

"ground glass" appearance of the lung fields radiographically. If diagnosed early this otherwise fatal condition can be cured surgically with a much better chance of success than is usually believed.<sup>7</sup>

Heart failure due to large left to right shunts usually presents after the first month of life and is usually obvious from the murmurs which are commonly present. When it does develop the failure may be severe and intractable. If a large patent ductus arteriosus is present this can be closed surgically, while in ventricular septal defect the pulmonary artery can be banded to provide an artificial obstruction to the outflow tract and thus cut the blood flow through the shunt to the minimum. Later on, when the child has grown to a size when open heart surgery can be carried out more safely, the band can be removed and the defect closed.

The clinical diagnosis of heart disease is less precise in the infant than it is in the child or adult. Heart failure is often first manifest by excessive sweating, inability to finish feeds, and irritability. Only later is there overt dyspnoea and enlargement of the liver. Oedema is rare, late, and usually confined to the periorbital area. Central cyanosis is sometimes hard to recognize—particularly if the infant is in heart failure with mottling of the fingers and toes. Cyanosed infants readily develop hypothermia, while acidosis from hypoxaemia, inadequate pulmonary blood flow, and an inadequate systemic cardiac output leads to a fall-off in myocardial performance, with a rapid deterioration in the infant's state.

Improvement in the outlook for children born with congenital heart disease depends very greatly on the people who are first responsible for the baby's welfare; the midwife, the general practitioner, the obstetrician, and the paediatrician. Understandably, the last often wants to make sure of the diagnosis or to establish whether the baby may yet improve before referring the baby to a paediatric cardiac centre, but this delay may be the reason why a baby subsequently fails to survive. Furthermore, referral should be to a centre which is equipped to handle the baby at once, whatever the time of the day or night. So many defects can be alleviated surgically, provided the diagnosis is established with certainty by catheterization and angiocardiology while the child remains in a good condition. These children suffer from serious haemodynamic faults which medical management can do little to alleviate. The cardiologist's task is to recognize the child who is becoming sick and to diagnose the defects, within the framework of a team which includes a surgeon experienced in operating on small babies.

<sup>1</sup> Carlgren, L. E., *British Heart Journal*, 1959, 21, 40.

<sup>2</sup> Hay, J. D., *British Medical Journal*, 1966, 2, 661.

<sup>3</sup> Hurwitz, R. A., Simmons, R. L., and Girod, D. A., *Journal of Pediatrics*, 1970, 77, 412.

<sup>4</sup> Rashkind, W. J., and Miller, W. W., *Journal of the American Medical Association*, 1966, 9, 91.

<sup>5</sup> Mustard, W. T., *Surgery*, 1964, 55, 460.

<sup>6</sup> Burnell, R. H., Ghadish, P. E., Joseph, M. C., and Paneth, M., *Thorax*, 1970, 25, 116.

<sup>7</sup> Gathman, G. E., and Nadas, A. S., *Circulation*, 1970, 42, 143.

## Royal College of Psychiatrists

In the first issue (15 November 1853) of the *Asylum Journal of Mental Science* (now the *British Journal of Psychiatry*) the then editor, Dr. John Charles Bucknill, wrote: "From the time when Pinel obtained the permission of Couthon to try the humane experiment of releasing from

fetters some of the insane citizens chained to the dungeon walls of the Bicêtre to the date when Conolly announced that in the vast asylum (Hanwell) over which he presided, mechanical restraints in the treatment of the insane had been entirely abandoned and superseded by moral influence, a new school of medicine has been gradually forming." Thus is sketched on a thumbnail the history of the foundation of the English school of psychiatry. It owes its corporate existence to the establishment in 1841 of the Association of Medical Officers of Asylums and Hospitals for the Insane, which in 1855 boasted 121 ordinary members and two honorary members. For the most part they were medical superintendents or medical officers of public or private asylums.

The association changed its name in 1865 to the Medico-Psychological Association, and in 1926 it received a Royal Charter of Incorporation entitling it to style itself the Royal Medico-Psychological Association. Its growth, particularly in recent years, has been anything but gradual. By 1970 the ordinary membership had risen to 3,823 together with 32 honorary, 61 corresponding, and 79 associate members—in all representative of every facet of psychiatry. Today we congratulate the R.M.P.A. on the award of a supplementary charter, an accolade enabling the association to become a royal college.

Its elevation to the status of a royal college gives fitting expression to the importance that psychiatry has attained as an integral part of medicine and reflects the confidence of the whole medical profession in those who are to become its Fellows and members to maintain the prestige with which it is now endowed. Prestige, however, is a fickle mistress who can be lost as easily as she can be won. As well as offering encouragement to research and education in its specialty the Royal College of Psychiatrists would do well to take on the responsibility of trying to improve the conditions of some of the institutions in which psychiatric patients are being treated. The appalling circumstances disclosed by recent inquiries must be brought to an end speedily.

For these twin objectives to be achieved the standards of psychiatric practice at all levels must be improved so that the patients themselves are the beneficiaries. To this end training is of primary importance. In the past few decades there has been a welcome proliferation of chairs of psychiatry in British universities, so that the academic side should be well taken care of. The training in psychiatric practice is of equal if not more importance. Rigorous standards must therefore be laid down below which accreditation of psychiatric hospitals, psychiatric units in general hospitals, and other specialized psychiatric units for the training of psychiatrists would be refused. The college will undoubtedly assume the functions of an examining body. The diploma of membership which it will award to successful candidates must carry the same cachet as membership by examination of sister royal colleges if it is to become a prerequisite for the promotion to the rank of consultant.

Psychiatry is the least explored, the most challenging, and some would argue, the most complex of all branches of medicine. There are still far more doors to be unlocked than we have keys to. James Howell, the first Historiographer Royal, described the position of psychiatry whimsically but succinctly in the seventeenth century: "Wer there a Physitian that could cure the maladies of the mind as well as those of the body, he needed not to wish the Lord Maior, or the Pope for his uncle, for he would have patients without number".<sup>1</sup> The position is not much changed today. "Let

Wisdom Guide" is the present motto of the Royal Medico-Psychological Association. It should be good enough for the new royal college, for only with wisdom in the context of John Conolly's humanity can progress be made and the hopes and aspirations of its founder fathers of 1841 be fulfilled.

<sup>1</sup> Hunter, R., and Macalpine, I., *Three Hundred Years of Psychiatry, 1535-1860*, p. 128. London, Oxford University Press 1963.

## Preferences in Antibiotic Prescribing

An interesting study of "staff attitudes concerning the comparative merits of antibiotics" is reported by P. V. J. Macaraeg, L. Lasagna, and J. R. Bianchine.<sup>1</sup> These members of the Division of Clinical Pharmacology sent a questionnaire to "the entire intern and resident population" of the Johns Hopkins School of Medicine, Baltimore, and 160 out of 213 replied. The departments in which they served were Ward Medicine, Private Medicine, Obstetrics and Gynaecology, Pediatrics, and Surgery. The principal object of the inquiry was to ascertain views on the absolute and relative merits of ampicillin, expenditure on which increased from 59,523 dollars in 1967 to 85,467 dollars in 1969.

Stated indications for its use varied in different units, but all prescribed it frequently for infections of the urinary tract, Ward Medicine and Pediatrics frequently for meningitis, and Pediatrics for otitis and gastroenteritis. Most of the numerous other indications mentioned are clinical diagnoses and not infections by named organisms. In this connexion it is stated that: "Reliance for guidance on bacteriological cultures and in vitro sensitivity tests is accepted routine in this hospital. Although it is clearly desirable to know what one is treating, the performance of sensitivity testing is beset with technical problems, and the relation of such in vitro data to in vivo situations has been properly questioned." But surely this is a defeatist attitude. If discrepancies between in-vitro findings and in-vivo results are common enough to justify it they should be analysed, and where laboratory methods are at fault they should be rectified.

There was some variation in the frequency with which reactions (most commonly rashes) were reported to have been seen, and Pediatrics was alone in reporting a high incidence of diarrhoea. Perhaps the most interesting answers were to a question on preference between ampicillin and each of seven other drugs when an equal therapeutic effect was to be expected from both. Penicillin was almost unanimously preferred, usually because it is cheaper (one-third of all the replies took account of cost). Ampicillin was preferred to chloramphenicol because it is safer. Opinions on its merits relative to tetracyclines varied, the most decided preference being for ampicillin by Pediatrics because tetracyclines stain teeth. On sulphonamides attitudes varied, those physicians who preferred them often giving cheapness as a reason, and the advocates of ampicillin declared that it is more effective or less toxic. A large majority preferred ampicillin to nitrofurantoin, colistin, or cephalothin as being safer, more effective, or (as compared with cephalothin) more easily administered.

The paper concludes by quoting some written verdicts on these findings by unnamed experts in infectious diseases,

each of whom is highly critical of some of the practices disclosed. Two of them contend that ampicillin is more allergenic than penicillin, and one of them maintains that "there are really few instances where penicillin will not do as well, more safely and less expensive." He also protests against giving enterococcal endocarditis as an indication, "when penicillin and streptomycin are the only regimens demonstrated to be curative with any regularity in this infection." Two experts query the efficacy of ampicillin in adult meningitis, though apparently admitting it for children. Other supposed indications disapproved of are pneumonia of uncertain origin, Eaton agent pneumonia, wound infection, and gastroenteritis. Strangely, neither the authors nor the experts refer to a type of use which is alone in being incontestably wrong. This is for penicillin-resistant staphylococcal infection, described as such by Pediatrics, and presumably included by Surgery in "suppurative ear, nose and throat disease in which Gram-positive organisms may be resistant to penicillin." Two departments also name osteomyelitis, which is commonly due to resistant staphylococci. The myth that ampicillin is a sort of superpenicillin for all staphylococcal as well as some other infections evidently dies hard, and belief in it in one of the most famous medical schools in the world is sadly disillusioning. Ampicillin is just as rapidly destroyed as benzyl penicillin by staphylococcal penicillinase and thus equally unsuitable for treating resistant staphylococcal infections. This was clearly stated in the original paper<sup>2</sup> announcing the discovery of ampicillin which appeared in the *B.M.J.* in 1961, and has been reasserted many times since in these columns and elsewhere. How did this misconception arise, and why is it still apparently ineradicable even after ten years?

<sup>1</sup> Macaraeg, P. V. J., Lasagna, L., and Bianchine J. R., *Clinical Pharmacology and Therapeutics* 1971, 12, 1.

<sup>2</sup> Rolinson, G. N., and Stevens, S., *British Medical Journal*, 1961, 2, 191.

## Calcium and Phosphate in Renal Failure

In comparison to its natural counterpart the artificial kidney is a crude apparatus, but patients without useful renal function of their own may be kept in remarkably good health by regular haemodialysis. One of the problems that does remain for some of them, however, is that of uraemic bone disease. Osteomalacia or secondary hyperparathyroidism may fail to improve or may even progress in spite of otherwise successful dialysis. In one centre no fewer than 85% of patients were reported to have been affected,<sup>1</sup> and, though the incidence is much lower in most others, too often osteodystrophy stands in the way of rehabilitation.

Osteomalacia in uraemia has long been attributed to a defect in calcium absorption resulting from resistance to the action of vitamin D on the gut.<sup>2,3</sup> The recent findings of accelerated destruction of vitamin D<sub>3</sub> in uraemia and a defect in its conversion to its active metabolite, 25-hydroxycholecalciferol,<sup>4</sup> lend support to this view. But calcium absorption can be increased without prescribing additional vitamin D by giving large quantities of calcium by mouth.<sup>2,5-7</sup> However, since the absorption of phosphate does not increase at the same time it is uncertain whether the calcium is taken up by bone. Now E. M. Clarkson and his colleagues<sup>8</sup> have shown that both calcium and phosphate balances in patients