

doubt remains. Antibiotic treatment may produce considerable benefit.

Little can be done at present to prevent the increased likelihood of gall stones,¹⁴ though if renal or ureteric stones¹⁵ develop owing to hyperoxaluria a low-fat and low-oxalate diet may help.

Most patients can have a satisfactory life after small bowel resection, but regular and informed surveillance is essential.

- ¹ Backman, L, and Hallberg, D, *Acta Chirurgica Scandinavica*, 1974, **140**, 57.
- ² Newcomer, A D, and McGill, D B, *Gastroenterology*, 1966, **51**, 481.
- ³ Corcino, J J, Waxman, S, and Herbert, V, *American Journal of Medicine*, 1970, **48**, 562.
- ⁴ Borgström, B, Lundh, G, and Hoffmann, A, *Gastroenterology*, 1963, **45**, 229.
- ⁵ Klipstein, F A, *Bulletin of the New York Academy of Science*, 1966, **42**, 638.
- ⁶ Newcomer, A D, and McGill, D B, *Gastroenterology*, 1966, **51**, 481.
- ⁷ Bury, K D, *Surgery, Gynecology and Obstetrics*, 1972, **135**, 177.
- ⁸ Hislop, I G, and Grant, A K, *Medical Journal of Australia*, 1970, **2**, 963.
- ⁹ Kalser, M H, *et al*, *Gastroenterology*, 1970, **38**, 605.
- ¹⁰ Compston, J E, and Creamer, B, *Quarterly Journal of Medicine*, 1977, **46**, 485.
- ¹¹ Goode, A, *et al*, *Lancet*, 1976, **1**, 122.
- ¹² Straus, E, Gerson, C, and Yalow, R S, *Gastroenterology*, 1974, **66**, 175.
- ¹³ Compston, J E, *et al*, *Lancet*, 1978, **1**, 9.
- ¹⁴ Heaton, K W, and Read, A E, *British Medical Journal*, 1969, **3**, 494.
- ¹⁵ Dowling, R H, Rose, G A, and Sutor, D, *Lancet*, 1971, **1**, 1103.

NHS laboratories: the story as before

Both the work load in individual laboratory disciplines¹⁻³ and their medical and technical staffing⁴⁻⁶ are still in a state of rapid change. We should not place too much reliance on comparisons or measurements of work load and effort between one laboratory and another, however, since the method of collecting NHS statistics^{7, 8} is open to local interpretation and presentation. Nevertheless, until we introduce, and the professions accept, a more efficient system (perhaps based on the experience⁹ of the Canadians), present methods of collecting data are better than nothing.¹⁰

Analysis of data from laboratories in England for 1966-74 by Buttolph has shown that when the "request" is taken as the basic unit of work load there has been a continuing dramatic increase in total numbers. The increase in requests received in clinical chemistry, haematology, and bacteriology has been exponential, while in cytology and surgical histology requests have risen linearly with time. Two-thirds of the total work load of laboratories is clinical chemistry and haematology; the average increase of 10% per annum in chemistry means that the total doubles in seven years, while in haematology the average increase of 5% per annum implies doubling in 14 years.

During the period under review the number of laboratories carrying out analyses fell by 22% to 500, and, though the numbers of medical laboratory technicians grew, the percentage rise was less than that of the work load. During the past decade many observers have confidently predicted a slowing down in the proliferation of laboratory requests. All have been confounded; the exception was in 1974, when several external factors applied—strikes, supply difficulties, and the reorganisation of the Health Service—sufficient to account for the reduction in requests. Nevertheless, the latest statistics¹⁰ seem to indicate another plateau in the inflow of work, though whether this is real or illusory remains to be seen. Projections for the future remain difficult, though simulation models¹² might provide a more reasonable basis for predictions.

The growth rate in laboratories is a product of both exogenous and endogenous influences, the former arising from clinics, wards, and general practitioners and the latter from the introduction of newer analytical techniques and mechanisation. If growth continues can the laboratory meet the requirements of the future? If we knew the service requirements more accurately we could plan to provide equipment, staff, laboratories, and finance, but in a period of economic restraint such plans would be unlikely to come to fruition.

Furthermore, with the uncertainty in all aspects of hospital life there is no guarantee that the traditional roles of both the laboratories and the hospital will not change. The curtailment of the hospital building programme must inevitably affect the availability of laboratory accommodation for some years ahead. Rationalisation of the laboratory service has been proposed,¹³ with the suggestion that it should be based on groups of specialised units serving a population of 500 000-700 000. Reorganisation on these lines would increase efficiency in the use of both manpower and resources. One step along the route of rationalisation would be the wider development of regional and supraregional services.

- ¹ Whitehead, T P, *Annals of Clinical Biochemistry*, 1971, **8**, 1.
- ² Barnard, J F, *British Medical Journal*, 1976, **1**, 383.
- ³ Rose, H, and Abel-Smith, B, *Doctors, Patients, and Pathology*. London, Bell, 1972.
- ⁴ Baron, D N, *Journal of Clinical Pathology*, 1974, **27**, 1013.
- ⁵ Greenbury, C L, *Journal of Clinical Pathology*, 1971, **24**, 551.
- ⁶ Lathe, G H, and Mitchell, F L, *Lancet*, 1966, **1**, 1413.
- ⁷ Ministry of Health, *Pathology: Measurement of Work in Units*. London, HMSO, 1963.
- ⁸ Ministry of Health, *Revision of Pathology Statistics, Hospital Memorandum 64 (82)*, 1964.
- ⁹ Statistics Canada: *Canadian Schedule of Unit Values for Clinical Laboratory Procedures*. Ottawa, 1975.
- ¹⁰ Johnstone, J H, in *Recent Advances in Clinical Biochemistry*, ed K G M M Alberti. Edinburgh, Churchill Livingstone, 1978.
- ¹¹ Buttolph, M A, *Journal of Clinical Pathology*, 1977, **30**, 1103.
- ¹² Peat, Marwick, Mitchell, and Co, *Pathology Laboratory Simulation Model*. Department of Health and Social Security Project. London, 1973.
- ¹³ Goldberg, I J L, and Mitchell, F L, *Lancet*, 1970, **2**, 1240.

Use of laparoscopy in liver disease

Despite its wide acceptance throughout Europe the use of laparoscopy in patients with liver disease has not yet found general favour among British gastroenterologists. Nevertheless, with further evidence both from the United States,¹ where again the procedure is not widely practised, and from Britain,^{2, 3} a re-evaluation of the technique is surely justified.

In their series of 55 patients from New York Friedman and Wolff¹ found that it was diagnostically useful in 52 cases, using laparoscopy both for visualising the surface and overall appearances of the liver and for guiding liver biopsy by direction of the needle towards visibly abnormal areas. Balfour² reported a similar success rate, using the rather less conventional general (rather than local) anaesthetic, and the King's College Hospital group³ found that laparoscopy contributed useful information in the management of 110 of 170 consecutive patients. Laparoscopy is simple to perform, and even in the sick and elderly it is safer than most of the other alternative diagnostic techniques. The equipment is relatively inexpensive—at least in contrast with many other examples of high technology medicine. Hospitals with gynaecological departments are likely already to have a laparoscope, so that hesitancy by gastroenterologists to accept