SHORT CUTS

ALL YOU NEED TO READ IN THE OTHER GENERAL JOURNALS

Kristina Fister, associate editor, *BMJ* kfister@bmj.com

"The main reason to drink alcohol is not for the sake of your health but to be happy with others and yourself, and the main reason not to drink too much is not because you damage yourself physically but because you become an incapable bore"
Richard Lehman's journal blog on doc2doc at http://bit.ly/adkbcB

Antiretroviral treatment prevents transmission of HIV-1

Transmission of HIV-1 from mothers to children has become rare in rich countries since the introduction of peripartum antiretroviral treatment. Yet little information, and all of it observational, exists on the potential of antiretroviral drugs to prevent transmission.

A post hoc analysis of trial data now supports the feasibility of using the "treat to prevent" approach to controlling the HIV epidemic. Among 3381 couples discordant for HIV-1 and genital herpes serological status, 349 (10%) of infected participants started using antiretroviral treatment during the two year study period. Among participants not taking antiretrovirals, 102 transmissions occurred over 4558 person years of follow-up, corresponding to a transmission rate of 2.24 (95% CI 1.84 to 2.72) per 100 person years, whereas only one transmission occurred in people who started taking antiretrovirals (transmission rate 0.37, 0.09 to 2.04). The one transmission occurred less than four months after the onset of treatment and probably before complete suppression of HIV-1 in body fluids was achieved. Transmission was most common when CD4 cell counts were low and plasma viral counts were high. These findings are in broad agreement with a study published in the *BMJ* last month (2010;340:c2205).

The commentators (doi:10.1016/S0140-6736(10)60838-0) say population based trials of test and treat strategies for HIV should not be delayed.

Lancet online 2010; doi:10.1016/S0140-6736(10)60705-2

Stenosis of carotid artery: surgery or stenting?

One of the largest trials to date confirms what guidelines recommend, that surgery should be preferred over stenting in people with symptomatic stenosis of the carotid artery. How best to treat asymptomatic stenoses remains controversial.

In the trial that randomised 2502 patients to carotid endarterectomy or carotid artery stenting, the primary outcome—a composite of periprocedural death, stroke, or myocardial infarction, as well as ipsilateral stroke in the four years after randomisation—did not differ between the groups (6.8% *v* 7.2%, respectively; P=0.51). However, death and stroke were more common in the stenting group, compared with the surgery group, both in the periprocedural period and at four years (periprocedural death 0.7% *v* 0.3%, P=0.18; periprocedural stroke 4.1% *v* 2.3%, P=0.01; death or stroke at four years 6.4% *v* 4.7%, P=0.03).

Periprocedural myocardial infarction favoured stenting over surgery (1.1% *v* 2.3%, P=0.03), but the editorialists (doi:10.1056/NEJMe1005220) argue that periprocedural stroke and myocardial infarction should not be considered equivalent in terms of health implications in the longer term. This is supported by measurements of health status at one year after randomisation: the 36 item short form questionnaire showed impaired health in people who have had periprocedural stroke but not in people with periprocedural myocardial infarction. Still, say the editorialists, individualisation of treatment choices is appropriate.

N Engl J Med 2010; doi:10.1056/NEJMoa0912321

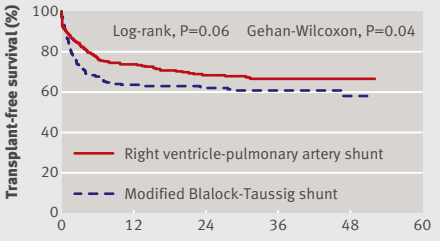
A shunt improves survival for babies with underdeveloped left heart

Babies born with the hypoplastic left heart syndrome have an incompletely developed mitral valve, left ventricle, aortic valve, and ascending aorta. They survive in the womb because the foramen ovale and a dilated ductus arteriosus allow the right heart to take over the function of running the systemic circulation. However, once born, these babies die of right heart failure within days, unless surgery is performed.

The surgical approach to correcting the anomaly comprises three operations. The first operation, the Norwood procedure, is performed immediately after birth and is associated with the highest mortality. The next two operations are performed before 6 months and 4 years of age, respectively.

A randomised trial of 549 infants treated in 15 North American centres compared two types of shunts used as part of the Norwood procedure: the classic—modified Blalock-Taussig shunt—and a newer—right ventricle-pulmonary artery shunt. Transplant-free survival to 12 months after randomisation was better with the newer shunt (74% (202/274) *v* 64% (175/275)). After that, no differences were seen in the primary outcome between the groups. Further unplanned surgical interventions and complications, which were mostly respiratory, neurological, and infectious, were more common with the newer shunt however.

SHUNT TYPE AND TRANSPLANT-FREE SURVIVAL AFTER 12 MONTHS



Adapted from *N Engl J Med* 2010;362:1980-92

The editorialist (p 2026) praises the surgeons and other teams involved in the trial. The goal line keeps moving though—Norwood stage I may soon be replaced with a hybrid procedure that combines surgical and endovascular approaches.

N Engl J Med 2010;362:1980-92

Spin found in more than half of abstract conclusions in reports of negative trials

How often are negative trials made to look positive, and how is this done? A study tried to answer these questions by examining all reports of parallel group trials with non-significant results on primary outcomes, which were published in December of 2006 and indexed in PubMed. In the 72 identified papers, 49 (68%) abstracts and 44 (61%) main texts were found to have at least one distorted presentation or "spin," which was defined as the use of specific reporting strategies, regardless of the motive, with the aim of presenting the experimental treatment as beneficial despite a statistically non-significant difference for the primary outcome, or the aim of distracting the reader from statistically non-significant results.

In 13 articles a spin was found in the title. In abstracts, 27 (38%) results sections and 42 (58%) conclusion sections had at least one spin. In the main texts, this was 21 (29%), 31 (43%), and 36 (50%) for the results, discussion, and conclusions sections, respectively.

The most common strategy of spin was to focus on positive results of analyses other than those for the primary outcome, such as within group comparisons, secondary outcomes, or subgroup analyses. Another strategy was to interpret P>0.05 as showing a similar effect of the studied treatments even though the trial was not designed as an equivalence or non-inferiority study. In some safety trials, non-significant results were wrongly interpreted as showing lack of harm for the experimental treatment.

JAMA 2010;303:2058-64

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