To-day's Drugs

With the help of expert contributors we publish below notes on a selection of drugs in current use.

Lyovac Saluric (Merck Sharp and Dohme).—This is a special preparation of the sodium salt of chlorothiazide for intravenous injection. Each phial contains 0.5 g. chlorothiazide, and should be dissolved in 18 ml. sterile water before being injected. The solution will cause pain and inflammation if allowed to leak into the tissues, and care must be taken to avoid perivenous infiltration; it is unsuitable for subcutaneous or intramuscular injection.

Given intravenously, chlorothiazide causes a brisk diuresis within 15 minutes, which reaches its maximum in half an hour, and is usually complete in two hours. Usually the diuretic effect of chlorothiazide is best obtained by giving the drug orally, but intravenous administration is indicated if a patient with severe right-sided heart failure is nauseated or vomiting owing to hepatic engorgement and gastric congestion. Intravenous chlorothiazide may also be used for the relief of acute pulmonary congestion or oedema in sudden left ventricular failure causing paroxysmal nocturnal dyspnoea.

N.H.S. basic price : 0.5-g. phial, 17s. 6d.

(Continued from previous page)

School, Professor IAN AIRD has planned for it. Indeed, in 1946, before leaving Edinburgh, Professor Aird commissioned privately an architectural drawing of a suitable two-story building. This he hung on his office wall in the hope that some philanthropist would see it and be interested. The actual plans were drawn in 1950. But it was 1956 before funds became available. The Wellcome Trust made a generous gift of £80,000 towards the cost, and the remaining £55,000 was provided by London University, through the Postgraduate Medical Federation.

Laboratory Suites

The Experimental Surgical Unit occupies the fifth, sixth, and eighth floors of the impressive nine-story building illustrated. It will be closely linked with other units housed there. These include three Medical Research Council Units—the Radiotherapeutic Research Unit with its linear accelerator and cyclotron, and two units concerned respectively with microbial genetics and radio-histopathology—and the Postgraduate Medical School's Department of Isotope Chemistry.

On the fifth floor there is a reception office, workshop, biochemical laboratories, two suites of laboratories for the lecturers in experimental surgery and in surgical physiology, three other experimental laboratories, a library, pathology laboratory, conference room, offices, etc. On the sixth there are two operating theatres of a design and construction which matches any modern hospital operating room, with sterilizing room, anaesthetic room, x-ray and dark rooms, and dressing rooms. A unique feature of this floor is a central recording room in which will be housed the elaborate electronic instruments now indispensable in the recording of physiological processes. Impulses can be brought by wire from any room in the building to be centrally recorded. On this floor also there is a large experimental laboratory for non-survival experiments. All isotope work will be done by arrangement with the Medical Research Council in their radio-histopathology laboratories on the seventh floor.

On the eighth floor there is accommodation for large animals. The kennels are particularly commodious and well planned. On this floor also there are kitchens and rooms for the storage of food and bedding, an isolation room, and a dressing room. On the roof there is a large exercise yard for animals. The view from the roof is probably unparalleled in West London.

Correspondence

Conjoined Twins

SIR,—I was interested in the suggestion of Professor Ian Aird (*Journal*, May 23, p. 1313), on which you comment in your annotation (p. 1337), that the frequency of conjoined twins may be particularly high in Nigeria. It is known that the binovular twinning rate is also very high in Nigeria, at least among the Yoruba. Thus Lawson reports that among 13,423 booked maternities at the Adeoyo Hospital, Ibadan, in the period 1953–6, there were 603 twin maternities of which 268 were unlike-sexed and 335 like-sexed. (Data for 1953–4 are from Lawson and Lister, 1955¹; data for 1955–6 are from J. B. Lawson, personal communication.) Weinberg's method of calculation gives binovular and uniovular twinning rates of 40 and 5 per thousand respectively, compared with rates of about 8 and 4 per thousand among Europeans. Patients at the Adeoyo Hospital are mostly Yoruba, and it is thought that there is little or no selection among booked as opposed to emergency cases. Twinning rates for other Nigerian tribes are not available, and may in any case have no connexion with the aetiology of conjoined twins, but it would seem worth while to record these figures in this connexion.—I am, etc.,

Dept. of Social and Preventive Medicine, M. G. BULMER.
University of Manchester.

REFERENCE

- ¹ Lawson, J. B., and Lister, U. G., *Clinical Report of the Department of Obstetrics, University College, Ibadan, April 1, 1953–Dec. 31, 1954, 1955*. Ibadan.

Cushingoid Reaction to Triamcinolone

SIR,—Triamcinolone was introduced in 1957 at the International Congress on Rheumatic Diseases in Toronto.¹ Interest in this new steroid has been stimulated by the maker's statement (1958) that side-effects such as oedema, hypertension, sodium retention, and hirsutism were minimal. The patient may lose weight from increased sodium excretion.² However, the patient described below showed acute cushingoid features with oedema within five weeks of starting therapy on a minimal dosage.

A female patient aged 42 years was first seen in 1950 with rheumatoid arthritis. Moderate doses of salicylates and vitamin C did not effect prolonged improvement, and large doses of salicylates caused gastric irritation and other side-effects. In April, 1957, whilst still on salicylates and oral iron she was just able to walk painfully around the house and had not been outside for five years. She was given a short course of chloroquine phosphate B.P. with temporary improvement before this preparation also caused side-effects.

In November, 1958, her symptoms worsened and there was painful deformity of hands and wrists, with involvement of the knees and the temporo-mandibular joints. Finally it was decided to try triamcinolone, and therapy was commenced on the recommended dosage of 16 mg. daily in four divided doses for a period of five days. Dosage was gradually

reduced by decrements of 2 mg. every two days, and she was stabilized on a dosage of 8 mg. daily (2 mg. four times daily).

Improvement in the rheumatoid arthritis was dramatic. She now managed her ordinary housework comfortably and for the first time in many years she was able to walk outside. The improvement continued and she was seen at 3-4 day intervals.

Five weeks after commencing treatment she noticed an increase in weight and a change in facial appearance. Examination disclosed a typical "moon-shaped" face with pitting oedema of forehead (see Fig.). The blood pressure at the start of treatment was 130/80, but this was now raised to 160/100. There was also oedema of arms and legs and she showed moderate euphoria. The serum sodium, potassium, and chloride, and the results of an oral glucose tolerance test, were within normal limits. The dosage of triamcinolone was gradually reduced to 4 mg. daily, which did not completely relieve the symptoms of her rheumatoid arthritis compared with the former level of 8 mg. daily. The "moon face" has diminished but has not entirely regressed even after four weeks on this reduced dosage. The oedema of arms and legs completely disappeared, but some euphoria remains.

This case shows that even with a low dosage of triamcinolone cushingoid features may develop. Hart³ has shown that triamcinolone also exacerbates peptic ulcer symptoms. Caution is therefore urged in the use of this steroid.—We are, etc.,

I. MCLEAN BAIRD.

Barnsley, Yorks.

N. M. PIERCY.

REFERENCES

- 1 Freyberg, R. H., Bernsten, C. A., Hellman, L., and Gallagher, T. F., *Proceedings of the 9th International Congress on Rheumatic Diseases*, 1957, p. 79.
- 2 Freyberg, R. H., Bernsten, C. A., and Hellman, L., *Arthr. and Rheum.*, 1958, 1, 215.
- 3 Hart, F. D., Golding, J. R., and Burley, D., *Lancet*, 1958, 2, 495.

Skin Disinfection

SIR,—We read your annotation (*Journal*, May 30, p. 1398) on skin disinfection with interest. We have been testing disinfectants and obtained the following results:

Solutions of "hibitane" (chlorhexidine diacetate) 0.5% (1/200) in 70% spirit, hibi-tane 0.5% (1/200) and 10% formaldehyde in 70% spirit, "iodevan" (conc.) and a 1/10 dilution of iodevan were tested against a series of organisms. Resistant strains of *Staphylococcus aureus* (coagulase positive), an aerobic spore bearer, *Pseudomonas pyocyanea*, a coliform bacillus, proteus, and *Clostridium tetani* were chosen (resistant to 1/80 phenol at 5 minutes and 1/90 phenol at 15 minutes). They were incubated in broth at 37° C. for three successive days before use.

Screening tests were done by inoculating 50 ml. sterile broth, first with a loopful of antiseptic and then with the test organism and incubating for 48 hours. No growth indicated a carry-over reaction of the antiseptic inhibiting growth. It was found that with *Staphylococcus aureus* and an aerobic spore bearer, using hibi-tane 0.5% (1/200) in 70% spirit and hibi-tane 0.5% (1/200) and 10% formaldehyde in 70% spirit, a carry-over reaction was present, and thus in these two instances the concentration of hibi-tane used was 0.05% (1/2,000).

Five ml. antiseptic and 0.5 ml. test organisms were thoroughly mixed by shaking. With a standard loop and at fixed times (see Table) 50 ml. of sterile broth was inoculated. Controls were also set up and both incubated for 48 hours at 37° C. The bottles in which no growth occurred were reinoculated with the test organisms to recheck for any carry-over reaction of the antiseptic.

It was found that hibi-tane in spirit and hibi-tane with formaldehyde in spirit gave the same results except in the case of the spore bearers, where the latter was more

	30 sec.	1 min.	2 min.	3 min.	8 hr.	17 hr.	24 hr.
<i>Staph. aureus</i>							
0.05% (1/200) hibi-tane	+	—	—	—			
+ formaldehyde ..	+	—	—	—			
0.05% (1/200) hibi-tane	+	+	—	—			
Iodevan ..	+	+	—	—			
1/10 iodevan ..	+	+	—	—			
Aerobic spore bearer							
0.05% (1/2,000) hibi-tane + formaldehyde	+	+	+	+	+	—	
0.05% (1/200) hibi-tane	+	+	+	+	+	+	+
Iodevan ..	+	+	+	+	+	—	
1/10 iodevan ..	+	+	+	+	+	—	
<i>Bact. coli</i>							
0.5% (1/200) hibi-tane	—	—	—	—			
+ formaldehyde ..	—	—	—	—			
0.5% (1/200) hibi-tane	+	+	—	—			
Iodevan ..	+	+	—	—			
1/10 iodevan ..	+	+	—	—			
<i>Proteus</i>							
0.5% (1/200) hibi-tane	—	—	—	—			
+ formaldehyde ..	—	—	—	—			
0.5% (1/200) hibi-tane	+	+	—	—			
Iodevan ..	+	+	—	—			
1/10 iodevan ..	+	+	—	—			
<i>Ps. pyocyanea</i>							
0.5% (1/200) hibi-tane	—	—	—	—			
+ formaldehyde ..	—	—	—	—			
0.5% (1/200) hibi-tane	+	+	—	—			
Iodevan ..	+	+	—	—			
1/10 iodevan ..	+	+	—	—			
<i>Cl. tetani</i>							
0.5% (1/200) hibi-tane	+	+	+	+	+	—	
+ formaldehyde ..	+	+	+	+	+	+	+
0.5% (1/200) hibi-tane	+	+	+	+	+	+	+
Iodevan ..	+	+	+	+	+	—	
1/10 iodevan ..	+	+	+	+	+	—	

+ = Growth. — = No growth.

efficient. Also the iodevan (conc.) and a 1/10 dilution of iodevan gave the same results. Keeping the hibi-tane and formaldehyde solution for one month had no effect on its antiseptic properties.—We are, etc.,

The General Hospital,
Birmingham, 4.

M. J. MEYNELL.
M. P. HENDERSON

SIR,—Without in any way suggesting that the careful preparation of the skin before injection is not necessary in hospital, it may be of interest to record that during 37 years in general practice I never prepared the skin in any way whatever (except when, very rarely, I wished to impress the patient), and never had any trouble. Furthermore, I only sterilized the syringe by rinsing it out repeatedly with boiling or near-boiling water. The doctor I joined, 20 years my senior, did not even go so far as that, but only rinsed out the syringe successively in two cups of hot water. He did have one septic arm in the 4½ years I was with him.

It is impossible to believe that he and I were just lucky over so many years. Surely the answer is that patients develop an immunity to their own bacterial flora, and in general practice ordinary care and cleanliness on the part of doctor and nurse is enough to avoid the chance of introducing foreign bacteria to which the patient has little or no immunity. It is obvious, of course, that the results would be very different if the doctor were a carrier of virulent bacteria, but would such an unfortunate individual be suitable for general practice even with the most stringent precautions?—I am, etc.,

Bracknell, Berks.

L. G. JACOB.