

- 18 Hunsberger J, Austin DR, Henter ID, Chen G. The neurotrophic and neuroprotective effects of psychotropic agents. *Dialogues Clin Neurosci* 2009; **11**: 333–48.
- 19 Caldero J, Brunet N, Tarabal O, Piedrafita L, Hereu M, Ayala V, et al. Lithium prevents excitotoxic cell death of motoneurons in organotypic slice cultures of spinal cord. *Neuroscience* 2010; **165**: 1353–69.
- 20 Bai O, Zhang H, Li XM. Antipsychotic drugs clozapine and olanzapine upregulate bcl-2 mRNA and protein in rat frontal cortex and hippocampus. *Brain Res* 2004; **1010**: 81–6.
- 21 Jarskog LF, Glantz LA, Gilmore JH, Lieberman JA. Apoptotic mechanisms in the pathophysiology of schizophrenia. *Prog Neuropsychopharmacol Biol Psychiatry* 2005; **29**: 846–58.
- 22 Keefe RS, Bilder RM, Davis SM, Harvey PD, Palmer BW, Gold JM, et al. Neurocognitive effects of antipsychotic medications in patients with chronic schizophrenia in the CATIE Trial. *Arch Gen Psychiatry* 2007; **64**: 633–47.
- 23 Waddington JL, O'Callaghan E, Larkin C, Kinsella A. Cognitive dysfunction in schizophrenia: organic vulnerability factor or state marker for tardive dyskinesia? *Brain Cogn* 1993; **23**: 56–70.

extra

There used to be surgeons too . . .

Shabbir Amanullah

The days of the conventional physician seem numbered and one can almost see the day when surgical operations will be performed by robots possibly monitored by a surgeon initially. Surgical emergencies will be dealt with by mobile surgical units that are self-contained and whiz around town performing operations quietly and efficiently. After all, most of the time diagnoses are based on symptom clusters and a well-programmed robot can do the same, with no room for errors due to anxiety, substance misuse, anger, exhaustion, etc., effectively using advanced imaging techniques. Of course, reporting will be outsourced!

Imagine an accident and emergency department with no emotional tension. No anger at the return of a difficult patient. Just a series of television screens and plug-in memory cards in the mobile units. Whole body scans for those with flu-like symptoms and no fears of cross-infections or iatrogenic infections. No more MRSA or VRA (unless we insist that they wear ties!).

It seems increasingly likely that with rapid progress in science we as physicians may be a dying breed. All except, possibly, psychiatry. Grief will be a major issue and so too robot phobias. Those of our medical colleagues looking for work may come for reminiscence therapy – 'Remember the good old days, when we used to . . .' There will of course be those who grieve the loss of the human physician. My message to medical students: join psychiatry and remain employed!

The British Journal of Psychiatry (2011)
198, 87. doi: 10.1192/bjp.198.2.87