BMJ

SATURDAY 17 JULY 1993

BRITISH MEDICAL JOURNAL NO 6897 VOLUME 307 INTERNATIONAL

BRITISH MEDICAL ASSOCIATION TAVISTOCK SQUARE LONDON WC1H 9JR WEEKLY ISSN 0959-8146 ASTM CODEN: BMJOAE 307 (6897) 143-212 (1993)

CONTENTS *pages 196-212*

BMJ

Editor's Choice

US second class postage paid at Rahway, NJ. Postmaster: send address changes to: BMJ, c/o Mercury Airfreight International Ltd Inc, 2323 Randolph Avenue, Avenel, NJ 07001, USA.
US (direct) subscription $250.00.

Published by the proprietors, the British Medical Association, Tavistock Square, London WC1H 9JR. Printed by BPCC Magazines (Milton Keynes) Ltd, Milton Keynes. Typesetting by Bedford Typesetters Ltd, Bedford. Registered as a newspaper.

Short term benefit, long term risk

One of the difficulties of medicine is that an intervention that causes short term benefit might cause long term harm. One example of such an intervention is stilboestrol, used to treat recurrent abortion (although never proved effective in controlled trials) but later found to cause genital cancer in daughters of women given the drug. Two papers in this week's journal search for long term side effects of beneficial interventions.

The possibility of long term harm is particularly worrying when a treatment or procedure is used in people who are in full health, and doctors have been worried about the possible side effects of ultrasound ever since it began to be widely used in pregnant women. Experimental studies in vitro have shown some effects on cells, but long term follow up studies have reassuringly found no problems in children exposed to ultrasound in the womb. The Norwegian group that did one of the first randomised trials of ultrasound in pregnancy reports today, however, that children exposed to ultrasound are significantly less likely than children not exposed to be right handed (p 159). This effect may result from chance, but, the authors write, it may be "a sensitive index of subtle changes in the development of the brain." Follow up of children from other randomised trials should help clarify the issue.

Doctors treating children with cancer cannot spend much time worrying about long term side effects because the children will die if not adequately treated. But now that most children survive cancer there are real worries that the powerful treatments may cause second cancers and possibly congenital abnormalities in the children of survivors. Various small studies have suggested that there is no increase in congenital abnormalities among the children of survivors, and now a large Canadian study confirms this (p 164).

Understanding the balance between benefit and harm of various interventions depends on understanding risk, and many people—including those who place bets with great care—have a poor understanding of risk. A study of 20 women who contacted a support agency because of anxieties after a screening test for Down's syndrome illustrates the poor understanding—among both patients and staff (p 174). The notion of false positive results is particularly difficult for many people.

One circumstance that makes risk particularly hard to understand is when a coincidence that seems impossibly unlikely actually happens. On p 176 William Alexander tells the story of a man he treated for a dissecting aortic aneurysm. He survived many years with conservative treatment until he collapsed and died when he heard that his 22 year old son had died suddenly. Both, necropsy showed, had died from dissecting aneurysms.

Finally, any readers who tire of obituaries (and there aren't many) should take heart from Jim Drife's references to the obituaries of Lord Lister (p 207). His obituary in the *BMJ* ran to six pages (the first edged in black), and the eight page obituary in the *Lancet* was accompanied by an editorial that began, "Full of years and honours, the greatest Englishman of the nineteenth century has gone to his rest." Jim thinks that only a manager would be likely to get such attention in the modern world.