measure Riker 3M have now restricted this approval to patients with "life-threatening" arrhythmias only. There is no reason, however, why the original indications should be changed as a result of the trial; the relative risks and benefits of these and other antiarrhythmic drugs are not known in populations other than those studied in CAST. The manufacturers of encainide and flecainide might possibly discontinue production of the drugs as a result of this trial. This would be regrettable: these drugs provide the only effective treatment available for many patients with highly symptomatic or life threatening arrhythmias. Indeed, withdrawing treatment with the two drugs may already have led to the death of several patients.[8]

The study has more general implications for the management of patients with arrhythmias. It has highlighted the risks associated with antiarrhythmic drugs in patients known to have had infarcts, and these risks may well apply to other antiarrhythmic drugs and to other forms of treatment. As a result of the trial non-pharmacological treatments for arrhythmias (such as antitachycardia pacemakers and catheter ablation) seem likely to be considered more readily, though these strategies, too, carry some risk.

The findings of the trial also have important implications for the design of future drug trials. Until now all trials of antiarrhythmic agents have been designed to compare efficacy with a placebo or another drug. In future, mortality should be given greater emphasis as a principal end point. This is not to say that the CAST study should be repeated with different drugs. The chances of showing overall benefit in terms of mortality are low in patients of this kind, and it would be unethical to treat patients without symptoms with the sole purpose of assessing the lethal potential of other agents. Patients with junctional arrhythmias are at even lower risk,[9] and impossibly large numbers of patients would have to be enrolled to show any effect on mortality. One reasonable conclusion is that the monitoring of new antiarrhythmic agents in patients in this category should continue for longer periods after marketing to establish data on safety. In addition, "mortality trials" might be designed in patients known to be at a high risk of death, such as those with inducible or spontaneous sustained ventricular arrhythmias after myocardial infarction. Such trials should be performed in patients already fitted with implantable defibrillators so that otherwise life threatening arrhythmias could be identified and terminated. In this way the lethal potential of placebo or active drug could be investigated without loss of life.

The Cardiac Arrhythmia Suppression Trial is the first large long term trial that has attempted to assess whether antiarrhythmic drugs can reduce the risk of sudden death after myocardial infarction. It has highlighted the potential for harm associated with these agents; it has also raised many important questions about the development, assessment, and place of antiarrhythmic treatment.

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Mothers with HIV

Risks to baby need to be balanced against benefits of breast feeding

In New York last year AIDS was the most common cause of death in women aged between 25 and 35 (C Hankins, fifth international conference on AIDS, Montreal, 1989). In some parts of Rwanda as many as 30% of women aged between 26 and 40 are infected with HIV.[1] In Britain, by contrast, very few women are infected, but the number is growing and will determine the future incidence of paediatric cases.[2] About a third of infants born to infected women are themselves infected; it has been estimated that by 1991 world wide most new cases of AIDS will be in children (J Chin, fifth international conference on AIDS, Montreal, 1989).

Most of the transmission from mother to child seems to occur in utero.[3] But even a small risk of transmission by another route may be important in terms of absolute numbers. The main problem in estimating this risk comes from the current inability to determine whether a fetus is already infected at birth.[3]

The contribution of breast feeding to neonatal infection is, therefore, hard to measure. HIV has been isolated from breast milk,[4] and several cases of infection attributed to breast feeding have been reported.[5,6] In a series of 16 Zambian mothers who seroconverted after delivery three of their babies became infected, presumably through breast feeding (S Hira *et al*, fifth international conference on AIDS, Montreal, 1989). In all these reports the mothers had had negative test results for HIV at delivery and probably became infected later. The likelihood of transmission shortly after infection may be especially high because there is a peak of viraemia at this time. The infectivity of breast milk may, therefore, depend partly on the mother's stage of infection.

Most mothers with HIV infection are, however, already infected at the time of delivery. Their risk of subsequently transmitting HIV in breast milk is less easy to assess. Several studies have compared the prevalence of HIV infection in breast fed versus non-breast fed infants, finding little or no difference between the two groups (C Hutto *et al*, fifth international conference on AIDS, Montreal, 1989).[7] One explanation of this is that a woman who does not transmit HIV in utero has a low infectivity and is also unlikely to transmit HIV in her milk.

In Britain a recent letter from the chief medical officer has advised against breast feeding for HIV positive women.[8] It gave no specific advice (beyond suggesting follow up counselling and testing) for women who were HIV negative but at risk. Yet these may be the group most likely to transmit HIV through breast feeding.

Where wet nurses are used there is another problem. HIV has been passed not only from a wet nurse to a child but also in the opposite direction.[6] In the Soviet Union seven breast feeding mothers seroconverted after their babies had been infected through reuse of injection equipment. All seven babies had stomatitis and bleeding gums (V V Pokrovsky, E U Eramova, fifth international conference on AIDS, Montreal, 1989). As more mothers die and more babies receive infected transfusions, transmission to and from wet nurses may become important in the spread of HIV, especially in developing countries.

Given that the risk of transmission through breast milk seems highest for babies whose mothers seroconvert after delivery, the small additional risk for the baby born to a mother with established HIV infection may be outweighed by the benefits of breast feeding. This is especially true in developing countries, where maternal antibodies are important in preventing neonatal infections.

It must be the mother's decision whether or not to breast feed. The doctor's responsibility is to explain as fully as possible the current medical evidence and to discuss it in relation to each woman's social and medical circumstances.

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Self assessment and medical audit: an educational approach

Lessons from the Wessex course for trainers

The concept of medical audit has acquired two quite different interpretations. In one it is seen as the collection of numerical clinical data for evaluation through peer review against a background of predetermined criteria.[1-3] The other—supported by the General Medical Council—takes a more educational approach and emphasises the assessment by individual doctors of their own clinical practice.[4,5] I want to support this second view. At its heart audit should be concerned with taking note of what we do, learning from it, and changing if necessary. Fundamentally, it is educational. Self assessment is crucial to effective audit, but I suggest that it will not occur automatically through peer review alone.

People learn best when they are helped to define their own problems, acknowledge and accept their strengths and weaknesses, decide on a course of action, and evaluate the consequences of their decisions.[6] Such self evaluation is at the heart of education.[7] It does not, however, mean using self administered tests to determine knowledge and skills; what it does mean is helping people to judge their own performance. In reality much medical education is still off target[8]; many doctors report that their assessment as students was highly threatening and often humiliating. The danger with peer review is that either it will become collusive or it will be avoided altogether. A recent conference was told that at audits junior doctors often remain silent and some request audit sessions separate from their consultant colleagues (Association for the Study of Medical Education conference on medical audit, May 1989).

Thus for audit to become educational both insight and self esteem must be developed. This will require open relationships to be fostered among the participants.[9] The process has been developed in the Wessex region's course for general practice "training the trainers," which has evolved an approach to audit by emphasising self assessment through peer review. It is based on the educational principles that should (but often do not) lie at the heart of medical audit:

- Firstly, a clinician presents to a group of about half a dozen colleagues a video of a recent consultation with a patient; thus some "practice" is presented for critical reflection
- Immediately, people declare their feelings (positive and negative) about the consultation, and they must be permitted to express and "own" their emotions
- The good points concerning the consultation are listed, as are those that did not go so well, and the rules of constructive feedback are obeyed
- The presenter gives his views and opinions before those of his colleagues and records these for all to see for further discussion: the approach is learner centred yet public
- The group facilitates this process in a supportive, collaborative, and cooperative yet critical atmosphere
- Next the presenter identifies his "wants," including what he now sees himself as wanting to know, to know about, or to do differently regarding the consultation, thus stating his own learning objectives
- Group members declare what they see as the presenter's "needs," that is, anything the presenter did not identify as his "wants," thus additional learning objectives are set by peers
- The presenter is encouraged to discuss any differences between these wants and needs and to negotiate priorities and deal with them in some appropriate way, not necessarily there and then—a process that might include gathering further numerical data in a wider survey
- Finally, the presenter and then the group declare what has (and what should have) been learnt in this exercise, what still