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# A Critical Appraisal of the Utility of the Serum Anticholinergic Activity Assay in Research and Clinical Practice

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*ABSTRACT* ~ The serum anticholinergic activity (SAA) assay was originally designed to quantify the anticholinergic burden of drug exposure. The same assay has been used to measure the anticholinergic activity of standard drug solutions. There are limitations to the use of the assay in research and in applying these findings to clinical practice. Assays of standard drug solutions do not account for pharmacokinetic differences among drugs, which limits the interpretation of such measurements. In addition, emerging evidence has suggested that anticholinergic medications may not be the only cause of elevated SAA. Despite these limitations, elevated SAA has been consistently associated with cognitive impairment and delirium in a number of research settings. Such findings have prompted investigators to consider the potential application of the SAA assay in research and in clinical practice. Therefore, the objectives of this review are to summarize the current literature involving the SAA assay, describe the relative merits and shortfalls of the SAA assay as a research tool, and discuss the potential for use of the SAA assay as a clinical tool. *Psychopharmacology Bulletin*. 2002;36(2):24-39

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