

AEROMEDICAL EVACUATION OF PATIENTS WITH HIGHLY INFECTIOUS DISEASE IN ITALY: LESSONS LEARNED

ÉVACUATION AÉROMÉDICALE DES PATIENTS AVEC UNE MALADIE HAUTEMENT CONTAGIEUX EN ITALIE: LEÇONS APPRISSES

A AUTORE, N CECCARELLI, F ARGANESE, M LASTILLA, F FIORE, R BISELLI, D ABBENANTE
ITALIAN AIR FORCE, POMEZIA (RM), ITALY
ALBERTO.AUTORE@AM.DIFESA.IT

Introduction: Highly Infectious Diseases pose a constant threat and have been a challenge for public health systems within recent years. Air evacuation (AE) of patients with potentially lethal, contagious infections poses unique challenges and risks to aircrews and medical personnel. The Italian Air Force during the past ten years has developed the biomedevac capability to transport safely patients with potentially lethal communicable diseases.

Methods: We describe the development of the program for AE of patients with highly infectious diseases and the summary of the missions carried out using the Aircraft Transit Isolator (ATI) system. The ATI is a sealed container in PVC, under negative pressure maintained by a battery-powered HEPA-filtered ventilation. Integrated gloves with long sleeves, allow patient handling from outside and basic monitoring and treatment interventions. The system is suitable for different aircraft (C-130J, C-27J, KC-767) and the airworthiness was evaluated by the Flight Test Center. The AE team is composed by anesthetists, infectious disease specialists, flight surgeons and flight nurses who underwent a specific training and follow regular exercising. All the activities are in coordination with the Public Healthcare System.

Results: In the past ten years the AE team of the Italian Air Force was involved in the evacuation of several patients. Most missions were flown in Italy, including a patient with EVD who developed the disease soon after coming back from Africa. One mission was an intercontinental flight from Sierra Leone to Italy by Boeing KC-7 to repatriate a doctor who developed EVD while working in Africa. All the missions were successful.

Conclusions: AE of patient with highly infectious disease is possible by proper equipment, procedures and training. In our experience the ATI showed to be effective for in-flight patient care, easy to implement and safe for the operators.