Disturbances of emotional behavior such as difficulty controlling crying or laughing are common after stroke.\(^1\) The essential feature of emotionalism is an increase in emotional behavior that the patient reports as being outside normal control, which occurs in situations that previously would not have provoked such behavior. In most cases, the disorder is mild and transient, but when severe, it may cause distress and embarrassment to the patient and their friends and family, leading to the avoidance of social contact and reduced quality of life. This is an update\(^2\) of a Cochrane Review we first published in 2004 to determine the effectiveness of pharmacological interventions, compared with placebo, for treating emotionalism after stroke.

**Search Strategy**
We searched the trials registers of the Cochrane Stroke Group (last searched by the Stroke Review Group Coordinator in August 2009) and the Cochrane Depression Anxiety and Neurosis Group (last searched August 2009). In addition, we searched the Cochrane Central Register of Controlled Trials (The Cochrane Library, Issue 3, 2009), MEDLINE (1966 to May 2008), EMBASE (1980 to May 2008), CINAHL (1982 to May 2008), PsycINFO (1967 to May 2008), and other databases. We also searched reference lists, clinical trials registers, conference proceedings, and dissertation abstracts and contacted authors, researchers, and pharmaceutical companies.

**Selection Criteria**
We considered for inclusion all relevant randomized controlled trials or quasi-randomized controlled trials in patients with a clinical diagnosis of stroke, in which a pharmaceutical agent used specifically for the treatment of emotionalism was compared with placebo.

**Results**
We identified 7 trials with 239 participants at entry. Data were available for 5 trials with 213 participants. Five trials showed large effects of treatment: 50% reduction in emotionalism,\(^3\) diminished tearfulness (OR, 9.35; 95% CI, 4.26 to 20.54),\(^4\)-\(^6\) and improvement (reduction) in scores on the Pathological Laughter and Crying Scale.\(^7\) However, CIs were wide for 3 trials\(^3\)^ - \(^7\) indicating that treatment may have had only a small positive effect or even a small negative effect (in 1 trial). Only 2 studies systematically reported adverse events\(^4\)^ - \(^6\); no discernible differences were seen between groups.

**Discussion**
The addition of 2 new trials since 2004 has confirmed previous findings, which indicate that antidepressants reduce the frequency and severity of crying episodes. However, there is continued uncertainty about who might benefit the most from treatment among those who meet the clinical features indicative of emotionalism. There are no data to guide recommendations about how long patients should remain on treatment or what rate of side effects may be expected. Under these circumstances, the current evidence indicates that it would be reasonable to use antidepressants in a therapeutic trial in the individual patient with persistent emotionalism that is sufficiently frequent and severe to warrant taking the known overall risks of prescribing antidepressants in the elderly.

Although these findings appear straightforward, our conclusions remain guarded by several methodological deficiencies in the studies, including the type of participants (the index stroke in these trials varied from 6 days to 13 years before randomization), the definition and diagnosis of emotionalism used (a widely agreed definition is not available), the inclusion of some comorbidities (emotionalism is known to be confounded by depression yet those with depression are included), and the generally poor trial design (small trials, short treatment duration) and reporting of results.

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Disclosures
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References

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