Prolonged Field Care: The Pararescue Experience

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Disclosure
The views expressed in this material are those of the authors and do not reflect the official policy of the U.S. Government or the Department of Defense.

Prolonged Field Care (PFC)

• Field medical care, applied beyond doctrinal planning time-lines...

• Medical intel from these missions often remains at the unit level

• We need to define the epidemiology, environment and operational factors that affect PFC
Pararescue and Pararescuemen (PJs)

- Elite combat force specifically organized, trained, equipped, and postured to conduct full spectrum personnel recovery
- Paramedics capable of parachute or rotary wing insertion to the point of injury and patient evacuation by land, sea or air
- What is the PJ experience with PFC?

Methods

- Retrospective review of PFC encounters
- Surveys solicited on prolongedfieldcare.org and distributed to U.S. military medical providers
- Structured and unstructured questions
- Included in-field and forward surgical care lasting 4 or more hours
- Subset analysis of missions where a PJ was the PFC provider

Limitations

- Data only obtained from active military
- No field documentation requirements
- Missing demographics and treatments
- Sparse treatment information beyond PFC itself
- We do not know the incidence of PFC encounters
Results

- 59 surveys were received from OCT 2015 to AUG 2016
- Five surveys excluded
  - Lack of sufficient patient care details – 1 excluded
  - Medical diagnoses which did not require urgent evacuation – 3 excluded
  - Mass casualty incident with hundreds of patients – 1 excluded
- 54 patients in 41 MEDEVAC missions from DEC 2001 to JUN 2016
- 20 of 54 (37%) patients were managed by a Pararescueman

Combatant Command

- NOTAIFCOM 10%
- CENTCOM 0%
- AFRICOM 10%
- PACOM 70%
- USNORTHCOM 15%
- Not specified 5%

Factors Contributing to PFC

- Enemy activity 10%
- Weather 5%
- Aircraft mechanical issues 5%
- Remote location 100%
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<table>
<thead>
<tr>
<th>Mode of Infil and Treatment Location/Platform</th>
<th>Infil of care provider</th>
<th>Treatment and Exfil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infil of care provider</td>
<td>Treatment and Exfil</td>
<td></td>
</tr>
<tr>
<td>Aircraft</td>
<td>Aircraft</td>
<td>25%</td>
</tr>
<tr>
<td>Fixed wing</td>
<td>Rotary wing</td>
<td>15%</td>
</tr>
<tr>
<td>Rotary wing</td>
<td>Fixed wing</td>
<td>10%</td>
</tr>
<tr>
<td>Parachute</td>
<td>Ship/boat</td>
<td>40%</td>
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<tr>
<td>Ground vehicle</td>
<td>Ground vehicle</td>
<td>10%</td>
</tr>
<tr>
<td>On foot</td>
<td>Structure</td>
<td>35%</td>
</tr>
<tr>
<td>Marine vehicle</td>
<td>Outdoors</td>
<td>25%</td>
</tr>
</tbody>
</table>

*Multiple locations and modes of transport may be used for a single event

All reported parachute insertions were by PJs

30% of patients required care in two or more locations
**Patient Classification**

**Injury Classification**
- Life threatening: 95%
- Limb/eye threatening: 5%
- Non threatening: 0%

**Mechanism Category**
- Battle injury: 10%
- Non-battle injury: 50%
- Medical illness: 40%

**PFC Duration and Mortality**

**Non PJ PFC cases (n=34)**
- Death during PFC: 11.8%
- Duration of prehospital care: Median 5 hours (IQR 4-15), Range 4-60 hours

**Pararescue cases (n=20)**
- Death during PFC: 5%
- Duration of prehospital care: Median 16.5 hours (IQR 5.8-39), Range 4-120 hours

*Pararescue reported twice as many PFC encounters >24 hours*

**Discussion – What can we improve?**

- Shipboard operations
- Telemedicine
- Long-term TBI management
- Monitors and ventilators
- Patient hygiene
- Preplanned pack-out lists
Discussion – What can we improve?

• Preparation:
  • Packing adequate fluids/products
  • Preplanned pack-out lists based on number of patients
  • Medications to treat rescuer seasickness
  • High visibility for civil and humanitarian ops

• Performance
  • Improve documentation
  • Utilize teleconsultation

Conclusion

• Prolonged field care is a vital subset of military medicine

• Pararescue missions compose a large portion of reported PFC events and have some unique features

• Lessons learned from these and future PFC events will help improve mission planning and better inform the training and equipping of PJs and medics.