

## 2. “Depth of anaesthesia monitoring should be used in all patients who have surgery under anaesthesia with muscle relaxants”

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The primary goal of general anaesthesia is to ensure loss of consciousness during surgery. Nonetheless our ability to accurately assess adequacy of anaesthesia, and guarantee unconscious remains limited. The clinical observations used to assess anaesthetic adequacy all lack sensitivity and specificity for the presence or absence of consciousness.<sup>1</sup> Measurements of end-tidal volatile anaesthetic agent concentrations provide reassurance that the patient is receiving some anaesthetic agent, but provide only limited information about the likely adequacy of anaesthesia, since there is broad variability in the dose required for loss of consciousness.<sup>2;3</sup>

There is growing evidence of dose-related harmful effects of anaesthetic agents,<sup>4;5</sup> and some evidence that excessive anaesthetic doses contributes to mortality rates.<sup>6-8</sup> Thus excessive anaesthesia is harmful and undesirable, and measurement of hypnosis for the purpose of avoiding excessive anaesthesia must benefit the patient.

Inadequate anaesthesia resulting in awareness with recall occurs in approximately 0.18% of patients undergoing general anaesthesia.<sup>9</sup> Since a large proportion of victims will suffer severe adverse psychological effects,<sup>10;11</sup> the 80% reduction in the incidence of awareness associated with BIS monitoring provides another strong argument for measuring hypnosis.<sup>12-14</sup>

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