MY EXPERIENCE OF MAGPIE

'I was really pleased to be part of such an important trial. I developed swelling at 32 weeks which grew progressively more severe until I was finally diagnosed with pre-eclampsia and admitted to hospital at 38 weeks. My baby was delivered by caesarean section and thankfully we both made a complete recovery. Pre-eclampsia is a frightening condition and I really hope the results of the trial will benefit women like me.' Clair Giles, Magpie participant.

MRC News Release. Magnesium sulphate halves risk of eclampsia and can save lives of pregnant women. London: MRC, 31 May 2002.

major achievement, involving more than 10,000 pregnant women with pre-eclampsia in 33 countries around the globe. In addition to normal medical care, half the women received an injection of magnesium sulphate and half a placebo (sham preparation). Magpie gave clear and convincing results. It showed that magnesium sulphate more than halved the chance of convulsions occurring. In addition, although the treatment did not apparently reduce the baby's risk of death, there was evidence that it could reduce the risk of the mother dying. And apart from minor side-effects, magnesium sulphate did not appear to harm the mother or the baby.[4, 5]

HIV infection in children

The results of good research are also making a real difference to children infected with HIV (human immunodeficiency virus), the cause of AIDS. At the end of 2009, figures from UNAIDS (the joint United Nations Programme on HIV/AIDS) show that an estimated 2.5 million children were living with HIV around the world, 2.3 million of them in sub-Saharan Africa. Every hour, around 30 children were dying as a result of AIDS.[6] Bacterial infections, such as pneumonia, which are associated with the children's weakened immune system, are a common cause of death. Co-trimoxazole is a widely available, low-cost antibiotic

that has been used for many years to treat children and adults with chest infections unrelated to AIDS. Studies in adults with HIV additionally showed that the drug reduces other complications from bacterial infections.[7]

When preliminary evidence showed that the infections in children with HIV might also be reduced, a group of British researchers got together with colleagues in Zambia to assess the effects of co-trimoxazole as a possible preventive medicine in a large study. The trial, which started in 2001 and lasted about two years, compared the antibiotic with a placebo in over 500 children. The results became clear sooner than anticipated when it was shown that the drug cut AIDS-related deaths by 43% (74 deaths in the co-trimoxazole group compared with 112 in the placebo group) and also reduced the need for hospital admissions. At this point the independent committee scrutinizing the results recommended that the trial be stopped.

One immediate outcome was that all children in the trial were given co-trimoxazole as part of a Zambian government initiative. A wider consequence was that the World Health Organization and UNICEF promptly altered their advice on medicines for children with HIV.[8, 9]

These organizations continue to recommend co-trimoxazole as an inexpensive, life-saving and safe treatment for such children.[10]

BAD RESEARCH

Psychiatric disorders

Regrettably, research is not always well done or relevant. Take the example of a distressing condition known as tardive dyskinesia. This is a serious side-effect associated with long-term use of drugs called neuroleptics (antipsychotics), which are prescribed for psychiatric disorders, especially schizophrenia. The most prominent features of tardive dyskinesia are repetitive, involuntary movements of the mouth and face – grimacing, lip-smacking, frequent poking out of the tongue, and puckering or blowing out of the cheeks. Sometimes these are accompanied by twitching of the hands and feet. One in five patients taking a neuroleptic for more than three months experiences these side-effects.