

resulting in a number of unnecessary caesarean sections, but in the light of current knowledge it would be unethical to do otherwise.

The possibility of an association between herpes simplex virus 2 and cervical neoplasia has been the subject of controversy for nearly two decades. Evidence for the association comes from several sources. Firstly, several members of the herpes virus group are potentially oncogenic, the best example being the association of the Epstein-Barr virus with Burkitt's lymphoma<sup>16</sup> and nasopharyngeal carcinoma.<sup>17</sup> Secondly, several studies have shown a correlation between the presence of antibodies to herpes simplex virus 2 and carcinoma of the cervix<sup>18-20</sup>; nevertheless, such antibodies may just be an indicator of greater promiscuity among such women. Finally, a growing body of in vitro evidence suggests the potential oncogenic nature of herpes simplex virus 2.<sup>21 22</sup> The exact role of this virus in carcinoma of the cervix, however, remains to be verified, and the relation is not fully established or proved. While doubt exists, caution is advocated and patients who have suffered genital herpes should have cytological examinations performed initially and then at yearly intervals. Once again the media has failed to make it clear that the link between infection with herpes simplex virus 2 and cervical neoplasia is not fully established, that other, equally important aetiological factors such as age at first intercourse are implicated in this type of cancer, and that the problem can be detected early if the strategy for cytological testing outlined above is followed.

A disease that is usually sexually acquired and recurrent is bound to create feelings of guilt and anxiety among some sufferers—an aspect of the infection too often neglected by the medical profession. These problems can be dealt with and should not be the death knell of an individual's sex life. The Herpes Association was recently founded in an attempt to help patients come to terms with their disease, and to put it in perspective, and to realise that they can "survive" herpes.

The media has a responsibility towards its readers when dealing with health matters and must be adjudged irresponsible if it creates unnecessary anxiety, fails to give a balanced picture of a disease, and, in particular, does not outline the advances that are being made in prevention, treatment, and self help for the support of patients. All of these advances now mean that the future for sufferers from herpes seems more hopeful.

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## Deaths in the first 10 minutes

Despite the British Medical Association's success in persuading Parliament to introduce the compulsory wearing of seat belts and the benefits in reducing both the number and the severity of injuries that this will bring, road traffic accidents continue to be of great concern. Thus the debate will continue on the role of medical "flying squads," of paramedics, and of bystanders at the scene of the accident. In such discussions statistics are of paramount importance, and a recent survey from Middlesbrough by Eugene Hoffman has shown that of 344 deaths no fewer than 172 occurred at the scene of the accident, 168 of them within the first 10 minutes before the emergency services arrived.<sup>1</sup> Comparable studies by Spelman *et al* and by Gögler have shown similar figures for the United States and West Germany, respectively.<sup>2 3</sup>

The two main types of effort to improve the management of casualties at the site of the accident have been the development of doctor based immediate care schemes pioneered by Dr Kenneth Easton in Cleveland and training paramedics in the ambulance service and elsewhere, developed by Dr Peter Baskett in Bristol.<sup>4 5</sup> We now know that mobile teams dealing with only one type of emergency, whether trauma or myocardial infarction, are uneconomic. Such schemes should be geared to caring for all patients who are seriously injured or taken suddenly ill. Thus the team in the Bristol scheme receives 10 to 12 calls a week, finding them evenly distributed between accidents and medical or surgical emergencies.<sup>6</sup> A reasonable conclusion would be that such resuscitation teams based on district general hospitals should be available at very short notice at the request of the emergency services.

Hoffman makes a convincing case that knowledgeable bystanders are most likely to save the lives of some unconscious casualties at the site of the accident both by correct positioning and by preventing obstruction of the upper airway or to inhalation. The voluntary organisations, such as the St John Ambulance Brigade and the Red Cross, have had a long established role in training the public in first aid, both with full first aid courses leading to the issue of a certificate and with two hour courses in emergency aid concentrating on cardiopulmonary resuscitation. A more recent development by the St John Ambulance Brigade has been teaching first aid to schoolchildren attending Butlin's Youth Adventure Weeks, no fewer than 28 000 children being given tuition in a single year. Baskett confirmed this, especially the crucial part that the public can play if cardiopulmonary resuscitation is to realise its full lifesaving potential—a principle supported by Sloman, who, describing an integrated paramedic service and hospital support in Melbourne, Australia, found that help from the bystanders was essential for success. Of 85 patients given cardiopulmonary resuscitation by members of the public, 22 survived to leave hospital; but of 83 who were not given such resuscitation, none survived to leave hospital.

In the Middlesbrough survey Hoffman found that bystanders gave first aid in four fifths of the cases and the police in a quarter before the ambulance arrived. (Police are, of course, taught first aid during their basic training and in refresher courses.) Ambulance men were usually the first to give expert aid and carried out their duties effectively, particularly in towns such as Brighton, which has introduced advanced training for them.<sup>7</sup> Nevertheless, some are opposed to specialised training programmes that will of necessity lead to a two tier ambulance service, and this attitude has also been reflected in the St John Ambulance Brigade, though the attitude in their recent *Public Duty Handbook* may well herald a change of heart.<sup>8</sup>

The important educational role of the media should not be forgotten. In the United States public interest in resuscitation was aroused by television programmes featuring the emergency treatment of heart attacks, and some 20 million people attended classes on cardiopulmonary resuscitation.<sup>9</sup> In Britain recent motoring magazine programmes have shown useful items on first aid, notably BBC2's *Top Gear*, and it seems likely that this will further kindle interest in first aid in this country. Another stimulus is likely to be the recently established Community Resuscitation Council set up by the professional organisations engaged in the treatment of medical and surgical emergencies. As Hoffman points out, in any road accident the first person on the scene is likely to be other drivers, and these should be singled out for training. The inclusion of a section on first aid in the latest edition of the *Highway Code*<sup>10</sup> in Britain is a welcome addition, but questions on this topic should be included when taking a driving test. In some countries—for example, West Germany and Australia—an examination in first aid is already obligatory for obtaining a driving licence.

In Norway instruction in resuscitation in schools has been compulsory since 1961. In Britain, on the other hand, road safety and first aid are not in the curriculum, and the decision to include them lies with local education authorities and individual schools. Yet the Butlin's experience by the St John Ambulance Brigade would appear to show that, given the chance, many children would elect to learn these skills. Certainly the cadet movements of both the Red Cross and the St John Ambulance Brigade, together with the scouting and guide movements, have brought first aid instruction to tens

of thousands of children. Nevertheless, pressure from the Department of Education to teach these subjects in all schools would undoubtedly be beneficial and might whet the appetite of many to join the voluntary organisations and learn more.

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## Congenital complete heart block

When complete atrioventricular dissociation with a slow ventricular rate is known to have been present from an early age the diagnosis made is congenital complete heart block.<sup>1</sup> Postinfective or postsurgical causes should have been excluded. The condition is much rarer than acquired heart block, with an incidence of one in 15 000 to 20 000 live births,<sup>2,3</sup> and it accounts for one in 200 referrals to paediatric cardiology centres.<sup>4,5</sup> Congenital complete heart block is associated with other congenital heart disease in up to one third of cases,<sup>2</sup> particularly (corrected) L transposition of the great arteries.<sup>5</sup>

In isolated congenital heart block the usual histological findings are fibrosis in the atrial septum above the atrioventricular node or interruption of the bundle of His or its branches.<sup>6</sup> The functional site of block, determined clinically by His bundle electrocardiography, is proximal to the bundle in two thirds or more of recordings.<sup>7,8</sup>

Considerable interest has been shown in the association between isolated congenital heart block and disease of the maternal connective tissue, particularly systemic lupus erythematosus. In a multicentre survey of 425 cases of congenital heart block Esscher<sup>9</sup> found 64 mothers with active or latent lupus erythematosus, rheumatoid arthritis, connective tissue diseases, or abnormalities on serological testing. In a recent study presented to the British Cardiac Society the IgG antibody anti-Ro(SSA) was present transiently in the serum of neonates with congenital heart block and in many of their mothers.<sup>10</sup> It seems likely that anti-Ro or some other maternal IgG antibody crossing the placenta is an aetiological agent in many cases of congenital heart block.

Congenital heart block may be diagnosed in utero, in the neonatal period, in childhood, or rarely in adult life. The prognosis appears to be worse when the clinical presentation is in the neonatal period. Of 118 patients diagnosed shortly after birth, 29 had signs of cardiac failure and 15 died.<sup>9</sup> In another series the overall mortality was 12% at 6 months but