

# Exercise Associated Heat Related Illness: Observation Protocol

## Observation Admission Criteria

### Presentation is consistent with:

- Isolated heat related illness with mild dehydration
- Need for continued fluid hydration, or
- Sequential laboratory evaluation for:
  - rhabdomyolysis
  - hepatic injury
  - acute kidney injury (BMP, Hepatic Function Panel, Total CK, PT/INR, UA)

### Vital signs stable with:

- SBP > 90
- HR < 115
- normothermic and normal mental status (GCS 15)

### Laboratory analysis consistent with:

- moderate dehydration/mild rhabdomyolysis with Cr < 2x baseline/normal upper limit
- Total CK < 20,000, LFTs < 500 with normal coagulation parameters

**Anticipated observation stay:** > 8 hours and < 23 hours

### Cooling measures::

- Heat illness requiring cooling measures (ice bath, evaporative cooling) while at UCMC ED
- Currently normothermic, but requiring continued temperature monitoring

### Disposition Home from Observation

- Normothermic without requiring cooling measures since placement in observation with normal mental status and vital signs
- Tolerating oral liquids and medication
- Improvement of metabolic abnormalities evidenced by Cr downtrending or within normal values, Total CK downtrending and < 5,000 and no evidence of liver dysfunction
- Appropriate follow up in place for continued monitoring

### Disposition Admission from Observation

- Unstable vital signs, altered mental status, hyperthermia requiring cooling measures while in observation
- Clinical picture consistent with continued Heat Stroke with AMS, seizure, etc.
- Cr > 2x upper limits of normal despite fluid resuscitation, uptrending total CK > 20,000, LFTs uptrending or > 1000 or abnormal coagulation indicating acute liver injury