Launch and Landing of Russian Soyuz – Medical Support for US and Partner Astronauts

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Launch and Landing of Russian Soyuz – Medical Support for US and Partner Astronauts

• Launch – Baikonour
  • USOS 1 Crew Surgeon, 1 Deputy Crew Surgeon, 1 Russian Based US Physician
  • IP – 1 IP Surgeon

• Landing – Kazakhstan
  • USOS 1 Crew Surgeon, 1 Deputy Crew Surgeon, 1 Russian Based US Physician
  • IP – 1 IP Surgeon
  • Direct Return Doctor
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• **Launch - Roles**
  - USOS Crew Surgeon – Quarantine and direct care to crew before launch, then present in close proximity to launch for abort.
  - IP Crew Surgeon – same
  - Deputy Crew Surgeon – Back up for crew surgeon, care for immediate family, stationed at airport for helicopter abort response
  - Russian based US doctor – Coordinate with SOS staff

• **Landing – Roles**
  - USOS Crew Surgeon – Nominal helicopter response and initial medical care and support during return on gulfstream
  - IP Crew Surgeon – same
  - Deputy Crew Surgeon – Ballistic helicopter support
  - Russian based US doctor – Coordinate with SOS staff
  - Direct return doctor – Direct medical care on return flight
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R+0 Route of Flight
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- **Launch - Capabilities**
  - Trauma Kit
  - Launch specific supplement
  - Local facilities
  - Russia based US doctor for coordination

- **Landing – Capabilities**
  - Trauma Kit
  - Ultrasound, Vscan, fluid warmer, vein finder, iStat
  - Landing specific supplement
  - Local facilities
  - Russia based US doctor for coordination
Condition

Dehydration
Neurovestibular
Nausea/Vomiting

Environmental

Hypothermia
Hyperthermia
Noise, Sun, Wind
Spacecraft Failure

Blunt Trauma

Airway
Closed Head
Chest

Abdominal
Cardiac
Spinal

Eye
Fracture - Crush
Laceration
Burn

Hypobaric Exposure
Hypoxia

Assessment
First Response

PO/IV Hydration
NC Scan
Antebrachial Medication

Passive Re-warming
Active Re-warming
Passive Cooling
Active Cooling

Clear for 992

Host Nation Support

Skill Set Training

Equipment - Supplies

IVC Scan
LV Training

LV Set-up
IV Cath

Pressure Monitor
Stethoscope
Anti-Acid Medications
Vascular Menu

Thermometer
Resuscitation Pack
Space Blanket

Humidification Unit
Suction
Lip Shield

Gloves
BLS

BLS

ALS

14G Needle
ECG Monitor
Pulse Ox

Face Shield
Face Mask
Soft Bandage

Eye Shield

Eye Irrigation

BLS

VSCAN

CPR
O2

CPR
O2

Assess Tats

Hypertonic Crystalloid
H/Freq Vork

EpiPen

Dexa

Medical Oxygen

AED

EpiPen

AED

EpiPen

AED
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