Pharmacy Deployment Issues: Roles, Responsibilities and Challenges

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Operation Unified Response Haiti

NATO Role III MMU, Kandahar, Afghanistan

USNS Comfort/Mercy Disaster and Humanitarian Missions

Photos courtesy of LCDR Jesse Schmidt, LCDR Ashlee Espiritu, LCDR Jonathan Shea, LT John Ganther
CPE Information and Disclosures

LCDR Jonathan Shea declare(s) no conflicts of interest, real or apparent, and no financial interests in any company, product, or service mentioned in this program, including grants, employment, gifts, stock holdings, and honoraria.

The American Pharmacist Association is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.
CPE Information

- Target Audience: Pharmacists and Pharmacist Technicians
- ACPE#: 0202-0000-18-222-L04-P/T
- Activity Type: Knowledge-based
Learning Objectives

- List examples of successful pharmacy activities in deployment patient care scenarios.
- Explain how pharmacists and technicians have overcome challenges to deliver care in combat or humanitarian settings.
- Describe successful examples of the expanded role of international operational deployments.
Self-Assessment Questions

1. Which of the following is recommended as refresher training prior to deploying to NATO Role 3 Kandahar?

   a. Pediatric and IV dosing of critical care medications
   b. Pharmacokinetics
   c. Sterile Technique and IVPB preparation
   d. All of the above
2. Which of the following is deemed the biggest challenge for pharmacy personnel during disaster relief missions?

a. Complying with Joint Commission Standards

b. Adequate supply of essential medications to meet the mission

c. Getting snacks

d. Language Barriers
3. Which represents the unique shift that Pacific Partnership 2018 took in its mission?

a. Increased emphasis on collaboration and capacity building

b. Focus on providing American medications to host nation patients

c. "Westernizing" more countries health systems

d. No change from previous missions
Navy Pharmacy Deployments

USNS Mercy

USNS Comfort

NATO Role 3 MMU Kandahar, Afghanistan

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NATO Role 3 Kandahar Pre-Deployment Phase One

Prior to leaving Parent Command

Inpatient Refresher/Training
- Order entry
- Pharmacokinetics
- Sterile Technique and IVPB preparation
- TPN orders

Medical Workup
- Immunizations (Anthrax and Smallpox vaccines)
- Neuro tests – computer based

Computer-based Training
- Extensive language training
- Cultural information
- Survival, Evasion, Resistance, Escape (SERE) training
NATO Role 3 Kandahar Pre-Deployment Phase One

Phase One: Navy Mobilization Processing Site San Diego, CA (5 days)

Legal paperwork
• Emergency Contact Information
• Life Insurance
• Power of Attorney
• Will

Final Medical Screening

Uniform Issue
Pre-Deployment Phase 2: Tactical Combat Casualty Care

Camp Pendleton, CA (4 days)

Provides skills to assess and manage combat casualties from point of injury to a higher level of care.

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Pre-Deployment Phase 2: A-11 Combat Skills

Fort Bliss, TX (20+ days:)
(Formerly@ Fort Jackson, SC )

- Weapons training
- Convoy operations
- Cultural training

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Transition Phase 3

Al-Udeid Airbase, Qatar (3-7 days)
(Formerly Camp Arifjan, Kuwait)

- Acclimation to heat
- Time zone adjustment
- Berthing: Open Bay Barracks
- Large shower facilities
- Hurry up and wait downtime

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You Have Arrived!

- Bag Drop
- Time adjustment
- Turnover with outgoing Rotation

*PHOTOS CREDIT TO LCDR JESSE SCHMIDT AND LCDR ASHLEE ESPRITU*
<table>
<thead>
<tr>
<th>Pharmacist</th>
<th>Technicians</th>
</tr>
</thead>
</table>
| • 1 Active Duty Navy Pharmacist  
  • On call 24/7 | • 3 Navy Technicians  
  • May cross train an Army Technician from Role 1 |
| **Hours** | **Duty** |
| • 24/7 coverage in the pharmacy  
  • Pharmacist hours 0700-1600 M-F and 0800-1200 Sat,  
  • Pharmacist on call 24/7 for questions & MASCALs  
  • 3 Techs rotate 24 hour shifts | • 0-3 pharmacists and techs perform monthly duty  
  • Duty consists of:  
    • Drop off/Pick-up laundry  
    • Drop off/Pick-up breakfast/lunch/dinner  
    • Duty driver |
A Day in the Life: Roles and Responsibilities

- 0630 - Review of orders received overnight
- 0730 - Rounds in ICU
- 0800 - Leadership Rounds
- 0900 - Check IV batch
- 0930 - Check PO batch
- 1000 - Deliver batch
- 1015 - 1400 - order entry, new IV/PO orders, and Sick Call meds

24/7 – Report to Trauma Bay for Mass Casualty (MasCal) Situations

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# Roles and Responsibilities

<table>
<thead>
<tr>
<th>Host Nation Integration/Training</th>
<th>Leadership Roles</th>
</tr>
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<tbody>
<tr>
<td>• Potential for collaboration and training with Kandahar Regional Military Hospital (KRMH)</td>
<td>• Can compete for directorate position if at least 0-4</td>
</tr>
<tr>
<td></td>
<td>• Collaterals</td>
</tr>
<tr>
<td></td>
<td>• Facetime with CO/XO</td>
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Challenges

**Logistics**
- Limited Formulary
- Limited Supplies
- Formulary controlled by CENTCOM with USAMMC-SWA serving as the logistics arm (Qatar)

**Limitations**
- Lack of Inpatient-trained Technicians
- TC-2 (Theater version of CHCS)/TC-2 GUI have limited capabilities for MAR charting
- Printer issues

**Recommendation**
- Pediatric and IV dosing
  - Review prior to deployment

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USNS Comfort/Mercy Disaster Relief Missions

- **USNS Mercy Operation Unified Assistance 2005**
  - Disaster-relief efforts for the tsunami devasted regions of Southeast Asia.

- **USNS Comfort**
  - Operation Unified Response 2010: Earthquake relief efforts in Haiti.
  - Hurricane Maria 2017: Puerto Rico.
12 Jan - 7.0 earthquake struck in Port-au-Prince, Haiti at 1700

14 Jan - 700 sailors mobilized to go USNS Comfort homeport (Baltimore)

15 Jan 2010 USNS Comfort Departed to Haiti

Traveled at 16 knots (18.4 mph)

18 Jan 200 mi from Haiti started to receive most critical patients by helo

19 Jan Arrived in Port-au-Prince
### Roles: Operation Unified Response USNS Comfort

#### Navy Pharmacy Staffing Matrix

<table>
<thead>
<tr>
<th>Pharmacist</th>
<th>Technicians</th>
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<tbody>
<tr>
<td>• 5 Navy Pharmacists (2 Active Duty/3 Reserve)</td>
<td>• 16 Navy Pharmacy Technicians</td>
</tr>
<tr>
<td></td>
<td>• 14 Active Duty / 2 Reservists</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Hours</th>
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<tbody>
<tr>
<td>• 24/7 Coverage</td>
</tr>
<tr>
<td>• 2 pharmacists 0700-1530, 2 pharmacist 1500-2300, 1 pharmacist 2230-0700</td>
</tr>
<tr>
<td>• 7 Techs 0700-1530, 6 Techs 1500-2330, 3 Techs 2300-0700</td>
</tr>
</tbody>
</table>
### Responsibilities: Operation Unified Response USNS Comfort

<table>
<thead>
<tr>
<th>Pharmacist</th>
<th>Technicians</th>
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</thead>
<tbody>
<tr>
<td>• Critical Care</td>
<td>• Inpatient/Critical Care</td>
</tr>
<tr>
<td>• Majority of patients NPO</td>
<td>• Outpatient Pharmacy responsibilities</td>
</tr>
<tr>
<td>• Nearly every IV infusion</td>
<td>• Ship to shore</td>
</tr>
<tr>
<td>• Crush injuries</td>
<td>• Deliver medications for aid stations</td>
</tr>
<tr>
<td>• Rhabdomyolysis</td>
<td>• Assist pharmacist ashore</td>
</tr>
<tr>
<td>• TPN</td>
<td></td>
</tr>
<tr>
<td>• ACLS</td>
<td></td>
</tr>
<tr>
<td>• Outpatient pharmacy</td>
<td></td>
</tr>
<tr>
<td>• 80 prescriptions daily discharge patients</td>
<td></td>
</tr>
<tr>
<td>• Ship to shore care</td>
<td></td>
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</tbody>
</table>
Logistics

- Ship departed within 72 hours of activation
  - Limited supplies
  - Unknown resupply timeframe
  - Chokepoint getting supplies on ship

Limitations

- Lack of Inpatient-trained staff
- Staff assigned to roles not trained to perform admin vs. direct patient care
- Patients not assigned to beds/wards in CHCS/AHLTA
- John/Jane Does- 20-25% patients admitted
- Controlled substance accountability
Recommendations

- Deploy inpatient Rx trained personnel
- Cache of essential medications needed for mass casualty mission
USNS Mercy: Pacific Partnership 2018: Itinerary

1. Bengkulu, Indonesia
2. Singapore (liberty!)
3. Port Kelang, Malaysia
4. Trincomalee, Sri Lanka
5. Nha Trang, Vietnam
6. Yokosuka and Tokyo, Japan
7. RIMPAC exercise, Hawaii

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USNS Mercy Pacific Partnership 2018: Diverse Team

Collaborative Pharmacy Team

- One Navy Pharmacist
- One Army Pharmacist
- One Air Force Pharmacist
- One Canadian Armed Forces Pharmacist
- Two Japanese Maritime Self-Defense Force Pharmacists
- One Project Hope Pharmacist
- Thirteen Pharmacy Technicians (One Air Force Technician)
- One Australian Pharmacist (onboard the USNS Brunswick—the EPF vessel)

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Capacity Building Interventions

- Each mission consisted of a cohort of medical missions with an emphasis on education and capacity building within the host nation
- Hundreds of hours of information exchanges conducted

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Capacity Building Interventions

- **Pharmacy-led events:**
- Ancillary and Biomedical Subject Matter Expert Exchange at Bengkulu General Hospital in Indonesia
- Pharmacy Collaborative Exchange with the Japanese Maritime Self-Defense Force in Yokosuka, Japan
Cooperative Health Engagements (CHE)

- A change from previous missions
  - Host nations purchased medications in the host country to utilize at the CHEs
  - Pharmacy dispensed medications and learned from the host nation pharmacists on medications available and best practices within the country
- Integrative CHE experience
  - Indonesia & Sri Lanka: provided care to over 5,000 patients
  - One pharmacist round with the provider teams

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USNS Mercy Pacific Partnership 2018: Challenges

**Logistics**
- Drug shortages (**extremely** difficult to plan for a five month mission when the ship is not on allocation for shortage products)
- Authorized Medical Allowance (AMAL) is outdated and providers are identified too late in the planning phases to evaluate the AMAL

**Limitations**
- A single Navy pharmacist to train six pharmacists (foreign and sister forces) on Navy pharmacy policies while planning host nation missions
- Lack of inpatient training for nearly all pharmacist technicians on the mission
A pharmacist **must** be on the advanced echelon (ADVON) team and **must** have served on a Pacific Partnership or Continuing Promise mission in the past.
Self-Assessment Questions

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Self-Assessment Questions

2. Which of the following is deemed the biggest challenge for pharmacy personnel during disaster relief missions?

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c. "Westernizing" more countries health systems.

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Key Points

- NATO Role 3 Deployment to Kandahar, Afghanistan offers potential to collaborate and train with Afghani medical teams at KRMH.

- It is recommended pharmacists deploying to NATO Role 3 Kandahar have refresher training in all aspects of inpatient pharmacy.

- The severity of injuries likely seen in disaster relief missions such as Operation Unified Response usually involves life, limb or eyesight.

- Disaster relief missions usually have deployed members relying on rationing limited supplies with unknown timeframes of when to be resupplied.

- The 2018 Pacific Partnership mission consisted of a cohort of medical missions with an emphasis on education and capacity building within the host nation.

- Feedback from all three deployments emphasized to deploy inpatient pharmacy trained pharmacists and technicians.
Closing Remarks

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