- 28 Orgeta V, Qazi A, Spector AE, Orrell M. Psychological treatments for depression and anxiety in dementia and mild cognitive impairment. *Cochrane Database Syst Rev* 2014; 1: CD009125.
- 29 Petersen RC, Smith GE, Waring SC, Ivnik RJ, Tangalos EG, Kokmen E. Mild cognitive impairment: clinical characterization and outcome. *Arch Neurol* 1999; 56: 303–8.
- 30 Petersen RC. Conceptual Overview. In Mild Cognitive Impairment: Aging to Alzheimer's Disease (ed. RC Petersen): 1–14. Oxford University Press, 2003.
- 31 Visser PJ, Scheltens P, Verhey FR. Do MCI criteria in drug trials accurately identify subjects with predementia Alzheimer's disease? J Neurol Neurosurg Psychiatry 2005; 76: 1348–54.
- 32 Deeks JJ, Altman DG, Bradburn MJ. Statistical methods for examining heterogeneity and combining results from several studies in meta-analysis. In Systematic Reviews in Health Care: Meta-analysis in Context (eds M Egger, GD Smih, DG Altman): 285–312. BMJ Books, 2001.
- 33 Burgener SC, Yang Y, Gilbert R, Marsh-Yant S. The effects of a multimodal intervention on outcomes of persons with early-stage dementia. Am J Alzheimers Dis Other Demen 2008; 23: 382–94.
- **34** Burns A, Guthrie E, Marino-Francis F, Busby C, Morris J, Russell E, et al. Brief psychotherapy in Alzheimer's disease. Randomised controlled trial. *Br J Psychiatry* 2005; **187**: 143–7.
- 35 Spector A, Orrell M, Lattimer M, Hoe J, King M, Harwood K, et al. Cognitive behavioural therapy (CBT) for anxiety in people with dementia: study protocol for a randomised controlled trial. *Trials* 2012; 13: 197.
- 36 Stanley MA, Calleo J, Bush AL, Wilson N, Snow AL, Kraus-Schuman C, et al. The peaceful mind program: a pilot test of a cognitive-behavioral

therapy-based intervention for anxious patients with dementia. *Am J Geriatr Psychiatry* 2012; **21**: 696–708.

- 37 Tappen RM, Williams CL. Therapeutic conversation to improve mood in nursing home residents with Alzheimer's disease. *Res Gerontol Nurs* 2009; 2: 267–75.
- 38 Waldorff FB, Buss DV, Eckermann A, Rasmussen ML, Keiding N, Rishøj S, et al. Efficacy of psychosocial intervention in patients with mild Alzheimer's disease: the multicentre, rater blinded, randomised Danish Alzheimer Intervention Study (DAISY). *BMJ* 2012; 345: e4693.
- 39 Bains J, Birks J, Dening T. Antidepressants for treating depression in dementia. Cochrane Database Syst Rev 2002; 4: CD003944.
- 40 Higgins J, Green S. Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0. The Cochrane Collaboration, 2011 (http:// handbook.cochrane.org/).
- 41 Brodaty H, Arasaratnam C. Meta-analysis of nonpharmacological interventions for neuropsychiatric symptoms of dementia. *Am J Psychiatry* 2012; 169: 946–53.
- 42 Livingston G, Johnston K, Katona C, Paton J, Lyketsos CG. Systematic review of psychological approaches to the management of neuropsychiatric symptoms of dementia. Am J Psychiatry 2005; 162: 1996–2021.
- 43 Olazarán J, Reisberg B, Clare L, Cruz I, Peña-Casanova J, Del Ser T, et al. Nonpharmacological therapies in Alzheimer's disease: a systematic review of efficacy. *Dement Geriatr Cogn Disord* 2010; 30: 161–78.





Serotonin syndrome

Rabia Ellahi

Numerous food and drug combinations, also 'legal highs', may precipitate serotonin syndrome, yet it appears to be rarely diagnosed. This may be explained by diagnostic overshadowing when physical symptoms are misattributed to mental illness. Some symptoms of serotonin syndrome (agitation, tremor and rigidity) overlap with presentations in mental illness. Diagnostic confusion may occur in patients receiving polypharmacy, those receiving medications with previously unknown serotonergic properties or where unforeseen drug interactions occur. Acute medical presentations with hyperthermia and clonus should prompt holistic review to exclude other possible aetiologies. Discontinuation of the suspected agent may avert an array of possible serious outcomes.

