET MINI-  
FRAGMENT ORTHOPEDIC SURGERY

2. 6515-01-384-9030 INSTRUMENT & IMPLANT SET MINI FRAG  
(Small Frag Set) ORTHO BASIC LC-DCP AND DCP

3. 6515-01-316-2803 SCREW SET BONE 8 COMPONENTS  
AUTOCLAVABLE CASE W/REMOVABLE COVER

e. Add Antibiotic Sleeve (Richards) to go over pins.

**D314 – Ortho Cast / Physical Therapy**

Add 4" and 6" Plaster (done)

**D417 – Ortho Surg Aug**

Add 6515-01-384-9030 INSTRUMENT & IMPLANT SET MINI FRAG (Small Frag  
Set) ORTHO BASIC LC-DCP AND DCP

Add 6515-01-500-6063 BONE SURGERY SET DHS/DCS W/SELF TAPPING  
SCREWS

Add 6515-01-308-6378 PLATE SET BONE COMPRESSION ACCOMMODATES 4.5  
AND 6.5MM DIA SCREWS

d. Add 6515-01-316-2803 SCREW SET BONE 8 COMPONENTS  
AUTOCLAVABLE CASE W/REMOVABLE COVER

e. 6515-01-436-1020 INSTRUMENT AND IMPLANT SET MINI-FRAGMENT

**Trays :**

**T204** – Increase Gigli saw blades, 6515-00-363-2700, to a total of 2 (Also in CMS  
MMS)

**T021** – Change Drill system to 6515-01-498-1935 SMALL BATTERY DRIVE SET  
(Synthes)

**T032** – Add "Z" retractor (pair); See if chisel grinder / sharpener is available for field  
use

**T034** – Add Gigli saw blades 6515-00-363-2700 (2)

**T035** – Add Senn Retractor 6515-01-113-2623 (pair); Add Ragnell Retractor (pair)

**Consumable Supply Groups – CSG**

1. **G066** – Delete 6515-01-373-0854 BOWL BONE CEMENT MIXING W/PADDLE PLASTIC STERILE DISPOSABLE 20S. Not required.

Increase 6505-01-262-4529 CEMENT BONE SURGICAL RADIOPAQUE STERILE 10 BOXES PER PACKAGE to 75% of patients

Add Ioban 6530-01-155-6697 (Iodine impregnated drape) for antibiotic beads – 3M (Drape pouch antimicrobial incise)

**G220** – Increase allotment of arterial line sets in anesthesia set to measure compartment pressure at Level 2. Use NSN for Arterial Line, 6515-01-434-1421, at Level 2 on TTT.

The meeting was adjourned at 1600 on 28 Jan 03. Panel members will forward any further comments on the Force Protection Document Chap 5 and the Joint Formulary via email.

Minutes recorded by Sandra L. Brunken, JRCAB