RESEARCH

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RESEARCH NEWS All you need to read in the other general medical journals Alison Tonks, associate editor, *BMJ* atonks@bmj.com

Treating depression after acute coronary syndrome

Depression is common after hospital admission for acute coronary syndrome and international guidelines recommend screening and treatment. A recent trial tested a programme of care that allowed people with depression symptoms to choose between psychotherapy, antidepressant drugs, or a combination of the two. The programme worked well, reducing symptoms significantly more than usual care over six months (an extra 3.5 point drop in Beck depression inventory score, 95% CI −6.1 to −0.7).

All 150 participants had symptoms of depression two to six months after treatment for acute coronary syndrome. Among 73 assigned to the new programme, 41 chose psychotherapy, nine chose drugs, and 17 chose the combination. Their care was organised by a remote team of mental health professionals who met once a week to discuss cases and advise a local doctor or nurse prescriber. A centralised team also provided psychotherapy (problem solving therapy) over the telephone or by video link and followed a stepped care algorithm that intensified treatment every six to eight weeks if required.

This programme contained all the elements known to work from previous trials and introduced the idea that organisation, coordination, and support does not have to be local to be successful, says a linked comment (doi:10.1001/jamainternalmed.2013.925).

JAMA Intern Med 2013;doi:10.1001/jamainternalmed.2013.915

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"Whole mummy" scans confirm ancient atherosclerosis

An international team of researchers has found clear evidence of atherosclerosis among 137 mummies from diverse ancient cultures. Computed tomography showed vascular calcification in 29 of 76 mummies from ancient Egypt, 13 of 51 from ancient Peru, two of five mummies from a Puebloan people who lived in south west America between 1500 BC and AD 1500, and three of five mummies from a population of hunter gatherers who lived more recently on remote islands 500 miles off modern day Alaska.

Overall, a third of the mummies examined had definite or probable atherosclerosis in at least one vascular bed, usually more. Two mummies had disease in all five vascular beds—an ancient Egyptian princess, Ahmose-Meritamun, who died in early middle age, and a slightly older woman from the Aleutian islands who would have been a hunter gatherer eating mainly fish and shell fish.

The researchers and a linked comment agree that atherosclerosis is not as modern as we think it is (doi:10.1016/S0140-6736(13)60639-X). Similar disease was common in geographically and culturally different populations that spanned at least 4000 years of human history.

Lancet 2013; doi:10.1016/S0140-6736(13)60598-X

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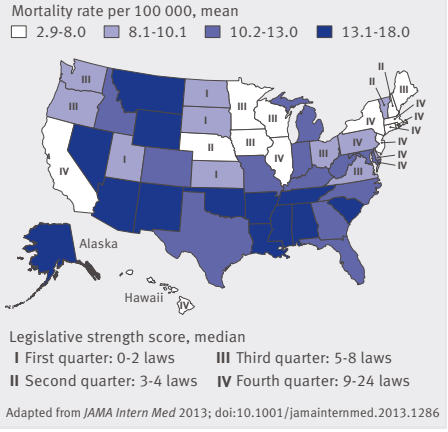
Legislative strength and mortality by state



Adapted from *JAMA Intern Med* 2013; doi:10.1001/jamainternmed.2013.1286

Stronger gun laws, fewer deaths

US states with the strongest gun laws have the lowest rates of death caused by firearms, according to a nationwide cross sectional analysis. The authors ranked 50 states using a score of legislative strength that counted then weighted gun control laws up to a maximum score of 28. States in the highest quarter, such as Massachusetts and Illinois, had 6.6 fewer deaths per 100 000 each year than states in the lowest quarter, such as Louisiana and Utah (incident rate ratio 0.58, 95% CI 0.37 to 0.92). The difference survived multiple adjustments for state demographics, including poverty and population density.

Did gun control save those extra lives? It's impossible to say, says a linked editorial (doi:10.1001/jamainternmed.2013.1292). The systematic and deliberate erosion of funding for research into gun violence has left us without the means to find out. These authors did what they could with the data available, but the data are woefully inadequate in the face of an epidemic of gun violence that has killed more than 300 000 US citizens since 2001 and seems to be intensifying. No more than a handful of researchers are currently working in the field, thanks to a concerted political effort by the National Rifle Association in the early 1990s, says the editorial. Research must resume now, to deepen our understanding of this complex problem and find ways to fix it.

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Six women pilot deep brain stimulation for anorexia nervosa

Six women with intractable and life threatening anorexia nervosa have been treated with deep brain stimulation in a preliminary study from Toronto, Canada. Doctors selected the women for deep brain stimulation after many years of unsuccessful conventional management. They had average body mass indices (BMIs) of 11 to 15 in the years leading up to the study, accompanied by multiple medical complications of chronic starvation. Five had psychiatric comorbidities, most often major depression and obsessive compulsive disorder.

Surgeons placed electrodes just beneath the corpus callosum. One patient had a self limiting panic attack during the local anaesthetic phase of the procedure and one developed a cardiac air embolus that resolved within five minutes after the operating table was repositioned. A third patient had a seizure during device programming two weeks after the procedure. It was switched off then restarted one week later with no further problems.

Three of the six women gained weight during nine months of stimulation (BMIs increased from 11.1 to 21, 14.2 to 16, and 15.1 to 20). They also reported improved quality of life. Symptom scores measuring mood, anxiety, and anorexia nervosa related obsessions and compulsions improved in four patients.

The pilot was designed to assess safety, not effectiveness. The authors judge deep brain stimulation to be safe enough for further evaluation.

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