Any Questions?

We publish below a selection of those questions and answers which seem of general interest. It is regretted that it is not possible to supply answers to all questions submitted.

Standard of Hygiene and Poliomyelitis

Q.—*The trend of medical opinion is that the spread of poliomyelitis is probably by faecal contamination. Yet the W.H.O. expert committee's second report*[1] *associates poliomyelitis epidemics with a general improvement in hygiene and sanitation, and regards a fall in infant mortality below 75 per 1,000 live births as a warning sign. How may these apparently contradictory views be reconciled?*

A.—An inverse correlation between the height of the infant mortality rate and the intensity of polio epidemics appears to be true for many countries. It can be explained if the distinction between infection of the alimentary tract with polio virus and paralytic disease is borne in mind. Under conditions of bad sanitation faecal infection probably occurs at a very early age, when maternal antibodies are still present and able to prevent spread of virus from the gut to the C.N.S. Further episodes of oral infection create a solid active immunity, and widespread prevalence of the virus exists in the apparent absence of poliomyelitis as a disease. In highly civilized communities good sanitation prevents faecal infection, so that the first contact with virus occurs in infants, children, or even adults who possess no active immunity and no antibodies to protect the C.N.S. A sparing of infection with polio virus in infants by the hygiene of food and water therefore renders the community more liable to paralytic attacks. Virus is less prevalent but the disease is epidemic.

REFERENCE

[1] Expert Committee on Poliomyelitis: Second Report, *Wld Hlth Org. techn. Rep. Ser.*, 1958, No. 145.

Medical Blood Donors

Q.—*Are there good reasons why nurses and doctors who are healthy and between the ages of 18 and 65 should not enrol as blood donors?*

A.—Blood donation may produce acute or chronic effects. The acute effects are those, such as mild faintness and giddiness, associated with sudden depletion of blood volume; these effects last for only a few hours and are unlikely to be troublesome unless the donor has to engage in some strenuous task during this period. The chronic effects of blood donation are mainly due to iron depletion, and may be adequately counteracted by taking iron, and are in any case unlikely to be important if the intervals between donations are as long as six months, as is the case in the United Kingdom.

It may be argued that some doctors and nurses lead a particularly strenuous life, and that they should be spared any additional physical burden. Probably they should be discouraged from acting as blood donors, although they should surely be allowed to give blood occasionally (perhaps once a year) if they express a strong wish to do so.

Mortality from Whooping-cough

Q.—*What are the causes of mortality from whooping-cough in the very young, and what measures may be taken to prevent or treat these?*

A.—In the first year of life, especially in the first three months, babies with whooping-cough are especially liable to asphyxial attacks. Convulsions are also common: these may accompany the asphyxial attacks or they may occur independently and are then presumably caused by toxic damage to the brain. Bronchopneumonia is common, often with pulmonary collapse. Gastro-enteritis is especially dangerous.

Babies with severe whooping-cough need constant observation. If there is any tendency to asphyxial attacks they should be nursed in oxygen tents or boxes: this, along with sedatives, may lessen the asphyxial attacks and associated convulsions. No treatment seems to be effective for the second type of convulsions: when they are severe and repeated, the child usually lapses into coma. Lumbar puncture is certainly useless: sedatives and anaesthetics may produce some effect and cortisone has been tried, but without convincing results. Bronchopneumonia usually responds to the appropriate antibiotic and pulmonary collapse to postural drainage. Gastro-enteritis may respond to an antibiotic according to the organism responsible, but the condition should be prevented by rigid isolation. Cross-infection is in fact one of the main hazards for the infant with whooping-cough. First-class nursing, with especial attention to maintaining nutrition, is the most important item in the prevention of bronchopneumonia and gastro-enteritis. Once an attack has developed vaccines are, of course, useless.

NOTES AND COMMENTS

"Wind."—Dr. ISAAC EBAN (London, W.1) writes: Your expert's reply ("Notes and Comments," August 2, p. 340) deserves praise in being both correct and to the point. Most of the gas in the bowel, which can be a source of trouble to the diagnostic radiologist, is not intrinsic but extrinsic in origin. In other words, it comes less from the products of digestion than from air which is swallowed. Also, the more apprehensive the patient the more will be the amount of air swallowed. Therefore the sensible thing to do if one wants to keep the bowel gas at a minimum is to "tranquillize" the patient at the beginning of the investigation (this can be done by giving two tranquillizing tablets, preferably crushed) and also to prevent air-swallowing by making the patient bite on a cork during the whole investigation, for this makes swallowing practically impossible. Before doing the latter, it is, of course, advisable to secure the patient's co-operation by explaining to him the why and wherefore of the proceeding. The good results thus obtained can be made even better by the use, on the evening previous to the *x*-ray investigation, of two "contact-action" tablets, and the use, on the morning of the day of the investigation, of a suppository which acts by "contact" with the rectal mucosa. The gratifying absence or almost complete absence of gas in the bowel resulting from the use of the above technique is especially helpful in intravenous pyelography cases.

Correction.—The report of the discussion on the surgical treatment of congenital heart disease at the Section of Cardiology (July 26, p. 233) omitted a point made by the speakers to the effect that atrial septal defects should be repaired at present in special centres, where the operative mortality was low, and that the appearance of cardiac enlargement or of symptoms was an urgent indication for surgery. Dr. E. M. M. BESTERMAN emphasized that cardiac enlargement preceded symptoms in atrial septal defects and that this was an indication for surgery, regardless of a patient's youth. He mentioned that in a series of 100 cases operated on at the Middlesex Hospital there had been only three deaths.

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