Exploration Medical Capability

**FRACTURE RISK**

**Gateway Lifecycle Milestones**

**DST Planning Milestones (PPBE19 proj)**

**Risk Characterized, Treatment Validated**

- Fracture Healing - Puttlitz Final Report
- Whole Joint Health Final Report (NSBRI)
- Gap Closure Assessment
- Portable Quantitative Ultrasound (NSBRI)
- Bone Fracture Treatment

**Notes:**

1. We don't understand how the spaceflight environment affects bone fracture healing in-flight.
2. We need to characterize the loads applied to bone for standard in-mission activities.
3. We need a validated method to estimate the risk of fracture by evaluating the ratio of applied loads to bone fracture loads for expected mechanically-loaded activities.

**Med12**

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**Legend:**

- **Milestone Slip**
- **Ground Rev PPBE18**
- **ISS Required PRR Interg. Rev PPBE18**
- **ISS Not-Req. PRR Interg. Rev PPBE18**
- **Ext-Deliv (ISS Req)**
- **Ext-Deliv (ISS Not-Req)**
- **ISSDRM**
- **Non-ISS DRM**
- **Delivery to OCHMO**
- **Transition to Ops**
- **Delivery to Ops**

**Status Date:** 3/30/18