

valuable for burns surgery; as well as preventing hypotension, it may make a difficult endotracheal intubation unnecessary.¹² It is also a good choice for many minor paediatric operations and procedures, such as intravenous cannulation on an uncooperative child, and for certain radiological investigations. Finally, it may be especially useful in ill patients for the induction of anaesthesia or for short operations on the body surface.

Ketamine is easy to administer. In countries in which there are few skilled anaesthetists there will be a temptation to use ketamine widely without an anaesthetist.¹³ Though ketamine has a considerable margin of safety, occasionally the airway becomes obstructed. There can be respiratory depression. A letter in this issue (p. 709) reports that, as with any other anaesthetic, the untoward can occur with little or no warning. Thus the use of ketamine does not, in any respect, reduce the need for continuous vigilance and skilled care.

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Penicillin-resistant Pneumococci

It has always been an article of faith in the field of chemotherapy that neither group A haemolytic streptococci nor pneumococci are capable of becoming resistant to penicillin. Indeed it is one of the great virtues of penicillin that in general bacteria do not develop resistance to it, as to so many other antibiotics. The only serious exception is the gonococcus. Resistance in staphylococci is not acquired, but the result of selection. Other important species are just as sensitive as they were in the old days: pneumococci were found by M. Finland and his colleagues in studies of recently isolated strains to possess the same degree of sensitivity in 1957¹ and again in 1965² as they had before 1949. Any threat to the continuance of this happy position would prejudice the treatment not only of pneumonia but of various other infections in which pneumococci are involved.

A faint but unmistakable warning that this position may change comes in a recent report by D. Hansman and his colleagues from Australia.³ There have been two single isolations of resistant strains in Australia itself, but this report concerns the prevalence of a resistant type in two villages in New Guinea. In this area pneumococcal pneumonia is common, and, because the inhabitants living in isolated areas may die of it before obtaining medical attention, penicillin prophylaxis has been attempted. It is mentioned that in the two villages studied 507 people had re-

ceived 1,357 courses of procaine penicillin in the past ten years. In the trial described in the present report 1,200,000 units of procaine penicillin were given to adults and 600,000 units to children once a month. It may be questioned in passing whether this regimen is calculated to have the effect desired. A single dose cannot be expected to eliminate the organism from the air passages, and, since its effect would last for two days at most, it would leave the patient unprotected until the next was due. Benzathine penicillin, the effect of which is much more prolonged, might have been a better choice for this kind of use. However, this treatment was given in one of two neighbouring villages, and throat swabs were taken monthly from both.

During the next 3½ months 15 resistant strains were isolated, 11 from the treated village and 4 from the untreated, 2 of which were from actual infections. All were of type 4, and were inhibited only by 0.5 µg/ml of penicillin, a degree of resistance exceeding the normal by a factor of 25. Their sensitivity to ampicillin and to cephaloridine was also reduced by factors of 2-4 and 10 respectively. Resistance was stable, persisting after repeated cultural transfer. No information is given about the efficacy of penicillin prophylaxis or of treatment of those patients infected by resistant strains.

The importance of this observation lies in showing that either more resistant strains exist or that mutation to resistance is possible in this species in the rather unusual conditions existing in New Guinea. Abnormal resistance has occasionally been detected only after many years of use of an antibacterial drug: the present resistance of meningococci to sulphonamides and of gonococci to penicillin are examples. Now it seems advisable that recent isolates of pneumococci in other parts of the world should be accurately examined for any tendency to this change.

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Bed Rest in Rheumatoid Arthritis

Rheumatoid arthritis is an inflammatory disease which affects the general health, often causing anaemia, loss of weight, poor appetite, and disturbance of the sense of wellbeing. It also causes inflammation in from one to some 70 joints of the body. These changes may remit in days, weeks, or months, or continue relentlessly to the patient's death, or remit and relapse from time to time.

In such a variable and unpredictable disease, for which there is no certain cure, accurate prognosis is rarely possible and treatment must be largely empirical. For these reasons the assessment of different forms of therapy is notoriously difficult, for spontaneous relapse or remission is a part of the natural history of the disease, and the anxiety and depression from which patients are apt to suffer may affect therapeutic results. Nevertheless, a candidate asked in the final examination to discuss the treatment of active rheumatoid arthritis who did not mention rest in general and bed rest in particular would probably have failed. What is the basis for this commonly accepted belief? Is it faith or fact?