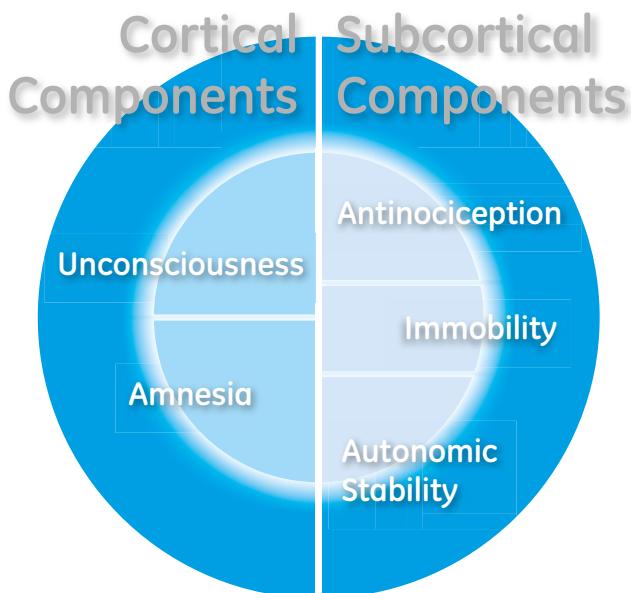




# Adequacy of Anesthesia

## What is Adequacy of Anesthesia?

The Adequacy of Anesthesia (AoA) concept signals GE Healthcare's commitment to provide clinical measurements for the components required for general anesthesia. These measurements help the clinician deliver tailor-made anesthesia to the patient.



## Components of Adequacy of Anesthesia

### Cortical components

**Unconsciousness** refers to the lack of awareness of the outside world. It is this component where the patient is asleep during general anesthesia.

**Amnesia** refers to the patient's loss of memory of the operation. It is imperative that the patient does not have any memory recollections of the events during the operation.

### Subcortical components

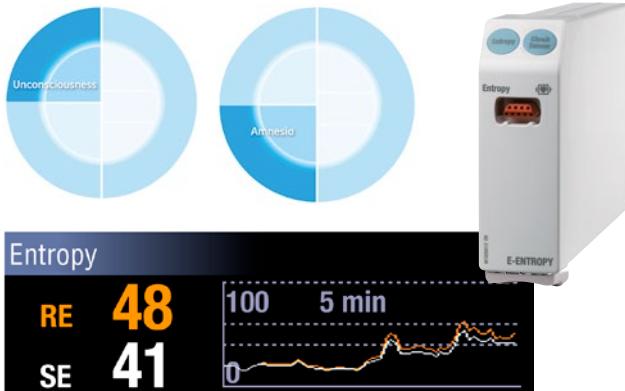
**Antinociception** refers to inhibition of the nociceptive processing in the nervous system. Analgesia is the treatment to provide antinociception.

**Immobility** refers to the patient's lack of motion. Complete immobility should be ensured to maintain a stable surgical field.

**Autonomic stability** refers to the absence of excessive hemodynamic responses.



## GE Healthcare's solution



### Entropy™

Entropy is indicated for adult and pediatric patients older than 2 years within a hospital for monitoring the state of the brain by data acquisition of electroencephalograph (EEG) and frontal electromyograph (FEMG) signals. **Response Entropy (RE)** and **State Entropy (SE)** are processed EEG and FEMG variables.

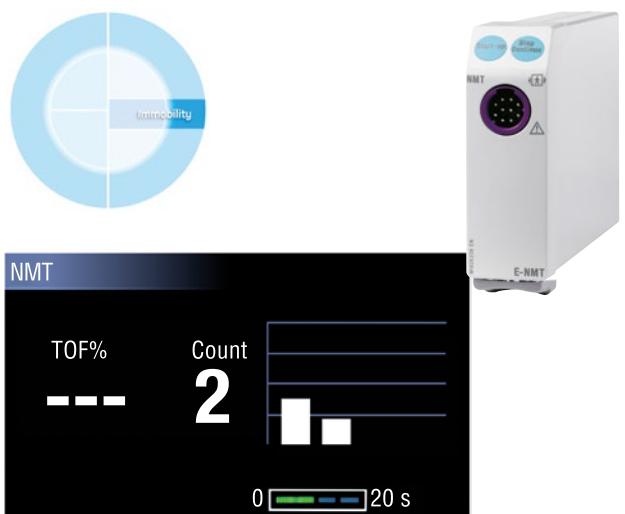
The device that produces this measurement is the E-ENTROPY Module.



### Surgical Pleth Index™

The Surgical Pleth Index (SPI) is indicated for monitoring the patient's responses to surgical stimuli and analgesic medications during general anesthesia. SPI is based on readily available pulse oximetry signals. They are **pulse wave amplitude** and **pulse rate**.<sup>1</sup>

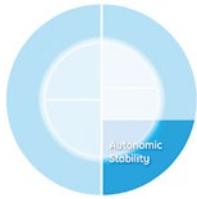
The devices that capture the SPI are the E-PSM(P), E-PRESTN and E-RESTN Modules. SPI should be measured using specified finger sensors only.



### Neuromuscular Transmission

Neuromuscular transmission (NMT) is the transfer of an impulse between a nerve and a muscle in the neuromuscular junction. GE Healthcare's E-NMT Module provides quantitative, automatic measurement of muscle response to stimuli. You can use the following modes: **Train-of-four ratio (TOF%)**, **TOF count, post tetanic count (PTC)**, **single twitch (ST)** or **double-burst stimulation (DBS)**. There are several sensors available for different applications.

<sup>1</sup> SPI is not available for sale in USA and has not been cleared or approved by FDA.



## Multiparameter hemodynamic modules

GE Healthcare's hemodynamic module family, with different parameter combinations, completes the picture of components of AoA. Sudden hemodynamic changes may increase the workload of the patient's heart and by monitoring different hemodynamic parameters, the clinician can help protect the patient from excessive hemodynamic changes and maintain autonomic stability.

## Integrated information helps clinician maintain tailor-made anesthesia



The configurable AoA split screen of GE's CARESCAPE™ modular monitors, combined with hemodynamic parameters and respiratory gas measurements, provides a comprehensive visual view of patient's status.

In the unique AoA split screen, you will find the BalanceView, which combines and plots SPI and SE values. This view helps the clinician monitor the effects of the analgesic and anesthetic pharmaceuticals during general anesthesia.

## Additional resources

For white papers, guides and other instructive materials about GE Healthcare's clinical measurements, technologies and applications, please visit <http://clinicalview.gehealthcare.com/>



## Imagination at work

Product may not be available in all countries and regions. Full product technical specification is available upon request. Contact a GE Healthcare Representative for more information. Please visit [www.gehealthcare.com/promotional-locations](http://www.gehealthcare.com/promotional-locations).

Data subject to change.

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