#### Conclusion

In 1971 344 700 people sustained non-fatal injuries in road traffic accidents, and of these probably 8% (27 576) were back seat passengers. This figure is unlikely to be less in the subsequent years. Of these 27 576 passengers no fewer than half will have received moderate or severe injuries.

Most authorities now accept that there is a dramatic reduction in the severity of injuries, in particular to head, face, and chest sustained by front seat passengers and drivers who are adequately restrained by seat belts. Adequate seat belts worn by rear seat passengers will achieve an equally dramatic reduction in injuries sustained by these passengers. Hence, future legislation to make the wearing of seat belts compulsory should apply to occupants of both rear and front compartments of vehicles.

I am indebted to the Royal Society for the Prevention of Accidents for a grant which made possible part of this investigation and I should also like to thank Professor G. P. Arden, Mr. R. Maudsley, and Mr. M. Swan of the orthopaedic department, Wexham Park Hospital, Slough, for their encouragement and cooperation in carrying out this survey.

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# Contemporary Themes

## **Confidential Inquiries into Maternal Deaths**

#### HUMPHREY ARTHURE

British Medical Journal, 1975, 1, 322-323

#### **Prime Object**

The appalling maternal death rate during the first quarter of this century has been dramatically reduced firstly by antibiotics to control sepsis and secondly by blood transfusion in cases of haemorrhage. Fortunately the rate has continued to fall because of improvements in our maternity services, but every maternal death is a tragic event, and every endeavour must still be made in each case to try to prevent similar circumstances which might lead to another death.

This is the prime object of the confidential inquiries, concerning which the Department of Health has published triennial reports since 1952.1 We must continue to examine and criticize our practice of obstetrics in order to improve still further the safety of childbearing.

The area medical officer (before April 1974 the medical officer of health) usually initiates the inquiry by sending an inquiry form to the consultant or other doctor responsible for the patient's care. These doctors are encouraged to obtain and supply as much clinical information as possible together with a report on the post-mortem examination if obtainable, including any histological evidence.

The completed form is then sent to a regional assessor, a senior consultant obstetrician appointed by the Chief Medical Officer of the Department of Health and Social Security. He may take the case further by his inquiries and then add his summing up and an opinion on any avoidable factors which he thinks were present. Since January 1973 deaths associated with anaesthetic procedures have also been assessed by a senior consultant anaesthetist in each region.

The forms are then sent to the Department of Health and Social Security (D.H.S.S.) and thereafter are seen only by the

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Department's consultant advisers in obstetrics and anaesthesia and a departmental medical officer, who together are responsible for correlating the information, classifying the cause of death, keeping a consistent standard of assessing avoidability, and finally writing the triennial report. Valuable assistance is obtained from the Office of Population Censuses and Surveys, and several meetings are held with the regional assessors before the report reaches its final form. Strict confidentiality is maintained at every stage.

#### Over 90% Covered

All deaths due to or associated with pregnancy mentioned in death certificates are reported to the D.H.S.S., and the regional assessors are periodically informed of these reported maternal deaths so that an inquiry, if not already in progress, can be initiated. Furthermore, the Chief Medical Officer of the D.H.S.S. also receives confidential information about maternal deaths from coroners even if the fact of pregnancy has not been mentioned on the death certificate. These deaths are included in the inquiry if sufficient information is available. Coverage by the inquiry has now been increased to over 90% of all known maternal deaths.

A maternal death is included in the inquiry if it occurred during pregnancy, labour, or within one year of abortion or delivery. The number of deaths occurring more than 42 days after abortion or delivery is mentioned under each cause of death to allow comparison with other countries which follow the recommendation of the International Federation of Gynaecologists and Obstetricians, which excludes maternal deaths occurring later than 42 days.

The causes of death are classified according to the International Code of Diseases (8th revision). Many deaths have more than one cause, but each death is coded to one and only one main cause, which is not necessarily the cause shown on the death certificate. When there is more than one cause a death will be discussed in more than one chapter. For example, if a woman dies from pulmonary embolism following caesarean section for placenta praevia the death will be discussed in the chapters on pulmonary embolism, haemorrhage, and caesarean section, but will be coded only to pulmonary embolism.

Deaths are classified as true maternal deaths when the main cause is directly due to pregnancy or childbirth, or as an associated death, when the main cause is some illness such as heart disease, even though the pregnancy or childbirth has brought to light or aggravated the condition leading to maternal death.

#### **Avoidable Factors**

One of the chief features of the inquiry is the assessment of any avoidable factor or factors in the circumstances of the death. It is not suggested that a death with avoidable factors could necessarily have been prevented, only that the risk of death might have been materially lessened.

There may have been delay in treatment or failure to provide adequate services; or there may have been failure to take advantage of the services provided—for example, a hospital bed for a high-risk patient, the obstetric flying squad in the event of haemorrhage, or consultant help in an abnormal case.

Failure in diagnosis or clinical mismanagement may sometimes be regarded as an avoidable factor. It has never been the function of the inquiry to attribute blame to any particular individual, but only to draw attention to errors which can be made.

An avoidable factor may be attributed to the patient because of failure to attend for antenatal care, or she may refuse medical advice about admission to hospital. An avoidable factor is also attributed to women who have had illegal abortion. In no case has failure to use contraceptives or to accept termination of pregnancy been regarded as an avoidable factor.

Because of the undoubted improvement in maternity care it might be expected that the percentage of maternal deaths with avoidable factors would have been reduced, but in fact this has not occurred because the views of the assessors on avoidable factors has tended to become more strict.

#### **Causes of Death**

The four main causes of true maternal deaths—abortion, pulmonary embolism, toxaemia, and haemorrhage—have received particular attention in these triennial reports, and there has been a considerable reduction in the number of such deaths. Deaths from other causes such as anaesthesia, ectopic pregnancy, sepsis, amniotic fluid embolism, and ruptured uterus have therefore become relatively more important and are now receiving greater attention. A separate chapter is concerned with deaths occurring in relation to caesarean section.

Maternal deaths occur from a large number of associated causes, of which cardiac disease is the most important. This has always been discussed in a separate chapter, but recently greater consideration has been given to other associated causes, including diabetes, renal disease, intracranial haemorrhage, and suicide, in the hope that the facts will be of some value, even though avoidable factors are not often considered to be present in these cases.

The confidential inquiry into each death by the doctors concerned and the writing of each confidential report when conscientiously undertaken (and the majority of the forms are carefully completed) must be a valuable and instructive exercise. The triennial reports are of statistical value, but in addition the lessons learnt by individual inquiries should become more widely known, so that they can have a greater effect in improving maternity care.

#### Reference

<sup>1</sup> Reports on Confidential Enquiries into Maternal Deaths in England and Wales, 1952/54, 1955/57, 1958/60, 1961/63, 1964/66, 1967/69, Dept. of Health and Social Security. H.M.S.O.

## Hospital Topics

### Hospital Pharmacy Committees in England: Their Structure, Function, and Development

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British Medical Journal, 1975, 1, 323-326

#### Summary

A total of 150 chief and group chief pharmacists in England took part in a survey of the structure and role of pharmacy committees in hospitals. Just over half of the hospitals had such a committee. About two-thirds of

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these dealt only with pharmacy matters and one-third dealt also with other matters. The number of new committees set up increased slowly until 1967 and then showed a sharp rise. Their terms of reference, membership, and manner of appointment varied greatly. Among subjects dealt with the cost of drugs and the introduction of new prescribing sheets were prominent. Many of the respondents believed that the work of the committees, often with the help of smaller, more specialized groups, had significantly improved various aspects of the local supply and use of drugs.

#### Introduction

Hospital pharmacy committees are not new, especially in