

SHORT CUTS

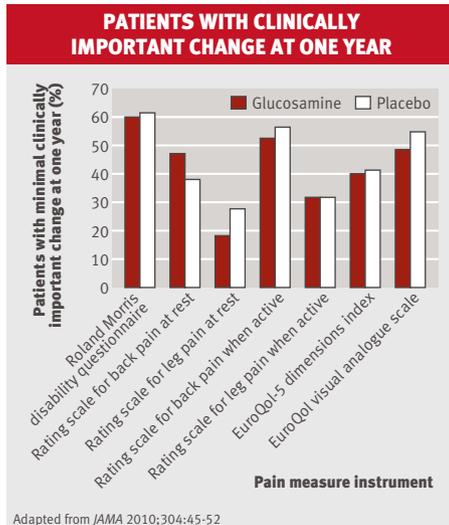
ALL YOU NEED TO READ IN THE OTHER GENERAL JOURNALS

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“Glucosamine is the doctor’s best friend. It doesn’t do anything, but people believe it might, so if you have trouble treating their joint symptoms you can always say: ‘Have you tried glucosamine?’”

Richard Lehman’s journal blog at blogs.bmj.com/bmj/



Glucosamine is ineffective against low back pain

Glucosamine is a popular treatment for osteoarthritis with a patchy evidence base. Researchers from Norway are now fairly sure glucosamine doesn’t work for people with low back pain, after their trial found that the drug had no effect on pain, disability, or quality of life.

Adults with longstanding low back pain and evidence of osteoarthritis on magnetic resonance imaging took glucosamine or a placebo for six months. Both groups felt better at the end of treatment and six months later, with matching scores measuring pain related disability and quality of life. A similar proportion of both groups used other treatments such as sessions with a chiropractor, physiotherapy, or analgesic drugs.

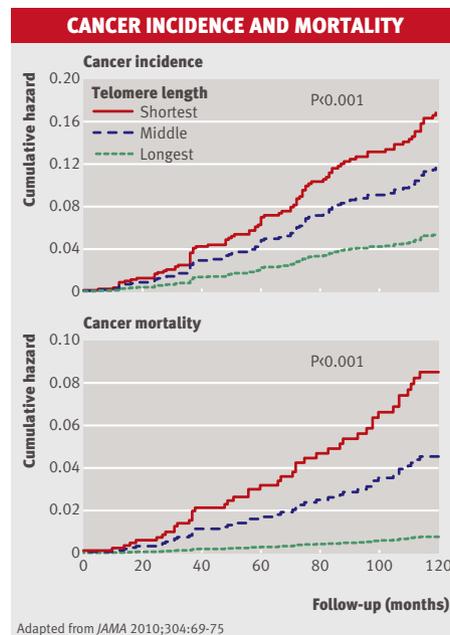
The trial was powerful enough to be convincing, say the authors. Glucosamine didn’t work for this population of Norwegian adults, and doctors probably shouldn’t prescribe it. Their 250 participants had a mean age close to 50 and a mean body mass index of 25.4. Three quarters had had low back pain for at least four years, although most were still in work.

JAMA 2010;304:45-52

Short telomeres suggest higher cancer risk

The nucleoprotein ends of chromosomes, known as telomeres, shorten with each cell cycle, and this provides a measure of biological age similar to the rings on a tree trunk. As telomeres

shorten, chromosomes become more unstable, and there is some evidence that short telomeres are associated with the development and spread of cancers. Researchers recently explored this theory in a prospective cohort of Italian adults who have been tracked since 1995. Adults with the shortest telomeres at baseline had the highest risk of cancer over 10 years (hazard ratio per 1 SD decrease in log_e transformed telomere length, 1.60, 95% CI 1.30 to 1.98) and the highest risk of death from cancer (2.13, 1.58 to 2.86). The researchers measured telomere length in white blood cells. The association with cancer was independent of other risk factors, including chronological age, and it seemed strongest for cancers with a poor prognosis, such as stomach and lung cancer.



These findings in a prospective cohort of unselected adults underpin other strands of evidence from retrospective studies, genomic studies, and animals, say the authors. Most results point in the same direction: a link between telomere shortening and cancer is biologically plausible and likely to be real. The researchers even found a “dose-response” effect—the incidences of cancer among adults in the longest, middle, and shortest thirds for telomere length were 5.1 (2.9 to 8.7) per 1000 person years, 14.2 (10.0 to 20.1) per 1000 person years, and 22.5 (16.9 to 29.9) per 1000 person years.

JAMA 2010;304:69-75

Older men need safe sex counselling too

Middle aged and older men who use drugs for erectile dysfunction have more sexually transmitted diseases than men who don’t use these drugs, according to a study of medical insurance claims from the US. Users had nearly three times the odds of a sexually transmitted disease compared with non-users in the year before (adjusted odds ratio 2.80, 95% CI 2.10 to 3.75) and in the year after (2.65, 1.84 to 3.81) their first prescription for sildenafil, vardenafil, or tadalafil. The difference was most marked for HIV infections.

Because rates of infection did not go up after the first prescription, the most likely explanation is that men who use drugs for erectile dysfunction come from a population with riskier sex lives than those who don’t, say the authors. A prescription for sildenafil, for example, may not encourage risky sex directly, but it could act as a marker. Doctors writing the prescriptions should use the opportunity to counsel older men about safe sex. We already know that middle aged and older men are much less likely to use condoms than younger men, and they are much less likely to be tested for HIV.

These authors had claims data for nearly 1.5 million men employed and insured by 44 big US companies between 1997 and 2006. By the end of the study, 3.6% of the cohort used sildenafil, 1.0% used vardenafil, and 1.7% used tadalafil. This study couldn’t capture drugs bought online or from other sources outside official health plans.

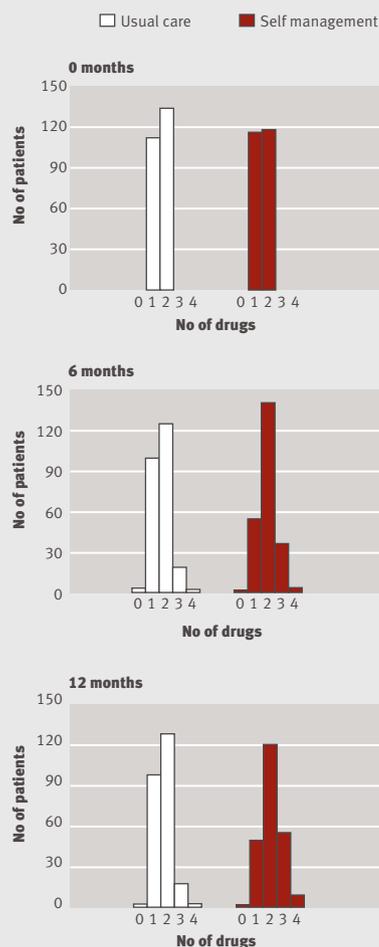
Ann Intern Med 2010;153:1-7

“Do it yourself” management of hypertension can work for motivated patients

Many people with asthma or diabetes already monitor and manage their own treatment. Self management of uncomplicated hypertension is also possible, and it worked well for primary care patients in the UK who volunteered for a randomised trial.

The 527 adults had poorly controlled hypertension despite treatment with one or two recommended drugs. Half were trained to monitor blood pressure with an automated device and make changes to treatment guided by a simple titra-

NUMBER OF DRUGS PRESCRIBED IN EACH GROUP



Adapted from *Lancet* 2010; doi: 10.1016/S0140-6736(10)60964-6

tion plan agreed in advance with their primary care doctor. Basic telemonitoring (a monthly summary of home readings sent to participating practices) ensured compliance within upper and lower safety limits for blood pressure.

Self management controlled systolic blood pressure better than usual care for at least one year (17.6 mm Hg decrease *v* 12.2 mm Hg decrease; difference 5.4 mm Hg, 95% CI 2.4 to 8.8; $P=0.0004$). The authors estimate this magnitude of improvement would reduce the incidence of stroke by around 20%.

A quarter of self managing patients had at least one reading outside the study's safety limits, but only 4% (9/234) failed to seek medical help, which triggered a phone call from the research team. They took more drugs than controls by the end of the study and 70% (148/210) made at least one change to their treatment. The intervention group reported more leg swelling than the control group, probably because they took more calcium antagonists.

Lancet 2010; doi:10.1016/S0140-6736(10)60964-6

Symptomatic malaria clusters in mobile "hot spots"

Malarial disease tends to cluster in "hot spots" even in endemic areas, and it makes sense to focus control efforts on these small areas of intense infection and transmission. Researchers studying an endemic area on the coast of Kenya found two different kinds of "hot spot"—one characterised by febrile infections in children, and the other by asymptomatic parasitaemia. The asymptomatic hotspots tended to be stable. But hotspots of febrile malaria moved around between different groups of homesteads, rarely staying in the same place for more than three years. Moving hotspots affect people with little previous exposure and relatively low immunity, which could account for the high rate of symptoms, say the authors.

The researchers looked for patterns of malaria in 12 years of surveillance data from three geographically distinct groups of homesteads in Kilifi. They analysed yearly serology and blood microscopy from adults and children living in 256 homesteads, as well as blood films from all children in these cohorts who developed a fever during the study.

Sensors on board NASA satellites measuring ground surface temperature and vegetation density were better at predicting stable than unstable clusters of malaria. Control measures should target both, suggest the researchers. Controlling stable hot spots would reduce transmission and controlling unstable hotspots would reduce the burden of malarial symptoms in communities. Both types of hotspot in Kilifi measured around 1 km across.

PLoS Med 2010; doi:10.1371/journal.pmed.1000304

Weight loss may improve hot flushes

Menopausal women who are overweight or obese tend to report more hot flushes than other menopausal women. Could a weight loss programme reduce their symptoms? No randomised trials have looked at hot flushes directly, so researchers used the next best source of data—a completed randomised trial of weight loss for something else (in this case urinary incontinence).

Women in the trial had answered questions about hot flushes at baseline and six months later. Researchers included in their analysis the 154 women (about half) who were bothered by hot flushes when recruited. They found a significant association between participation in an intensive weight loss programme and an improvement in symptoms (odds ratio for clinically meaningful reduction in hot flushes 2.25

relative to controls, 95% CI 1.20 to 4.21).

The link between the programme and fewer hot flushes was partly but not completely explained by weight loss and its associated metrics body mass index and abdominal circumference. Among those women with hot flushes at baseline, each 5 kg reduction in weight increased the odds of an improvement by around 30% (odds ratio 1.32; 95% CI 1.08 to 1.61).

A retrospective look at data collected for another purpose is rarely the final word—for example, this trial used a relatively crude and subjective measure of hot flushes. Because the women knew which arm of the trial they were in, bias can't be ruled out, say the researchers. Women should probably be alerted to the possible benefits of weight loss, however, while confirmatory studies are done.

Arch Intern Med 2010;170:1161-7

Vitamin D again

Researchers recently added serious cognitive decline to the long list of conditions already associated with low serum concentrations of vitamin D. In their cohort study, older Italian adults with serum concentrations of 25-hydroxyvitamin D below 25 nmol/l were 60% more likely to experience substantial cognitive decline than those with concentrations above 75 nmol/l (adjusted relative risk 1.60, 95% CI 1.19 to 2.0), during six years of follow-up.

Insufficient vitamin D has also been linked to cancer, vascular disease, infections, autoimmune diseases, osteoporosis, diabetes, and obesity says an editorial (p 1099). How can a single vitamin affect such a diverse list of health problems? It probably doesn't, says the editorial. All these associations come from observational studies that can't fully adjust for the fact that people with poor vitamin D status are often older and sicker. In the latest study, adults in the lowest vitamin D category were older, more likely to be female, less well educated, less mobile, more depressed, and with worse cognitive function at baseline than adults in the highest category. The researchers did multiple adjustments and analyses, but residual confounding remains a worry and it is still too early to recommend widespread vitamin D supplementation in the hope that it might prevent cognitive decline or any other cause of ill health, the editorial says.

The time for observation is over. We must move on and design good prospective trials with non-skeletal outcomes that will help inform the ongoing debate about vitamin D and add some much needed data on possible harms.

Arch Intern Med 2010;170:1135-41

Cite this as: *BMJ* 2010;341:c3690