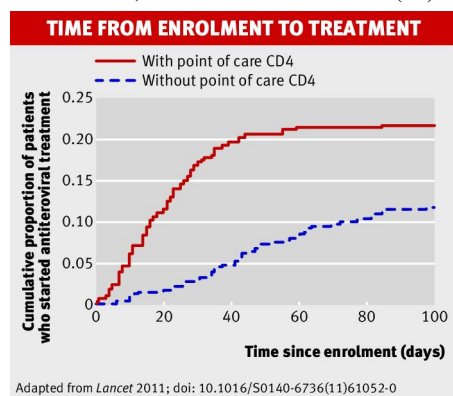


SHORT CUTS

All you need to read in the other general journals

Treatment rates improve after HIV clinics switch to point of care CD4 tests

Lancet 2011; doi:10.1016/S0140-6736(11)61052-0



When four primary care clinics in Mozambique introduced point of care testing for CD4 cell counts, the median delay between HIV diagnosis and antiretroviral treatment fell from 48 days to 20 days, and the proportion of patients who dropped out of care before receiving treatment fell from 64% (314/492) to 33% (142/437) (adjusted odds ratio 0.27, 95% CI 0.21 to 0.36).

Clinics made the switch from off-site laboratory testing to a point of care test in spring 2010, to streamline the complex pathway between diagnosis and treatment. Only a minority of patients in resource poor settings currently make it all the way, and the staging process that determines eligibility for antiretroviral drugs is one of the biggest hurdles, say researchers. An observational analysis comparing patient flow before and after the switch suggests that the new, faster CD 4 cell count helped retain patients in the care pathway. Losses to follow-up between diagnosis and completion of staging fell from 57% (278/492) to 21% (92/437) (0.2, 0.15 to 0.27).

The study included close to 1000 adults and children with a new diagnosis of HIV, split evenly before and after the clinics introduced point of care CD4 tests. Median CD4 cell counts were around 300 per μL in both groups. Just over two thirds of the participants were female, mostly young women.

Plant extract helps smokers in Poland to quit

N Engl J Med 2011;365:1193-200

Cytisine, a plant extract, has been available for decades as an aid to smoking cessation in some eastern European countries. The extract is much cheaper than alternative oral treatments, such as bupropion and varenicline, and a placebo controlled

trial shows it can work. Polish adults who took a 25 day course were significantly more likely to quit for good than controls who took a placebo (abstinence at 12 months: 8.4% (31/370) v 2.4% (9/370); difference 6.0 percentage points, 95% CI 2.7 to 9.2). The authors hope cytosine will prove useful in low and middle income countries, where any smoking cessation treatment typically costs an order of magnitude more than cigarettes. In Russia, a course of cytosine is available over the counter for the equivalent of just \$6 (£3.8; €4.4).

Although adults given cytosine did better than controls, overall success rates were low. Fewer than one in 10 smokers in either group managed to quit for the whole year after treatment, although a few more did manage not to smoke for six months (10% (37/370) v 3.5% (13/370); 6.5 percentage points, 2.9 to 10.1). Extra counselling might help, say the authors. These adults had minimal support from health professionals during or after their treatment. They were long term heavy smokers (mean duration 28 years) who were dependent on nicotine. For most, the trial was their first attempt to quit.

Pressure redistribution mattresses for all residents of long term care homes

Arch Intern Med 2011; doi:10.1001/archinternmed.2011.473

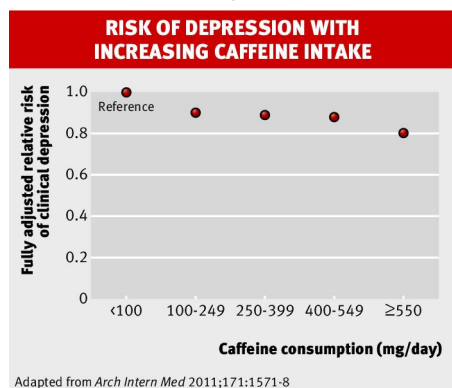
Specialised foam mattresses are the most cost effective way of preventing pressure ulcers in vulnerable residents of care homes, an economic analysis has found. Pressure redistribution mattresses helped prevent ulcers (number needed to treat 45) and saved an estimated \$115 (£73; €84) dollars per resident over a lifetime in this analysis, which modelled the costs and benefits of four prevention strategies in long term residents of care homes in Ontario, Canada.

Replacing soap and water washes with foam cleansing for residents with urinary or fecal incontinence was also cost saving (prevented ulcers with a number needed to treat of 63, while saving an estimated \$179 per resident), although this result was less secure. The authors recommend further evaluation of these cleansers, which include a water repellent barrier designed to protect the skin's barrier function. We also need better data on the effectiveness of emollient skin creams, which looked borderline cost effective with the limited data available.

Oral nutritional supplementation for residents with recent weight loss was the least cost effective strategy for preventing ulcers. This strategy cost an estimated \$7.8 million for every quality adjusted life year gained, although analyses didn't account for other potential benefits of improved nutrition, such as fewer infections.

Coffee drinkers have a lower risk of depression

Arch Intern Med 2011;171:1571-8



Most adults drink coffee because the stimulant caffeine makes them feel more alert, at least for a while. Decades of research have turned up few downsides to a moderate caffeine habit, and some studies have even suggested health benefits, including one analysis from the Nurses' Health Study that reported a lower incidence of depression associated with higher consumption of both coffee and caffeine.

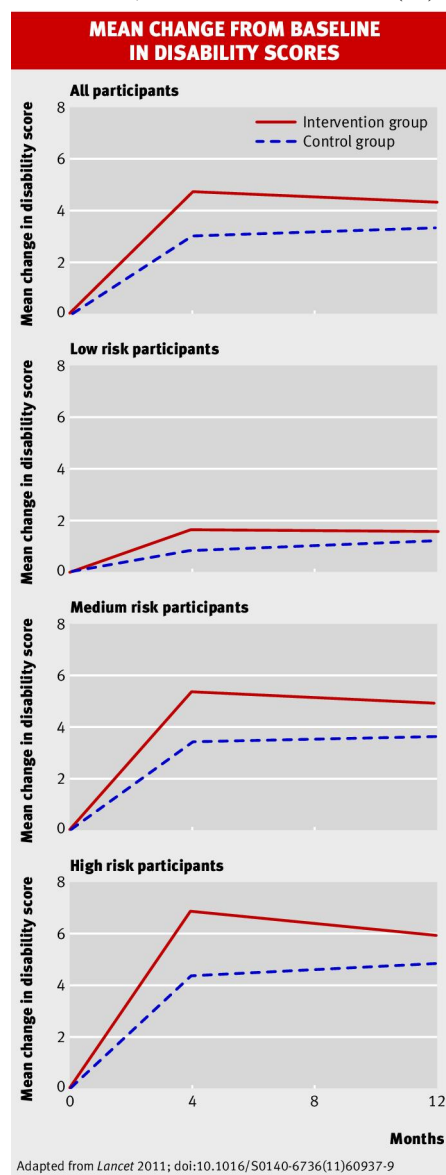
In this long running cohort, US nurses who drank two or more cups of coffee a day were significantly less likely to develop new depression over 10 years than nurses who drank one cup a week or less. Nurses in the top category of caffeine consumption (out of five) were significantly less likely to develop new depression than nurses in the bottom category (relative risk 0.80, 95% CI 0.68 to 0.95).

Fully adjusted analyses followed 50 739 women without depression in 1996 for 10 years; 2607 women developed clinical depression during this time. Participants were in their early 60s at the start of follow-up, and 14 673 reported drinking an average of at least two cups of caffeinated coffee a day.

This is another reassuring study for coffee lovers, says a linked comment (p 1578). Other studies suggest that coffee is not a risk factor for cardiovascular disease, inflammation, or cancer. These authors add the first large scale study that has looked at a mental health outcome, and the news looks good.

Targeted treatment improves disability (slightly) for adults with low back pain

Lancet 2011; doi:10.1016/S0140-6736(11)60937-9



People with non-specific back pain have plenty of treatment options, but they tend to be poorly targeted. So researchers from the UK designed and tested a two stage process to match patients with treatments, starting with a validated screening tool to identify those at high, medium, or low risk of long term disability. Under the new strategy, adults at medium or high risk are all referred for standardised physiotherapy. Adults at high risk have extra psychological support. Those at low risk have a single session with a physiotherapist that includes information, education, and encouragement to return to work.

The strategy seemed to work better than standard best practice in a randomised trial of primary care patients with non-specific back pain. Disability scores improved in both groups over 12 months, but adults who were risk assessed before treatment improved more (mean change 4.3 v 3.3 points on a scale from 0 to 24; difference 1.06, 95% CI 0.25 to 1.86). Their quality of life also improved more than controls', and they took fewer days off work. The new strategy even saved money.

BMJ: first published as 10.1136/bmj.d6311 on 5 October 2011. Downloaded from <http://www.bmj.com/> on 19 April 2024 by guest. Protected by copyright.

Although the overall impact of stratification and treatment looks small, this trial does at least establish the principle that matching patients to treatments in this way is feasible and can work, says a linked comment (doi:10.1016/S0140-6736(11)61033-7). These researchers used the previously validated STarT Back screening tool to stratify patients into risk groups.

Consider day case PCI for older adults having elective procedures

JAMA 2011;306:1461-7

Most older adults stay overnight in hospital after an elective percutaneous coronary intervention (PCI). In one study from the US, just 1.25% of adults over 65 went home the same day (1339/107 018). They were no more likely to be readmitted or to die than those who stayed overnight (adjusted odds ratio 0.95, 95% CI 0.78 to 1.16), and the authors urge hospitals to consider same day discharge more often.

The two groups were well matched for age, sex, and comorbidities. Patients who stayed overnight had slightly (but significantly) more complex pathology, but extensive risk adjustments made no difference to the final result. Five of the 1339 patients discharged the same day died or went back to hospital within two days (0.37%) compared with 528 of the 105 679 patients observed overnight (0.5%).

The authors linked data from a large PCI registry and a national claims database for adults over 65. Participants were treated in more than 900 US hospitals between 2004 and 2008, so they should be representative of the US experience generally. Small trials from outside the US also suggest that day case PCI can be safe for patients having elective procedures, and the overwhelming preference of US hospitals for inpatient PCI

probably has more to do with structural inertia than clinical need, say the authors. Bigger reimbursements for inpatient work may be another contributing factor.

Naproxen and ibuprofen rank highly for cardiovascular safety

PLoS Med 2011; doi:10.1371/journal.pmed.1001098

The cardiovascular risks associated with non-steroidal anti-inflammatory drugs are well known, and researchers are now fine tuning reviews to look more closely at the relative safety of different drugs in this class. The most recent review pooled more than 50 observational studies in almost three million people.

Naproxen had the safest cardiovascular profile among the commonly used agents (relative risk of cardiovascular events 1.09, 95% CI 1.02 to 1.16), with ibuprofen a close second (1.18, 1.11 to 1.25). Rofecoxib (1.45, 1.33 to 1.59) and diclofenac (1.40, 1.27 to 1.55) looked most risky, and cardiovascular risk rose in line with dose for both drugs. Diclofenac seemed to increase cardiovascular risk even at the low doses available without prescription. Regulators might consider taking action, say the authors. Data for celecoxib were inconclusive.

Among the less popular options, etoricoxib, etodolac, and indometacin were top of the risk table. Indometacin is already notorious for gastrointestinal side effects, and it may be time to stop using it altogether, they write.

The risk estimates for different drugs were broadly similar in populations with and without existing cardiovascular disease.

Cite this as: *BMJ* 2011;343:d6311

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