BACKGROUND

The following is a proposed starting point for planning and coordinating medical/surgical supplies for hospitals throughout the United States during a large scale CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive) or Natural disaster. These supply formularies were created based on feedback and input from multiple hospitals and healthcare systems and have been reviewed by AHRMM members, their clinical representatives, and members of HIDA. The lists are intended only as starting points for preparedness efforts and should be modified to fit each hospital according to its individual needs and feedback from its clinicians.

“Large scale” refers to events that will produce casualties beyond that which can be planned for by a single hospital. By definition, the event will not impact a single facility but will affect communities and regions. These events will require planning beyond the individual hospital and will include all segments of supply and points of care in a region. Hospitals must be self-reliant until Federal aid arrives, within 24–72 hours after Federal Emergency Management Agency (FEMA) has been contacted and the event has been declared a Federal disaster.

MEDICAL/SURGICAL SUPPLY FORMULARIES

Under this plan, medical/surgical supplies are separated into seven formularies and a staff formulary. It is important to note that these formularies are for medical/surgical supplies and do not include products for Radiology or Pharmacy. The Core Formulary has the basic supplies needed for each adult casualty in any type of disaster scenario. The Pediatrics Formulary includes the basic supplies needed for each pediatric casualty regardless of type of disaster. The remaining five specialty formularies are supplemental to the Core or Pediatric Formulary and include only the supplies specific to each type of disaster listed in the diagram below. In addition to patient formularies, the Staff Formulary contains the supplies needed for each hospital staff person.

CONSIDERATIONS FOR MATERIALS MANAGEMENT PROFESSIONALS

Hospital’s Internal Supply Chain

Included in each hospital’s plan should be the ability to redirect supplies already within the hospital’s supply chain to the areas first impacted. Step one for Materials Management is to examine the hospital’s internal supply chain. With clinical experts, the hospital units/departments should be identified that might be closed in the event of a large-scale disaster. Materials Management should identify the supplies that might be diverted from these areas and routed to the first response areas. Also, stretchers from these areas should be identified, as many of the events will produce casualties beyond a single hospital’s ability to provide available beds.
**Working with Suppliers and Others**

Materials Management must determine the amount of supplies to keep on hand until replenishment arrives. Each facility’s disaster readiness team must investigate the best means for having quality supplies that are readily available. This determination is individual to each facility.

When working with suppliers, Materials Management should determine the length of time needed for delivery from the time of the first call. Additionally, the clinicians will need to determine the maximum number of casualties the hospital will be able to treat during this period of time. Based on the maximum number of casualties before suppliers’ replenishments arrive and the amount of supplies that could be diverted from other areas of the hospital, Materials Management will be able to determine how much additional product must be kept on hand.

Essential to this plan is working with suppliers and establishing pre-event orders that can be activated with a single phone call or email. Each order will be specific to the individual hospital’s needs by type of disaster using the supply formulary model. This preplanning also will help the suppliers maintain adequate inventory, which will assure that the pre-order can be delivered at any time with complete fill levels.

**Other Critical Components**

Since disaster scenarios of this size will exceed the hospital’s ability to support casualties, it demands a community response plan. Work with local agencies, including fire fighters, public health department, Civil Defense, any offices of Emergency Preparedness, and other members participating in the Metropolitan Medical Response System as well as with other hospitals and healthcare providers that service the community. Cooperative agreements should be drafted among all the hospitals and healthcare providers for mutual support.

A single source of communication should be identified for the entire community, and each hospital should use this source to request additional supplies and to coordinate the flow of supplies to the areas most in need. With the possibility that every hospital is placing demands on supply sources, this coordination is imperative to prevent chaos.

This plan should be practiced with the community and community agencies to identify where the plan might need to be revised or strengthened. It is essential that the preparedness plan(s) be in place and tested soon. The real danger is not to plan for the unthinkable.

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### Disaster Supply Formularies

#### CORE FORMULARY

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instruments/Equipment</strong></td>
<td>BP Cuffs, Disposable BP Manometer Batteries-AA, AAA, D, C, 1 gross per incident Artificial Resuscitator Bag, 10% child, 5% infant</td>
</tr>
<tr>
<td><strong>Irrigation Solutions</strong></td>
<td>Normal Saline Irrigation Solution 2000cc Sterile Water Irrigation Solution 2000cc</td>
</tr>
<tr>
<td><strong>IV Access/Supply</strong></td>
<td>IV Start Kits Micro Drip Tubing Adult Drip Tubing Blood Admin. Tubing Disposable IV Pressure Bag Metri Set Tubing Arterial Line Tubing</td>
</tr>
<tr>
<td><strong>IV Solutions</strong></td>
<td>LR 1000cc NS 1000cc Central Vein Catheter Kit Multi Lumen Central Catheter Kit Long Arm Board Short Arm Board Stopcock</td>
</tr>
<tr>
<td><strong>Linen</strong></td>
<td>Disposable Sheets Disposable Pillows Disposable Pillow Covers</td>
</tr>
<tr>
<td><strong>Hand Hygiene</strong></td>
<td>Providine/Iodine Scrub Brushes PCMX Scrub Brushes (1 box per 100 casualties)</td>
</tr>
<tr>
<td><strong>Patient Personal Care Supplies</strong></td>
<td>Bath Basin Emesis Basin Facial Tissues Bedpan Urinal Belonging Bag Regular Soap Mouth Care Supplies</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
<td>Sterile Lubricant Alcohol Wipes PVP Wipes Tongue Depressors 5 in 1 Connectors Garbage Liners Blood Glucose Testing Supplies Waterproof Markers Body Bag (25 per 100 casualties) Blank Labels/Tags Individual Bottled Drinking Water</td>
</tr>
</tbody>
</table>
## PEDIATRIC FORMULARY

### Instruments / Equipment
- Disposable BP Cuffs-Neonatal, Infant, Child, Small Adult
- Artificial Resuscitator Bag Masks: Ped, Infant

### Patient Personal Care Supplies
- Bath Basin
- Cotton Swabs
- Facial Tissues
- Diapers
- Pacifier
- Belonging Bag
- Cotton Balls

### Respiratory System Supplies
- Nasal Airways
- Oral Airways
- Oxygen Cannulas
- Oxygen Masks

### ER / Trauma / Surgical Supplies
- Scalpel #11
- Sutures (to be ordered individually by box)
- General Instruments Tray
- Facial Suture Tray

### CHEMICAL
- Balanced Salt Solution
- Disposable Sheet
- Miscellaneous
- Sterile Water Irrigation
- Irrigation Solution
- Urometers
- Foley Catheter Trays
- Sterile Towels
- Sterile Sheets
- Small Sterile Basins
- Electrodes
- Monitoring Electrodes
- Dressings
- Bandage Scissors
- 2X2 Dressings
- 4X4 Dressings
- Adhesive IV Dressing
- 4" Bandage Rolls
- 1" Paper Tape
- Adhesive Bandages
- Linen
- Disposable Sheets
- Disposable Pillows
- Disposable Pillow Covers
- Suction Kit / Cup 14FX22
- Stomach Tube
- 50 Micron Mask
- Miscellaneous
- Solution 3000 cc
- Solution 3000 cc

### GENERAL INSTRUMENTS TRAY
- Scalpel Blade Holder (#3, #4)
- Scalpel Blades (#10, #11, #15, #20)
- Disposable Safety Scalpel (#15)
- Suture Sets
- Silk & Gut Sutures (ordered in bulk by facility)
- Thoracostomy Tray
- Peritoneal Lavage Tray
- Chest Tubes (12, 24, 28, 36)
- Chest Drainage Tube with Container
- Sterile Towels
- Sterile Sheets
- Large Sterile Basin
- Small Sterile Basin
- Trocar Chest Tube
- Skin Stapler
- Electrodes
- Tracheotomy Kit
- Dressings
- Bandage Scissors
- Impregnated Dressing
- 3" Dressing
- ABD Pads
- 4x4 Dressings

### IV SOLUTIONS
- Glucose Water
- NS 10 cc
- NS 1000 cc

### Irrigation Solutions
- Normal Saline Irrigation Solution 2000 cc
- Sterile Water Irrigation Solution 2000 cc

### Miscellaneous
- Sterile Lubricant
- Alcohol Wipes
- Alcohol Swab Sticks
- Tongue Blades
- Heel Warmers
- Tape Measure
- Arm Board - Infant, Child
- Blood Administration Tubing
- IV Filters (.22 micron, 1.2 micron)
- Syringe Pump Tubing
- Micro Drip Tubing
- Individual Bottled Drinking Water

### STAFF
- Hand Hygiene
- Personal Hand Foam Sanitizer
- Protective Gear
- Sterile Gloves, All Sizes
- Exam Gloves, Medium
- Latex Free Gloves, Medium
- Fluid Resistant Gowns
- Masks
- Googles
- Shields
- Protective Goggles
- Eye Wash
- Isolation Gown
- Hair Cover
- Liquid Scrub Soap
- Individual Bottled Drinking Water