Newer antipsychotic drugs are no better than older ones, study finds

Janice Hopkins Tanne *New York*

Older antipsychotic agents are just as effective as the newer, more expensive "second generation" agents, a new study concludes.

The newer drugs, which are almost twice as expensive as the older ones, are no more likely to improve quality of life, say the researchers, from the University of Cambridge and other centres in England (*Archives of General Psychiatry* 2006;63:1079-87).

The study, which was funded by the NHS, reviewed 227 patients aged 18 to 65 years who were users of 14 community psychiatric services in England. The patients had schizophrenia and related disorders and needed a change in treatment.

The authors wrote, "The key

question was whether the additional acquisition costs of second generation agents over first generation agents would be offset by improvements in health-related quality of life or savings in the use of other health and social care services in people with schizophrenia for whom a change in drug treatment was being considered for clinical reasons, most commonly suboptimal efficacy or adverse effects."

In the double blinded, controlled trial patients were randomised to receive either first generation or second generation antipsychotic drugs. The second generation drugs, the authors wrote, "are perceived to be more effective, with fewer side effects, and preferable to patients."

The first generation drugs included chlorpromazine, flupentixol, haloperidol, loxapine, levomepromazine, sulpiride, trifluoperazine, zuclopenthixol, and depot preparations of fluphenazine decanoate, flupentixol decanoate, haloperidol, pipotiazine palmitate, and zuclopenthixol decanoate.

The second generation drugs included risperidone, olanzapine, amisulpride, zotepine, and quetiapine.

Quality of life scales widely used in psychopharmacological treatments for schizophrenia were used to evaluate the participants who underwent blind assessments at baseline and at 12, 26, and 52 weeks after their first randomised treatment. The investigators were able to follow up 185 of the patients (81%) at one year: 100 who had been randomised to treatment with first generation drugs and 85 randomised to second generation drugs.

The results showed that second generation antipsychotics were no better than the older drugs in improving quality of life.

The costs associated with treatment over the follow-up period were similar in the two groups. The major cost in both groups was admission to psychiatric hospitals, accounting for 93% of costs among patients taking the older drugs and 82% of the costs among those taking the newer drugs.

The drugs themselves accounted for only 2% of total costs among those taking the older drugs and 4% of costs among those taking the newer drugs.

The researchers concluded that patients have no disadvantage in terms of quality of life, symptoms, or associated costs of care in a year after starting treatment with first generation antipsychotic drugs rather than second generation drugs when treatment is being changed. □

The importance of smelly feet and stinky cheese

Jeanne Lenzer *Boston*

Scientists across the world were honoured last week for addressing such essential questions as how to stop hiccups and how the smell of Limburger cheese and smelly feet can help in the fight against malaria.

The occasion was the annual Ig Nobel awards ceremony at Harvard University, where prizes are awarded for science that "first makes you laugh, then makes you think." Participants were also able to celebrate the fact that one of the organisers, who always sweeps the floors after the event, had been awarded a real Nobel prize last December. Roy Glauber, an 81 year old professor of physics at Harvard, was awarded the prize for his pioneering work in quantum optics.

The Ig Nobel prize for medicine went to Francis Fesmire of the University of Tennessee College of Medicine for finding a unique way to terminate intractable hiccups. Dr Fesmire

found himself at a loss after many attempts to help a patient who couldn't stop hiccuping. Eventually he decided to stick his finger (gloved, he emphasises) up the rectum of his patient (citing vagal stimulation as his goal), and to his delight the patient stopped hiccuping—an event he reported in "Termination of intractable hiccups with digital rectal massage" (*Annals of Emergency Medicine* 1988;17:872).

Bart Knols of Wageningen Agricultural University in the Netherlands and colleagues in Tanzania, Austria, and Italy won the biology prize for finding that the female of the malaria mosquito *Anopheles gambiae* craves equally the smell of stinky feet and Limburger cheese. Dr Knols's "eureka" moment came when he realised that Limburger cheese is cultured with *Brevibacterium epidermidis*, a bacterium found on human skin. This finding has practical applications, said Dr Knols. By using an organism that emits an odour alluring to mosquitoes scientists hope to build traps that will monitor malaria infestation in mosquitoes to aid efforts at extermination. The work of Dr Knols and his colleagues at several other universities will receive an \$8m (£4.3m; €6.3m) grant from the Bill and Melinda Gates Foundation to continue

their work to reduce the spread of malaria in Africa.

Other Ig Nobel prizes this year included the peace prize, which was awarded to Howard Stapleton of Merthyr Tydfil, Wales, for inventing a "teenager repellent." The repellent is an electromechanical machine that emits high frequency shrieking that can be heard by teenagers but not by most adults. The literature prize was awarded to Daniel Oppenheimer of Princeton University for his report "Consequences of erudite vernacular utilized irrespective of necessity: problems with using long words needlessly." Dr Oppenheimer found that when

smart people use big words they do not sound smarter to others; in fact they don't seem as smart as those who use simple, clear language.

The ornithology prize went to Ivan Schwab, an ophthalmologist, who investigated and explained why woodpeckers don't get headaches (*British Journal of Ophthalmology* 2002; 86:843). He found that the North American pileated woodpecker will strike trees at a rate of up to 20 times a second, up to 12 000 times a day, with deceleration forces that in a human would be equivalent to "striking a wall at 16 miles an hour—face first—each time." □

Dr Francis Fesmire won an Ig Nobel prize for his pioneering approach to hiccups