guidance, child minding, and the welfare of the mentally ill and the mentally subnormal.

In October of this year the Government published a White Paper[1] containing proposals for the reorganization of local authority services in Scotland. A working group had been set up by the Secretary of State, and had been advised by members of the staff of university departments of social service drawn from London, Glasgow, and Edinburgh. The White Paper was the result of the consideration of the recommendations of the Kilbrandon Committee[2] and independent advisers. The Seebohm Committee is likely to give careful consideration to this White Paper. Here too a new social welfare department is proposed—but its responsibilities are to be " based on the insights and skills of the profession of social work." The proposals make it quite clear that medical and educational staff will be consulted but that the head of the department will be one trained in a different discipline.

All branches of the medical profession should study these proposals with the greatest care, for the transfer of the medical and social functions now carried out by doctors to lay staff could have gravely adverse effects on the well-being of the community. Furthermore, the transfer of administration of medical and quasimedical functions to the overlordship of a non-medical person may well be thought repugnant to the principle of the freedom and independence of the medical profession and a threat to ethical standards. But the White Paper does say that " the proposals are presented as a basis for discussion with interested persons and organizations, with a view to comprehensive legislation when opportunity offers " —the flying of a kite which may well end by being shot down in flames.

Injustice to Teachers

The damage to medical teaching which the Government's failure to fulfil its obligations may do has been emphasized recently in these columns.[3 4] Though a small group in the medical profession, the clinical teachers have a cardinal importance that needs no stressing. Their pay does not reflect this. The current levels are a serious injustice to the present holders of posts and a deterrent to recruitment. Coming at a time when the expansion of medical teaching is urgently needed, the Government's refusal to carry out its earlier promises is an error whose effects can last for many years.

Last Saturday a meeting of university clinical teachers was held at B.M.A. House, London, by invitation of the B.M.A. to review the situation and see what could be done ; a report appears in the *Supplement* at page 195. No observer could have been left in doubt about the bitterness that clinical teachers feel for the way they have been treated, and many spoke too of vacancies unfilled and the failure of suitable candidates for teaching posts to come forward in response to advertisements.

If the immediate future of teaching is not to be jeopardized a means must be found quickly of making remuneration in the university posts commensurate with the clinical responsibility as well as research and teaching that they entail. To safeguard the more distant future a drastic overhaul is required in the procedures for bringing the teachers' needs and views to the attention of the Government and the University Grants Committee. In this connexion the conference learnt of a proposal from the Ministry of Education and Science for the setting up, by the Government, of a Group in the National Board of Prices and Incomes to consider teachers' salaries. And the Ministry's letter (reproduced in the *Supplement*, p. 195) states that it would be " within the competence of the Group and of the Board, in considering the salaries of senior clinical teachers, to take account of the evidence on the relationship between those salaries and the salaries of the N.H.S. consultants." Clearly the whole question of negotiating through a Group of the Board is something that must be looked at very carefully, for it has not so far been a part of the medical scene.

[1] *Social Work and the Community*, 1966, Cmnd. 3065. H.M.S.O.
[2] *Report of the Committee on Children and Young Persons (Scotland)*, 1964, Cmnd. 2306. H.M.S.O.
[3] *Brit. med. J.*, 1966, **2**, 483.
[4] Ibid., 1966, **2**, 905.

Lymphatics and Nails

The study of lymphatics by the present method of lymphography was introduced by J. B. Kinmonth and G. W. Taylor[1] only twelve years ago, and oily contrast media were introduced as late as 1962.[2] Kinmonth and Taylor's technique and oily media permit *x*-ray visualization of vessels which are accessible for cannulation and of the lymph nodes into which those vessels drain. It has been in this relatively short period that our knowledge of the lymphatics and their abnormalities have been investigated, and understandably therefore much remains unknown. The spread of malignant disease has been studied in detail, but few benign conditions have so far received such thorough investigation.

The yellow nail syndrome was described by P. D. Samman and W. F. White in 1964.[3] A characteristic abnormality of the nails is associated with abnormal peripheral lymphatics, as shown by lymphography. These findings have since been confirmed by L. Kreel.[4] J. Lorber and R. S. Illingworth[5] in 1960 described a patient aged 12 years, with oedema of the face, hands, and ankles thought to be of lymphatic origin, and photographs of his toenails showed the typical dystrophy. In the same year Everley Jones[6] described seven infants with oedema of the extremities ; five of these infants had symmetrical dystrophy of toenails.

The yellow nail as described by Samman and White[3] may be found on hands or feet or both symmetrically. The rate of growth is less than 0.2 mm. a week in contrast with the normal rate of 0.5 to 1.2 mm. per week. While these nails usually remain smooth, they may have transverse grooves, they are excessively curved from side to side, and the cuticles are defective. The change in colour usually affects the whole nail, but occasionally up to the proximal half of the nail may be of normal colour. The colour is usually pale yellow, but may be slightly greenish. The reason for the change of colour and the nature of the staining are not known, but the stain may be due to conjugated polyenes with an absorption band close to β carotene.[7]

Onycholysis may affect the nails, and separation may extend so far that the nail is shed, being replaced only very slowly. Partially separated nails show the characteristic hump. Of the 13 cases reported by Samman and White 4

[1] Kinmonth, J. B., and Taylor, G. W., *Ann. Surg.*, 1954, **139**, 129.
[2] Wallace, S., *et al.*, *Radiology*, 1961, **76**, 179.
[3] Samman, P. D., and White, W. F., *Brit. J. Derm.*, 1964, **76**, 153.
[4] Unpublished information.
[5] Lorber, J., and Illingworth, R. S., *Acta paediatr. (Uppsala)*, 1960, **49**, 748.
[6] Jones, E. H., *Arch. Dis. Childh.*, 1960, **35**, 192.
[7] Cook, B., unpublished information.
[8] Emerson, P. A., *Thorax*, 1966, **21**, 247.
[9] Hurwitz, P. A., and Pinals, D. J., *Radiology*, 1964, **82**, 246.

were investigated by lymphography and showed lymphatic abnormalities, but no one type of abnormality was present in all cases. It is interesting to note that abnormal lymphatics were detected in limbs in which there was no oedema, and this may indicate a generalized lymphatic abnormality varying in degree in different parts of the body.

P. A. Emerson[8] has drawn attention to the association of yellow nails with lymphoedema and pleural effusions. P. A. Hurwitz and D. J. Pinals[9] described two patients with pleural effusion and lymphoedema only. It is thought that an otherwise unexplained pleural effusion may occur in patients with chronic lymphoedema due to deficient lymphatic drainage of the pleural cavity. This may occur in association with yellow nails. Of the three cases of pleural effusion described by Emerson two had had recent attacks of bronchitis, after which they remained short of breath. One was subsequently shown to have a positive smear for tuberculosis, though the organism was never cultured and the patient did not respond to antituberculous therapy.

With the advance of lymphography abnormal lymphatics have been detected in patients with no sign of oedema, and it is suggested that oedema may develop after infection or trauma and give rise to an increased load on a deficient lymphatic drainage. The same may also be true in the pleural cavity, and certainly two of Emerson's patients had had an attack suggestive of recent infection. While lymphography from the arms and legs is now commonplace, visualizing the lymphatics draining the pleural cavity and many other regions of the body is either inadequate or impossible. But as techniques improve so may many diseases be shown to be due to lymphatic abnormalities, and the treatment of many conditions may be influenced by our greater understanding of this system.

Lung Transplantation in Man

It is now 16 years since the first mammalian lung was successfully transplanted experimentally. In dogs either the right or left lung may be removed and transplanted back into the same animal or another animal, anastomosing bronchus to bronchus, pulmonary artery to pulmonary artery, and atrial cuff containing the pulmonary veins to the left atrium. If the operation is performed within an hour ischaemic damage is unlikely to be severe. In fact, the lung is more resistant to ischaemic damage than the kidney. If both lungs are transplanted, or if one lung is transplanted and the other removed, there may be severe physiological disturbance.[2] Thus, sudden increase in blood flow through the transplanted lung due to obstruction of the opposite pulmonary artery may produce acute pulmonary oedema,[3] while total denervation of both lungs produces unusually slow and deep respiration owing to abolition of respiratory reflexes. In contrast to the kidney, where denervation affects function very little, an intact nerve supply to the lung is extremely important to health. Good results have been reported when no attempt has been made to anastomose the bronchial vessels or lymphatics.

When a lung is transplanted from one animal to another it undergoes immune rejection, as a transplanted kidney does. This results in destruction of the lung in an untreated recipient after a few days. As in the kidney, so in the lung parenchyma, there is perivascular infiltration of mononuclear cells. In animals it has been shown that azathioprine (Imuran) is an effective immunosuppressive drug, and animals with transplanted lungs have survived for considerable periods after treatment with it.[4] Three reports have been published of lung transplants in man.[5-7] The recipients were dying from irreversible pulmonary disease, and the transplanted lungs were taken from cadavers. However, all three recipients died soon after transplantation (18, 8, and 7 days after operation), and in two of the three cases there was severe bronchopneumonia in the transplant at post-mortem examination. In one case the bronchus of the transplanted lung was infarcted, possibly owing to inadequate bronchopulmonary arterial anastomoses. Though the transplanted lungs functioned satisfactorily in these cases, the clinical value of lung transplants has not yet been proved.

If one lung is transplanted in man the physiological disturbances are not severe, since the intact nerves of the other lung maintain the respiratory reflexes and the pulmonary arterial pressure need not be unduly increased. The major difficulty is infection. This may exist in the recipient's remaining lung, trachea, and bronchial stump, and in the lungs of cadaver donors, since it is unusual for a person to die with completely sterile lungs. Even if infection can be eliminated from these sites the transplanted lung in a patient treated with immunosuppressive drugs is likely to be highly susceptible to it. In fact, pulmonary infection has been a common and often fatal complication of renal transplantation in man owing to the immunosuppressive therapy. Successful transplantation of lungs may be difficult to achieve in man.

[1] Juvenelle, A. A., Citret, C., Wiles, C. E., and Stewart, J. D., *J. thor. Surg.*, 1951, **21**, 111.
[2] *Brit. med. J.*, 1963, **1**, 1302.
[3] Alican, F., and Hardy, J. D., *J. Amer. med. Ass.*, 1963, **183**, 849.
[4] Hardy, J. D., Eraslan, S., Dalton, M. L., Alican, F., and Turner, D., *Ann. Surg.*, 1963, **157**, 707.
[5] —— Webb, W. R., Dalton, M. L., and Walker, G. R., *J. Amer. med. Ass.*, 1963, **186**, 1065.
[6] Magovern, G. J., and Yates, A. J., *Ann. N.Y. Acad. Sci.*, 1964, **120**, 710.
[7] White, J. J., *et al.*, *Canad. med. Ass. J.*, 1966, **94**, 1199.

Relief from Hardship

Inflation hits hardest at those who cannot compete in the struggle to keep wages in line with prices. Doctors and their relatives are not alone in finding increasing difficulty in maintaining reasonable standards when the only income is from a pension or an annuity ; but the profession has a long tradition of looking after its own, and this tradition should be maintained. The Royal Medical Benevolent Fund reports that in 1965 there was a drop in income from subscribers and a revenue deficit of £6,869. The number of subscribers who died or retired in the year was 704.

Many younger doctors may be unaware of the work done by the fund. In addition to assisting elderly doctors and families with grants and annuities the fund also helps the widows and young children of doctors who die before they have established themselves and thus secured adequate insurance and pensions. The Ladies Guild provides more personal service with visits and small gifts of clothing and other necessities.

Seven-year covenants signed by doctors enabled the fund to recover over £5,000 in income tax in 1965 without extra cost to the subscribers, and the Honorary Treasurer will give details of this scheme to anyone who asks. Doctors might also like to contribute to the gifts that are distributed each year at Christmas. Details are given in a letter from the Honorary Treasurer, Mr. G. H. Bateman, at page 1268 of this week's *B.M.J.*