Introduction of Modern Stretchers in the Armed Forces

Dear Editor,

This is with reference to the review article "Introduction of Modern Stretchers in the Armed Forces for Improving Casualty Evacuation in Field with Special Reference to Casualty Evacuation in Mountains" in MJAFI-2005; 61:157-62. This is a heartening development. We request reconfirmation of the figure 60m line mentioned in sub-para (f) (v) of the article.

1. We are an Army Avn Sqn (R&O) in NE sector. Our gambit of operation includes carrying out casualty evacuation from helipads located at altitudes of 15,000' approx.
2. Using Cheetah helicopters we carried out trials using two of the modern stretchers namely 'Thermosoft Helilift' and '310 Rescue Litter (Paraguard)'. Working around the aircraft stretcher incompatibilities and aerodynamic permissibility, we found the stretchers suitable for use in vertical and horizontal modes. In the horizontal mode the stretcher could be winched up alongside the cabin and stabilized on the cross bar. This allowed the heptr to carry out a sit down. In the vertical mode only a hover pick up and release was possible as the length of the stretcher was extending beyond the skids which precluded an attempt at heptr sit down. Physiologically the vertical mode of transportation over long distances is not recommended and this mode was found suitable for extraction from inaccessible areas and short distance transportation.

Reply

The length of line to steady the stretcher, as 60 m is confirmed. If required the product pamphlet of the manufacturer can be obtained from the author.

The usage of the stretchers described, will necessarily be influenced by the air evacuation asset being used. Cheetahs the light utility helicopters developed from the Alouette II, the lama have demonstrated their capabilities as a rescue machines though they are not primarily meant for an air ambulance role. The stretcher for casualty evacuation is to be placed longitudinally after removing the co-pilots seat and rudder on the port side. However since single pilot flying is not permitted, the stretcher could be slung underneath in either horizontal or vertical axis of the aircraft to enable a "sit down".

Since in flight care like suction/oxygen, intravenous fluid/drug administration is often required to be continued by the attendant, "external: air evacuation should be done only when inescapable. Besides for a conscious patient a ride outside the aircraft in high altitude could be very unnerving!

Fig: Cheetah with the stretcher alongside

3. The floor width in the passenger section is 137cm and therefore the stretcher (length of 184cm approx) while being carried on board tends to 'stick out'. Manipulating the stretcher in vertical/horizontal mode is excluded by it's length and rigidity as it cannot be maneuvered around the heptr skids.

Maj S Karki

Graded Specialist (Avn Med), 667 Army Avn Sqn (R&O) C/o 99 APO

Limitations of stretcher maneuverability will always be there, unless a rotary wing asset is specifically designed for rescue and air ambulance role.

Inspite of structural inadequacies of the Cheetah helicopter for casualty air evacuation they have been used for the same from high altitude posts. They are also being used for air transfers in emergency situations from one medical echelon to another in the passenger section of the cockpit/cabin, without stretchers for want of better alternative.

Experience of a forward medical unit which air evacuated 132 patients mostly battle casualties post operatively, on cheetahs to rearward medical echelon entitled. "An Appreciation of Casualty Air Evacuation from 328 Field Ambulance" is available with the author

Lt Col S Katoch

Medical Officer (Hosp Services), Army Hosp (R&R), Delhi Cantt.