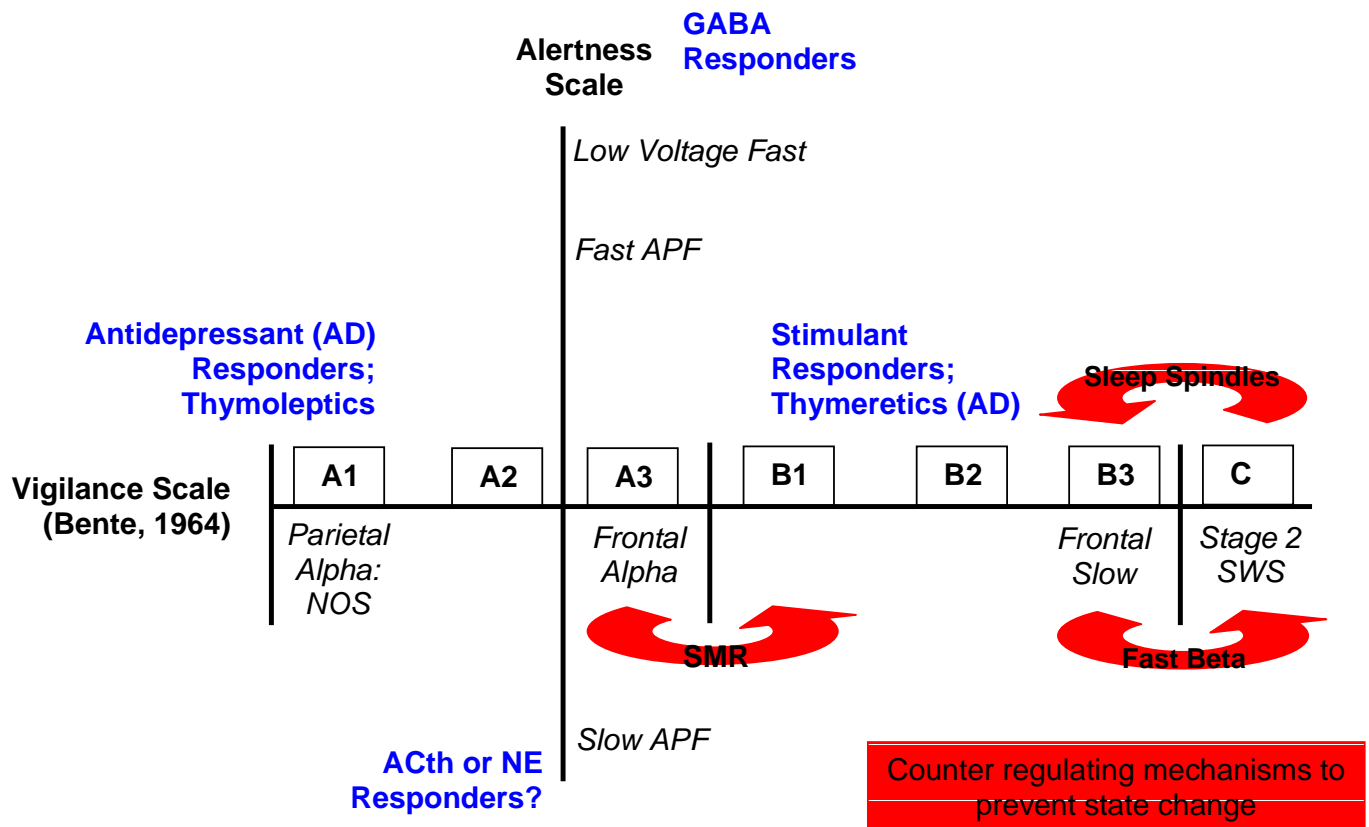


## The 2-dimensional 'Vigilance-Alertness' model, expanded version of the Vigilance model by Bente (1964).

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The picture below shows a graphical display of the 2-dimensional 'Vigilance-Alertness' model. The X-axis displays the original Vigilance model by Bente (1964) with the different A, B and C stages, where the C stages refer to sleep. Below the different stages the EEG Phenotype name in *italics* indicates where the different EEG Phenotypes fit into the model. The Y-axis – which is the main expansion of the model – is called the Alertness Scale. This scale can also be referred to as the Brain Rate or Alpha Peak frequency scale. This scale indicates a very slow APF (bottom) to a very fast APF, finally resulting into a Low Voltage Fast EEG. In Blue we indicated the medication response for the different groups.



### “Neurological” or “Localized” EEG Phenotypes

- 1) Paroxysmal EEG
- 2) Beta Spindles
- 3) Cingulate dysfunctions (midline excess Alpha, excess Theta or excess Beta (spindles))
- 4) Persistent Mu rhythm (not attenuated by hand movement).
- 5) Temporal alpha