infants suspected of having reflux are given trimethoprim from birth and then investigated by cystourethrography.

We still have much to learn about prenatal ultrasonography, and the need for interdisciplinary collaboration is great.¹ Patients' interests are probably best served by prompt antenatal referral of suspected fetal uropathy to a regional specialist centre, even though in many instances delivery will be undertaken in the local hospital.

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Mechanical ventilation at home

May save life and improve its quality

For many years a few patients have used mechanical ventilation successfully at home.¹ Now that the importance of nocturnal hypoventilation in causing diurnal respiratory failure and cor pulmonale is known,^{2,5} together with the importance of respiratory muscle fatigue,^{6,7} there is renewed interest in mechanical ventilation. This has been encouraged by the introduction of the simple and efficient technique of intermittent positive pressure ventilation delivered non-invasively through a nasal mask.^{8,9}

Patients who survive with severe, unremitting weakness of the respiratory muscles require continuous mechanical ventilation, usually with intermittent positive pressure through a permanent tracheostomy. Non-invasive techniques, which avoid the complications and constraints of a permanent tracheostomy, are preferred for those who require ventilatory assistance only at night. Intermittent negative pressure can be applied to the thoracoabdominal wall with a tank ventilator, cuirass, or airtight jacket and frame or positive pressure can be delivered to the airway through a mouthpiece or well fitting nasal mask.

The indications for domiciliary ventilation include central sleep apnoea; respiratory or cardiorespiratory failure secondary to skeletal deformity; static or only slowly progressive neuromuscular disease; and healed pulmonary tuberculosis treated surgically with resultant pulmonary restriction.¹⁰⁻¹³ Excellent results have been reported in all these. The value of home ventilation in managing progressive neuromuscular disease, particularly muscular dystrophy, is being explored. It may prove preferable to long term domiciliary oxygen treatment. A trial of home ventilation against long term domiciliary oxygen treatment in patients with chronic obstructive pulmonary disease is being sponsored by the Department of Health.

About 500 patients in the United Kingdom are using mechanical ventilation at home.¹⁴ Proportionately higher figures have been reported from Europe and the United States and probably some patients here would benefit, but they either have not been identified or have no service available.^{15,16} Improvements are likely to come from concentrating the

facilities in regional centres with arrangements for funding the capital cost of the equipment and its maintenance and supervision.^{17,18} Home ventilation saves lives in some patients with otherwise fatal cardiorespiratory failure, reduces the need for repeated hospital admission, and improves the quality of life by relieving daytime disability.^{19,20} It is high time that this valuable service is organised on a national basis.

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