

3.2 Medical Requirements Overview**TABLE 3.2: MEDICAL REQUIREMENTS OVERVIEW**

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| MRID# and Title: | MR021S Crew Microbiology |
| Sponsor: | Medical Operations |
| IPT: | Immunology/Infectious Disease |
| Category: | Medical Requirements (MR) |
| References: | AMERD, JSC 24834 Appendix B, Pre- and Postflight Medical Evaluation Requirements for short-Duration Flights (Less than 30 days) Section 4.1 Preflight MORD for Shuttle Missions Section 4.3 Microbiology Section 4.3.1 Preflight Requirements |
| Purpose/Objectives: | Physicians will perform microbiological evaluation of crewmembers to complement clinical laboratory analyses and the physical examination. |
| Measurement Parameters: | Cultures of throat, and urine |
| Deliverables: | Preflight medical assessment test (MAT) report of results to Flight Surgeon |
| Flight Duration: | <30 days |
| Number of Flights: | All Shuttle flights |
| Number and Type of Crew Members Required: | All Crewmembers |
| Other Flight Characteristics: | N/A |

3.3 Preflight Training - None

3.4 Preflight Activities

TABLE 3.4: PREFLIGHT ACTIVITIES

| | | | | | |
|--|---|---|----------------------------------|--------------------------|----------------------------|
| Preflight Activity | Description: | Includes: Throat samples for bacterial culture and a rapid Group A Streptococcus test Urine samples for bacterial and fungal culture | | | |
| | Schedule: | Duration: | Schedule: | Flexibility: | Personnel Required: |
| | | Crew Microbiology 15 min | L-10 days | N/A | Crewmembers/Lab Personnel |
| Ground Support Requirements Hardware/Software | Preflight Hardware: | Preflight Software: | | Test Location: | |
| | Urine Collection Kit Crew Sample Collection Kit | N/A | | U.S. | |
| Training Facilities | Minimum Room Dimensions: | Number of Electrical Outlets: | Temperature Requirements: | Special Lighting: | |
| | 8' x 10' (typical exam room) | N/A | Ambient | N/A | |
| | Hot or Cold Running Water: | Privacy Requirements: | Other: | | |
| | Sink with hot and cold water to wash hands | Access to rest rooms for urine collection | 1 table, 1 chair | | |
| Constraints/Special Requirements: | None | | | | |
| Launch Delay Requirements: | Microbiology testing will be repeated at flight surgeon's discretion if launch is delayed. | | | | |
| Notes: | None | | | | |
| Data Delivery: | <ul style="list-style-type: none"> • A preliminary test report will be delivered to the crewmember's flight surgeon 48 hours following testing on L-10 days. • In the event that the flight surgeon requests testing on L-2 days, a preliminary report will be delivered to the flight surgeon 24 hours following that testing. • A final report will be submitted 7-10 days following preflight activity. | | | | |

3.5 In-Flight Activities - None

3.6 Postflight Activities - None

3.7 Summary Schedule

TABLE 3.7: SUMMARY SCHEDULE

| ACTIVITY | DURATION | SCHEDULE | FLEXIBILITY | BLOOD VOLUME | PERSONNEL REQUIRED | CONSTRAINTS |
|---------------------------------|----------|-----------|-------------|--------------|--------------------------|-------------|
| Preflight Training - N/A | | | | | | |
| Preflight Activity | | | | | | |
| Crew Microbiology - MAT | 15 min | L-10 days | N/A | N/A | Crewmember/Lab Personnel | None |
| In-Flight - N/A | | | | | | |
| Wheels-Stop - N/A | | | | | | |
| Postflight - N/A | | | | | | |
| Postflight Debrief - N/A | | | | | | |