

SPACE LIFE SCIENCES SYMPOSIUM (A1)
Medical Care for Humans in Space (3)

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AUSTRALIAN ANTARCTIC MEDICAL CARE- GENERALIST SCOPE OF PRACTICE, TRAINING
AND SUPPORT- A SPACE ANALOGUE.**Abstract**

Medical support in extreme environments, such as space, is challenging due to isolation, confinement and the nature of the extreme environment. Limitations of numbers of personnel, physical, communication and environmental constraints, and the inherent operational risks require a versatile and responsive healthcare provider supported by robust telehealth support and systems. The scope of practice, training and support of the healthcare provider is critical to individual well being and ultimately mission success. Antarctica is an isolated, confined and extreme environment. Antarctica has been described and utilised as a Space Analogue. Australia has conducted expeditions to Antarctica for more than a century and the Australian Antarctic Division(AAD) has maintained a permanent presence in Australia's Antarctic Territory since 1948 with three Continental and one subantarctic stations. With this considerable experience in extreme environment medical care and support, the AAD has developed a comprehensive generalist scope of practice for Antarctic Medical Practitioners to successfully winter as lone medical practitioners in Australia's Antarctic Program without option for winter evacuation. This scope of practice is supported around the clock with advanced telemedicine support including surgical training and support for emergency appendicectomy, orthopaedics, remote anaesthesia monitoring, dentistry and mental health support. This Australian generalist scope of practice is underpinned by vocational and university training pathways in conjunction with the Australian College of Rural and Remote Medicine, the Tasmanian Health Service and the University of Tasmania. Australian Antarctic medical care, scope of practice, training and advanced telehealth support has lessons for exploratory space travel and other remote and extreme environments.