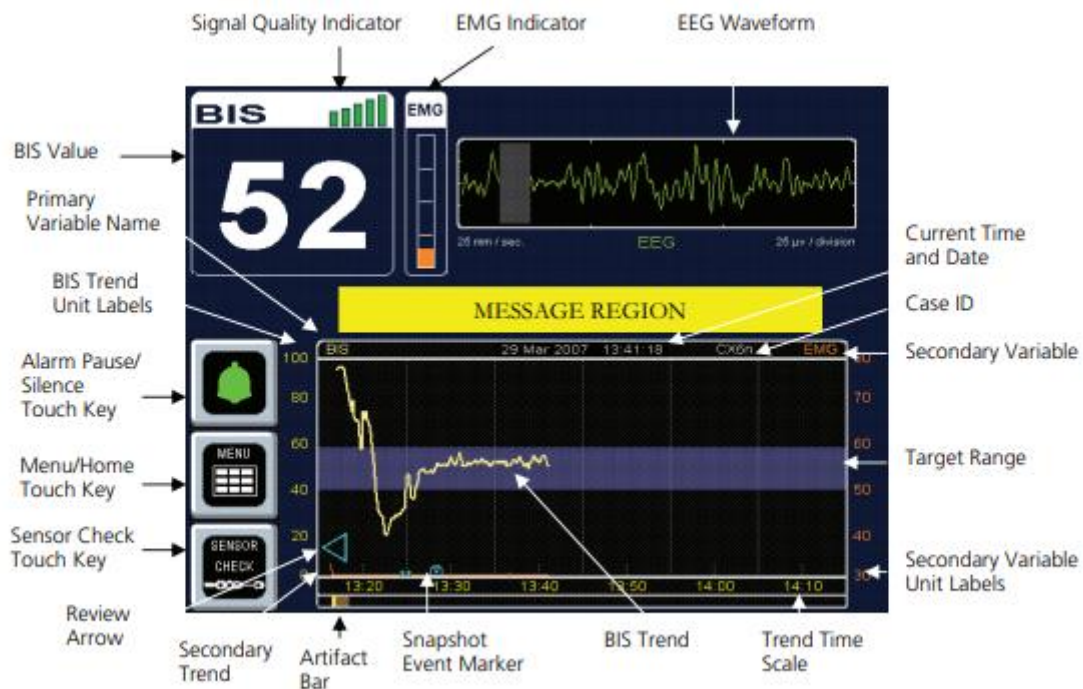


UHS RSCH ICU Neurosurgical Prompt Cards

BIS (Bispectral Index) use in Critical Care

Guidelines for patient use



A BIS monitor must be in place to ensure patients have adequate analgesia and sedation prior to administration of neuromuscular blockade

BIS DATA:

- **BIS:** Current numeric value of Bispectral Index & also displayed as BIS trend graph 0-98
- **EMG:** Electromyograph Indicator Bar - identifies muscle activity
<30 not significant
1 bar = power 30-38 range
2 bars = power 39 -47 range
3 bars = power 48-55 range
4 bars = power greater than 55

SECONDARY VARIABLES

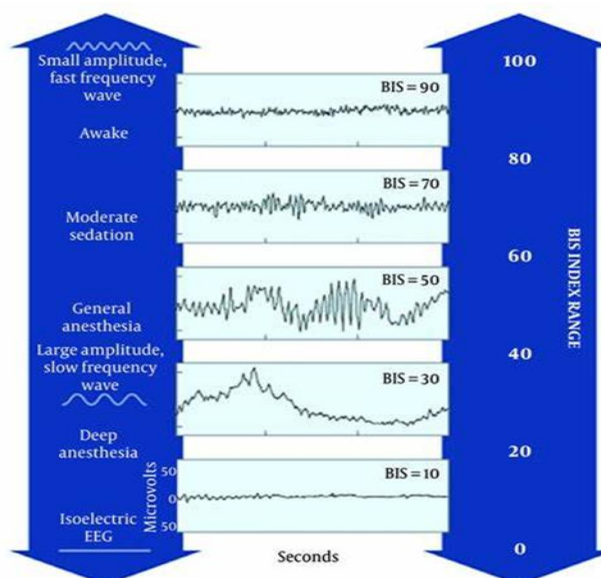
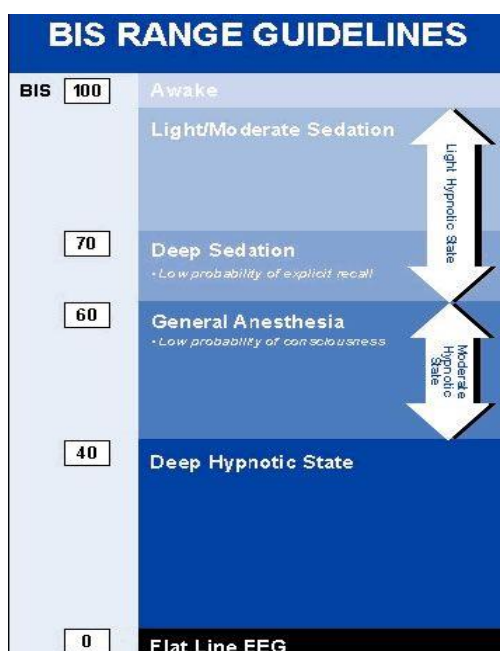
- **Suppression Ratio** : 0-100 (the % of times the EEG is suppressed within any given minute)
- **Signal Quality Indicator** : 0-100 (<20 cannot calculate BIS)

Please record BIS hourly on Metavision main observations page just above RASS & Pain score

<input type="checkbox"/> NEURO
GCS
BIS (Manual) ←
TO4 Twitch Value
RA Sed_Level
Pain Score (verbal /10)
<input type="checkbox"/> NEURO (non-verbal)
Pain - Muscle Tension
Pain - Body Movements
Pain - Facial Observation
Pain - Vocalisation
Pain - Ventilation Compliance
CCPOT Score
CCPOT Summary
<input type="checkbox"/> URINE OUTPUT

AIMS IN A PARALYSED PATIENT:

- BIS Initial aims 20-30 dependent on ICP
- EMG < 30
- BIS Barbituate coma aim 10-20 & SR values 60-80%



Factors that may reduce BIS trend:

Hypoxic brain injury

Out of hospital arrest

Hypothermia

MAP >40mmHg

Cerebral oedema

Night/Sleep

Factors that can increase BIS:

Inadequate sedation/analgesia

Anxiety

Recovery from hypoxic brain injury

Recovery from hypothermia