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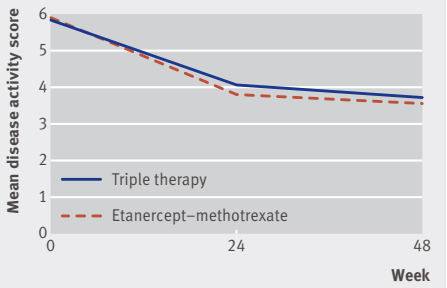
RESEARCH NEWS All you need to read in the other general medical journals Alison Tonks, associate editor, *BMJ* atonks@bmj.com

Change in disease activity according to initial treatment



Adapted from *N Engl J Med* 2013; doi:10.1056/NEJMoa1303006

When methotrexate fails to control rheumatoid arthritis

When methotrexate fails to control rheumatoid arthritis, patients can add other disease modifying drugs or opt for more expensive biological treatments that inhibit tumour necrosis factor. Both worked equally well in a new head to head trial comparing additional sulfasalazine and hydroxychloroquine (triple therapy) with additional etanercept. The trial was double blind and patients were allowed to switch from one treatment strategy to the other if they didn't respond within six months.

A quarter of each group switched. By the end of 48 weeks, those starting with triple therapy had improved by 2.1 points on a score of disease activity running from 2 to 10. Those starting with additional etanercept improved 2.3 points. Joint progression was similar in both groups over 48 weeks. Triple therapy was statistically "non-inferior" to additional etanercept, and the authors suggest that starting with the cheaper option would probably be cost effective for many patients. The overall frequency of serious side effects was similar for both groups. Etanercept was associated with more serious infections (12/219 *v* 4/222).

These new results look convincing but may have come too late to change modern practice, says a linked editorial (doi:10.1056/NEJMe1306381). Biological agents have become a standard second line option when methotrexate fails, and cheaper ones are on the way. Third party payers may simply choose to wait.

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Inhaled saline on demand for babies with bronchiolitis?

A new trial challenges a widespread treatment for infants with bronchiolitis. Inhalations of racemic adrenaline worked no better than inhalations of saline in infants admitted to Norwegian hospitals. Infants given adrenaline were discharged no faster (63.6 *v* 68.1 h; difference 4.5, 95% CI −6.5 to 15.5) and were no less likely to need supplementary oxygen, nasogastric feeding, or ventilator support than controls. Both groups had comparable improvements in clinical scores after their first inhalation. Subgroup analyses hinted at longer admissions for babies under 8 weeks old given racemic adrenaline.

The trial had a factorial design and infants had their inhalations on demand or according to a fixed schedule. Those treated on demand had fewer inhalations overall and went home nearly 14 hours earlier than those treated to a fixed schedule (13.7 h, 95% CI 2.9 to 24.4). They were significantly less likely to need supplementary oxygen or ventilatory support (4% (8/200) *v* 10.8% (22/204); rate ratio 0.37, 0.17 to 0.81).

The trial was smaller than planned, but the authors are confident that they had enough power to rule out a clinically meaningful difference between inhaled adrenaline and saline, except possibly in the youngest babies. Treatment on demand looked superior to fixed schedules in this first head to head comparison. Respiratory syncytial virus was the most common cause of bronchiolitis in the 123 children who were tested (80.5%, 99/123).

N Engl J Med 2013;368:2286-93

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Tenofovir helps prevent HIV in drug users

A team of researchers from Thailand and the US has shown for the first time that tenofovir can help prevent HIV in injecting drug users. Daily prophylaxis cut incidence by about half in a placebo controlled trial of 2413 drug users attending treatment clinics in Bangkok (0.35 *v* 0.68 per 100 person years; reduction 48.9%, 95% CI 9.6% to 72.2%). All participants received a package of prevention measures including counselling, condoms, methadone options, and regular HIV tests. The protective effect of tenofovir took three years to emerge, a result the authors found hard to explain. Rates of infection were lower than expected.

The trial was independently funded. It fills an important gap in the evidence for pre-exposure prophylaxis against HIV, says a linked comment (doi:10.1016/S0140-6736(13)61140-X). We know antiretroviral drugs help reduce sexual transmission of HIV and transmission from mother to child. Public health authorities can now add drug users to the list of potential beneficiaries and think about adding pre-exposure prophylaxis to other strategies that are known to work, such as needle exchange programmes.

Did daily tenofovir prevent parenteral transmission of HIV? Possibly, says the comment. But it's hard to say how much. Treatment may have reduced sexual transmission in drug users too.

Lancet 2013; doi:10.1016/S0140-6736(13)61127-7

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Domestic violence is common among women in fracture clinics

Women attending fracture clinics report a high prevalence of domestic violence. In the latest survey from clinics on three continents, one in six women had experienced domestic violence in the past year (16.0% (455/2839), 95% CI 14.7% to 17.4%) and one in three had experienced physical, emotional, or sexual abuse in their lifetime (34.6%, 32.8% to 36.5%). One in 50 of the women screened had injuries caused by their partner. Researchers surveyed women attending clinics in Canada, the US, the Netherlands, Denmark, and India. The overall response rate was 85%.

Violence by intimate partners is the single leading cause of non-fatal injury to women worldwide, they write. Health professionals in fracture clinics, including orthopaedic surgeons, are well placed to identify the problem and refer affected women to services that provide help and support. Some international guidelines already recommend screening in this setting, but action is lagging behind the evidence. In this study, only seven of the 49 women injured by their partners had ever been asked about domestic violence by a health professional (14%).

Lancet 2013; doi:10.1016/S0140-6736(13)61205-2

Cite this as: *BMJ* 2013;346:f3847