

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

Author: Dr. Shawna Pandya
Canada, shawnapandya@gmail.com

TOWARDS A PERMANENT MEDICAL CAPABILITY ON THE MOON AND BEYOND

Abstract

As human missions eye the Moon with a view towards establishing a permanent presence there within the decade, we must also start rethinking our approach towards medical capabilities for exploration class missions. Current ISS crew medical officer receive 40 hours of training, but as we move towards more distant locales, with time-delays in Earth communication, prolonged exposure to micro- and reduced gravity environments, increased radiation and longer-mission profiles, we need to rethink our approach to medical personnel, training, skills maintenance, supporting and next-generation technologies, and design considerations to best support future missions. Next, we need a smart and sustainable approach toward medical kit and medication maintenance and resupply. Finally, we need to approach the expansion of medical capabilities, from just-in-time and emergency support to primary care in a logical, graded fashion, borrowing from lessons learned in austere environments on Earth and in space.