Because of the possible ineffectiveness of quinidine in preventing recurrences of atrial fibrillation after counter-shock therapy[8 10] and the risk of early and late sensitivity phenomena which could have fatal consequences many clinicians in Britain do not use quinidine as a routine anti-arrhythmic agent. Fortunately alternatives are available for the prophylaxis and treatment of atrial or ventricular dysrhythmias occurring after myocardial infarction or after cardiac (or thoracic) surgery. Here the judicious use of digitalis, lignocaine,[11 12] diphenylhydantoin,[13] and possibly bretylium tosylate,[14] together with electroconversion and electrical pacing where necessary, have proved effective. Lignocaine must be given parenterally; the efficacy of oral diphenylhydantoin as an antiarrhythmic agent is disputed,[15] and bretylium tosylate produces marked postural hypotension. For more prolonged use oral procainamide, which has an action on the cardiovascular system similar to quinidine, has therefore returned to favour, despite a formidable list of possible side, toxic, and hypersensitivity effects.[16]

Beta-adrenergic receptor blocking agents, like propranolol and H56/28,[17] are thought to have an antiarrhythmic effect by inhibiting catecholamine-induced arrhythmias and by a direct quinidine-like or local anaesthetic effect on myocardial cell membrane. Oral propranolol has been shown to be ineffective in reducing the incidence of arrhythmias after myocardial infarction[18] or in preventing recurrences of atrial fibrillation after restoration of sinus rhythm by D.C. shock.[19 20] Parenteral propranolol might be hazardous when used in the acute stages of a myocardial infarct.[21] H56/28 has yet to be fully investigated.

The search, therefore, goes on for an effective, safe, oral antiarrhythmic agent for long-term use.

Natural Death at the Wheel

As the number of vehicles on the roads increases, so will the number of accidents precipitated by natural disease. The exact number can never be known, because a sudden departure from normal health might easily be sufficient to interfere with the driver's capacity enough to cause an accident to a fast-moving car yet not be detectable clinically if he survives. Moreover, if the driver is killed, it might not be evident as a significant lesion post mortem, either because he has suffered multiple injuries which mask the disease, or because it may be of such a minor nature that a pathologist could not be sure, in the absence of a clinical history, that it would be enough to cause any symptoms. It is sometimes suggested that the licensing authorities do not do enough to ensure that drivers of private cars are fit, but how far they could or should go is open to debate. It is different altogether where public service vehicles are concerned. The passenger on a bus or in a taxi, who pays a fare for his journey, is entitled to know that the driver is not suffering from some detectable condition likely to lead to an accident. Bus drivers undergo periodical medical examination to ensure so far as possible that they are fit for the task, and the small number of bus accidents due to the driver's death or illness bears witness to the effectiveness of the examination. In some cities taxi drivers are also subjected to recurrent medical inspection, but in some places this is not done, and it seems that it ought to be.

In a recent paper on over a thousand road accidents in California[1] the authors reported their studies on the deaths of drivers dying within 15 minutes of a single vehicle accident, and have come to the conclusion that 15% of these deaths were due to natural disease. This is a surprisingly high total, but the fact that 86% of the cases were subjected to necropsy indicates careful investigation. They found too, as others have, that often if a driver becomes ill and dies without time to stop, the lack of serious injury gives a clue to the fact that illness must have been the cause of death. In addition, witnesses often report observations indicating clearly the illness of the driver.

As would be expected, coronary artery disease is more often than not the condition causing sudden illness at the wheel. The question can be asked whether necropsies are adequate to detect all those cases in which death or collapse has occurred to precipitate the accident. Naturally the standard of post-mortem examination varies, like everything else, but before the actual examination is reached the question whether there is to be one or not is of vital importance. There are places, both in Britain and abroad, where necropsies are avoided in cases of sudden death wherever possible unless the cause is obviously criminal. A guess at the cause of death has then to be made either by a doctor or by a police officer as a result of an external examination. This in general is to be deprecated, and fortunately the practice is dying out. Certainly in all cases of accident a post-mortem examination should be made, even though the cause of death may be thought obvious, because valuable and sometimes surprising information may come to light, particularly bearing on matters of civil liability. Nowadays there is no reason why in Great Britain a specialist pathologist should not always be obtained to investigate a death with medico-legal implications.

Improved Examinations

Medical curricula in all countries have changed considerably in the last 10 years. But examination techniques have not kept pace with the impressive advances that have been made in the behavioural sciences, educational psychology, and statistics.

New methods of evaluating the student's performance have been introduced with the intention of improving his motivation, making the best of his capacity for learning, and recognizing quickly his defects and correcting them. Evaluation has become an integral part of the educative process. At the same time, the reliability, the validity, and the accuracy of the examination procedures have themselves been questioned. Teachers and examiners have come under scrutiny, and, though the defects of some of them have long been the subject of comment by their students and colleagues, it is now being recognized that their shortcomings may be subject to correction. In fact, there has been a general recognition that the teacher himself must learn how to teach, and the examiner must acquire skills which are not found simply by

[1] West, I., Nielsen, G. L., Gilmore, A. E., and Ryan, J. R., *J. Amer. med. Ass.*, 1968, **205**, 266.
[2] See *Brit. med. J.*, 1967, **2**, 521.

[1] Charvat, J., McGuire, C., and Parsons, V., *A Review of the Nature and Uses of Examinations in Medical Education, Wld Hlth Org. Publ. Hlth Pap.*, 1968, No. 36.

doing what comes naturally. These changed attitudes have not been achieved without resistance, but they have now become general among teachers and examiners, and it is common practice, for example, for them to submit themselves to the multiple-choice papers which they have designed for their students.

The World Health Organization has just issued a valuable booklet[1] in which Professor J. Charvat (Czechoslovakia), Miss C. McGuire (U.S.A.), and Dr. V. Parsons (United Kingdom) provide an analysis of the new procedures for the evaluation of student performance. Though their review is limited to European and North American practice, they recognize early in their discussion that in formulating the range of qualities that have to be assessed it is necessary to define the professional responsibilities of the physician in the light of the health needs and the organization of the health services in his geographic area. They answer, in factual detail, the question what sort of a doctor we wish to make, and then provide an illustrative list of the physician's requirements—cognitive, psychomotor, and affective—before they discuss how the student's progress towards these targets should be tested. They give many thoughtful examples of the devising of appropriate "test situations." Particularly interesting is their discussion of the "simulation technique," which is an attempt to assess the student's capacity for making decisions and managing patients. So far as is possible the cases, the situations, and the criteria for judging the candidates' competence are standardized. A check-list is provided for the examiner in a clinical examination which should improve the reliability of his grading, make the student aware of his progress, and keep the faculty committees informed.

The shortcomings of the present examination systems in common use in Europe and North America are discussed, and suggestions are made for drawing more on departments of education in the training of medical examiners. Finally, the examination practices in Canada, Czechoslovakia, France, the U.S.S.R., the United Kingdom, and the U.S.A. are given in detail. There are many other subjects of great importance to medical schools, such as the selection of medical students, which are reviewed in this timely survey. The General Medical Council will soon be seeking the reactions of licensing authorities to its Recommendations on Basic Medical Education, issued in 1967.[2] The W.H.O. review now gives the medical schools an opportunity of judging their present endeavours in the light of world-wide achievements in medical education.

Tuberculosis of the Mouth

Though oral tuberculosis was always an uncommon condition, cases continue to be reported.[1] The patient usually presents with a lesion of the oral mucous membrane secondary to advanced pulmonary tuberculosis. Primary tuberculosis of the oral mucosa and tonsils and lupus vulgaris of the mouth are now very rare. Before antituberculous chemotherapy was available oral lesions were found in 0.2% cases of pulmonary tuberculosis.[2] Necropsy studies on patients dying of pulmonary tuberculosis showed oral lesions in 20% cases, but it is unlikely that many could be detected clinically.[3] Between 1947 and 1960 only 21 cases were reported from Great Britain and the United States.[2]

The condition usually occurs in males over 45 years of age with extensive pulmonary tuberculosis. Intact oral mucosa is resistant to invasion by *Mycobacterium tuberculosis*, and saliva probably has an inhibitory effect, but breaches in the mucosa such as minor aphthous ulceration give access to organisms in the sputum. Ulceration of the tongue, which is usually extremely painful, is the commonest lesion, but lips and palate can be affected. Granulomata and diffuse glossitis occur rarely. The ulcers can resemble carcinoma, which is a far commoner condition, or periadenitis mucosa necrotica recurrens, Wegener's granulomatosis, or syphilis.[1] For all but the most transient ulceration of the mouth microscopical examination of a biopsy specimen is essential and a chest radiograph is helpful.

Secondary tuberculosis of the bone round the teeth also occurs, the lesions being similar to those of nonspecific infections such as periapical granulomata or abscesses. Tooth extraction commonly leads to persistent infection or proliferation of granulation tissue in the socket.[2] Biopsy of the lesion and a chest radiograph are usually required for the diagnosis.

Prognosis of secondary oral tuberculosis was previously poor because of the associated severe pulmonary disease, but now results with chemotherapy are excellent and the ulcers heal within three weeks.[1]

Transient Synovitis of the Hip

When tuberculosis was common the onset of a painful limp with stiffness of the hip in a young child was properly regarded with deep suspicion, and led to immediate admission to hospital. This tradition still influences our practice, though tuberculous arthritis is now a rarity in Britain. Today the irritable hip of childhood may almost always be attributed to a simple, transient synovitis. The clinical picture is so consistent that transient synovitis of the hip is regarded by J. A. Adams[1] as a definite clinical entity. Slightly more common in boys, it occurs throughout childhood, but most often between the ages of 5 and 10. The pain in the hip may radiate to the thigh or knee; there are a limp and moderate limitation of hip movements with protective muscle spasm, though local tenderness is usually only slight. Radiographs are normal or show only soft-tissue swelling. The patient has a normal or slightly raised temperature and erythrocyte sedimentation rate and a normal white blood cell count. Sterile clear or slightly cloudy fluid may be aspirated from the hip joint, and a non-specific synovitis is found on biopsy. The symptoms rapidly subside with a few days' rest in bed, though in a few patients the inflammation persists for weeks or occasionally months.

By definition these cases comprise those with inflammation of the hip joint with the one common factor of no identifiable cause. The aetiology is not necessarily the same in each.

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[2] Cawson, R. A., *Brit. J. Dis. Chest*, 1960, **54**, 40.
[3] Katz, H. L., *Quart Bull. Sea View Hosp.*, 1941, **6**, 239.

[1] Adams, J. A., *J. Bone Jt. Surg.*, 1963, **45B**, 471.
[2] Miller, O. L., *J. Amer. med. Ass.*, 1931, **96**, 575.
[3] Butler, R. W., *Brit. med. J.*, 1933, **1**, 951.
[4] Edwards, E. G., *J. Amer. med. Ass.*, 1952, **148**, 30.
[5] Blockey, N. J., and Porter, B. B., *Brit. med. J.*, 1968, **4**, 557.
[6] de Valderrama, J. A. F., *J. Bone Jt. Surg.*, 1963, **45B**, 462.