



Modernising Care Delivery

The Impact of Modular Training and Equipment Structures for Antarctica

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Introduction

When considering polar operations, a key facet or consideration of part of the operational planning is the medical risk. Operating at significant reach with limited resource can generate an imbalance between the risk itself and the level of mitigation available. In order to optimize medical risk mitigation (MRM), deploying individuals should receive training to support the deployed medical asset or to provide immediate medical care to those they are deployed with. To effect optimal MRM, training must be consistent with clearly defined learning objectives/outcomes that are drawn from the reality of operating at extreme reach in adverse conditions.

Within the British Antarctic Territory, all individuals who deploy as part of the British Antarctic Survey will have undergone mandatory 'first aid' training to enable them to support with the care of an injured casualty or, if first on scene at a medical incident, provide immediate aid with thorough knowledge of the equipment available to them.

ICCE Pack

The 'Immediate Casualty Care Equipment' pack represented the first stage in modularization of medical equipment for operations at reach. Designed for carriage by the highest level of medical capability, the ICCE pack is held at high readiness for use on station or in the immediate vicinity. It has also been designed to be taken with medical assets to the sites of casualties if additional medical support is needed off station.

Project SPIDER

The second phase in modularization is under the heading of Project SPIDER – Sustaining Personnel in Deep Field and at Extreme Reach – looking to adapt all other medical equipment structures to promote standardization and a common language between medical user and population requirements¹. This project is ongoing and looks to review medical equipment in support of cold operations, off station activity, recreation and leisure as well as aligning all remote sites or equipment depots to have a common structure.

The greatest challenge is understanding the exact risk of the activity and its location. This has driven a novel review process on how risk is communicated – through mapping scientific activity, team movement, equipment utilization and the inherent risks of the environment, BASMU are now able to accurately deliver a scaled modular healthcare system to suit the team.

CRASH Course

To support utilization of modular equipment, a complete overhaul of pre-deployment medical training is underway. Replacing the previous course structure, CRASH or Combined Rescue and Sustained Hold, looks to train all deploying personnel to level of medical capability depending on the components of the course undertaken. The full CRASH course represents a multi-phase, theoretical and practical training course with in-field scenario and equipment testing.

Conclusions

Although the project is ongoing, large aspects of the project have been delivered successfully. It is hoped that this modular approach to training and equipment will increase the level of risk mitigation whilst on continent and support increasing levels of scientific activity.

References

1. Wears RL. Standardisation and Its Discontents. Cogn Technol Work. 2015 Feb;17(1):89-94. doi: 10.1007/s10111-014-0299-6

