deepest section of the paraffin-embedded block (> 4 mm from the cortex).

Although our definition of excess fibrosis is "imprecise in a histquantitative setting" we were able to detect differences in osteoïd fibrosa from other forms of bone resorption which may not be related to high circulating parathyroid hormone levels. The failure of the bone resorption "rate" to fall after a response to bisphosphonates in dialysis patients described by Mr. Carroll and his colleagues3 could indicate that such patients had another form of resorptive bone disease such as osteoporosis.

However sophisticated the scanning techniques, the sole use of surface criteria may be unreliable, particularly when osteoid is considered. Measurement of the surface coverage by osteoid is related to the volume of bone, the magnification, and the number of trabeculae in the field, which will be limited in the 3 mm diameter specimens used in Williams's method. It is hazardous to define normality on the basis of a single criterion. We would agree whole-heartedly that techniques should be standardized in such a confused field, but it is important that variables should be chosen particularly as bone biopsy is the only effective tool for diagnosing osteomalacia.

With regard to Mr. Carroll's comments on osteoid, we were fully aware that production of the key vitamin D metabolite 1,25-dihydroxycholecalciferol is likely to be decreased whether both kidneys have been removed or remain virtually functionless in situ. However, we doubt that there is the simple clinical relationship between renal glomerular function, vitamin D metabolism, and bone disease which Mr. Carroll infers from his study of transplant patients. Our sequential studies show that osteomalacia can heal spontaneously without change in renal function. In one nephrectomized patient, and in several others with intact but poorly functioning kidneys, this improvement was associated with deteriorating hyperparathyroid bone disease. Furthermore, others have described nephrectomized patients with evident untapped function of vitamin D supplements for several years with no sign of osteomalacia in their bone histology.—We are, etc.,

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How Infectious is Gonorrhoea?

Sir,—Dr. W. K. E. Bernfeld, (21 October, p. 173) is right to ask "How infectious is gonorrhoea?" and Dr. W. F. Felton (18 November, p. 431) is right to stress the need to elucidate this question. On a priori grounds one would expect, in the event of coitus being unguarded by mechanical means, that the infected male would be more infectious to the uninfected female than vice versa. His gonococci may be considerably inoculated upon the delicate culture medium (cervical epithelium), whereas her gonococci would only reach his urethral epithelium by seepage in the reverse direction. In many instances urination or washing by the male soon after coitus would dispose of the invading organisms. Some figures for 1970 from Newcastle upon Tyne are relevant to the correspondence concerning the infectivity of gonorrhoea.3 Of 97 female "subsequent" contacts infected at risk from known male cases—72 (74%) were found to be infected. This figure would be greater were it not for our practice of treating such "at risk" patients epidemiologically when their initial treatment has not been adequate. Male "source" contacts of known female cases are harder to come by owing to the overt nature of male gonorrhoea, which results in the majority of such contacts having already been treated. "Subsequent" male contacts are even fewer in numbers owing to the propensity of promiscuous female patients to "cross-name" those who have named them as the source of their infections. Of 28 male "source" contacts, 16 (67.8%) were found to have gonorrhoea. Of 11 "subsequent" male contacts, 6 (54.5%) had gonorrhoea. The figures are small but suggest the validity of this thesis elucidated above.

If the infectivity of females for males were low the high venereal disease rate and climbing graphs would suggest a vast source of untapped female gonorrhoea to be sought out by contact tracing and screening techniques. With 87% of available female "source" contacts and 97% of available "subsequent" contacts having been traced in Newcastle; with an overall 80-4% venereal disease involvement being found in these contacts; and with a 1:6:1 male:female gonorrhoea ratio amongst all our cases, one would expect Newcastle's venereal disease problem to be all but solved. However, contact tracing merely keeps the rising graph at a lower level than would otherwise be the case (80% of the national average). Moreover, routine screening of obstetric and gynaecological cases is productive of an infinitesimal amount of gonorrhoea, as figures yet to be published will show. This may be related to the success of Newcastle's venereal disease efforts in the region. What emerges from these findings is that the reservoir of untapped gonorrhoea is not so large as has hitherto been surmised and that the presumption therefore that gonorrhoea is highly infectious seems fully justified.—I am, etc.,

A. S. WIGFIELD
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Referring Patients for Electrolysis

Sir,—In his letter (2 December, p. 551) Dr. I. W. Caldwell, Chairman of the Dermatologists Group Committee, draws attention to the decision of the Central Ethical Committee that it is now proper for doctors to refer patients requiring electrolysis to members of the two main professional groups which ensure adequate standards of training in this form of treatment.

He criticizes the hazards sometimes given to such patients and ends darkly with the remark that he and his committee regret and dissociate themselves from theposing of electrolysis in the cases of M.A. and M.A., family doctor booklets. So Now You Know about Your Skin. As its author, I should be glad to learn which paragraphs are offensive. On pp. 18-19 I state that most women with superfluous hair do not have glandular abnormality. This is meant to reassure such women that it are not un feminine. On p. 21 I state that electrolysis is not undertaken by many hospitals and has to be carried out in commercial clinics. I warn against the use of "home kits" for self-treatment and assert that chemical depilatories are likely to irritate facial skin. I mention that "if not too bad," superfluous hair may be removed by plucking or the use of wax; or in the worst cases by shaving. It is presumably the mention of the razor to which Dr. Caldwell objects. Surely he and his committee are aware that there are women who shave their legs or armpits, not with pleasure but without disgust? I do not state or imply that shaving is the simple answer to facial hirsuteness in women. I affirm that there are the cases in the growth of hair is so heavy that electrolysis is impracticable and "shaving provides the best available, though admittedly inadequate, solution."—I am, etc.,

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2 R. S. J., 1936, 14, 198.

3 B. S., 1937, 174, 216.

Targic Dilemma

Sir,—I think that all who read the reports in the press concerning the child in Hull suffering from spina bifida will welcome your thoughtful leader "Targic Dilemma" (7 December, p. 19). We are interested in the answer of cases of spina bifida poses moral problems that are even more difficult than the medical ones. All concerned with the treatment and care of these patients will therefore welcome the ray of hope for the prevention of this condition that is raised by the preliminary report incriminating "blighted potatoes" as a possible cause of this malformation.—I am, etc.,

Rex Binning
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Idiopathic Scrotal Gangrene

Sir,—I was most interested to read the report by Messrs. B. M. Frier and A. D. Howie (7 October, p. 26) of a case of scrotal gangrene in asympomatic myeloma as I have recently published a study of eight cases of Fournier’s (scrotal) gangrene.1 In the case described left orchidectomy was performed three days after admission when the rapidity of gangrana and scrotal resection was recognized, and Randall3 with his experience of 16 cases, reported that a new scrotum is formed with normal sensation by secondary suture without orchidectomy.

Many years ago castration was advocated as a part of the surgical management of Fourner’s gangrene to prevent the rapidity of gangrana and scrotal resection was recognized, and Randall3 with his experience of 16 cases, reported that a new scrotum is formed with normal sensation by secondary suture without orchidectomy.

Gangrene of the scrotum has constantly defied attempts to find a unified and
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generally accepted view of aetiology. Most of my cases appeared to be non-specific in
fection, and two of them followed intravenous
injection. It does appear that the disease is
associated with poor hygiene. Fournier's
gangrene was fairly common in Europe and
North America until the end of the 19th
century but is now rarely reported from these
areas. More recent reports of more than one
case have come from areas with poor living
standards.1

It is suggested that the patient described
may have had an increased tendency to
vascular insufficiency because of a high titre
of cold haemagglutinins in his serum. It is
possible that the hypotension which the patient
was said to have suffered was enough to precipitate gangrene of the
scrotum by vascular thrombosis. Several
authors have proposed that the cause of
Fournier's gangrene is an arterial thrombosis
precipitated by an infection, analogous to
cavernous sinus thrombosis. This case
ought to be compatible with the thrombosis
theory of aetiology—I am, etc.,

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2. Allen, J., Journal of Cutaneous and Genito-
urinary Medicine, 1946, 45, 53.


6. Suchdev, V. Y., and Khanna, B. C., Indian Journal of
Surgery, 1949, 11, 178.

7. Cameron, J., British Journal of Urology, 1951, 11, 68.


Asthma in the Elderly

Sir,—I briefly comment on two points in
the paper by Drs. H. Y. Lee and T. B. Stretton
(14 October, p. 93).

Reversible obstruction of the airways occurs very often in both young and elderly
patients suffering from chronic non-specific
lung disease. The attacks, especially when
repeated, are mostly accompanied by signs of
alveolar hypoventilation. I feel that the 15 elderly patients studied by the authors
fulfilled only partly the criteria for the
diagnosis of asthma—no hypercapnia and no
reversibility of obstruction were found in
most of them. Diminished vital capacity may indicate a restrictive ventilatory disrup-
tance. I wonder if measurement of the FEV1,
alone is suitable for the diagnosis of obstruc-
tion; if the residual volume is increased, a
low FEV1 may simply result from high intrathoracic gas volume. In such a case, and
in case of conflicting or discrepant findings,
diagnosis of asthma—no hypercapnia and no
reversibility of obstruction were found in
most of them. Diminished vital capacity may indicate a restrictive ventilatory disrup-
tance. I wonder if measurement of the FEV1,
alone is suitable for the diagnosis of obstruc-
tion; if the residual volume is increased, a
low FEV1 may simply result from high intrathoracic gas volume. In such a case, and
in case of conflicting or discrepant findings,

8. Catterjee, S. 
Department of Respiratory Physiology,
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Bicarbonate Solutions for Infusion
Sir,—It has come to our attention that
14% sodium bicarbonate infusion solutions
are no longer available commercially in the
U.K. and that the lowest concentrations being produced regularly are 2-74% (Poly-
fusor—Boots) and 4-2% (Travenol Labora-
tories—Baxter). These firms may produce 14% sodium bicarbonate as a special order
from time to time but this is not reliable. It is
therefore important that all hospitals which
may at some time or another admit acutely
poisoned patients should review their pro-
cedures for forced alkaline diuresis, as
many of these regimes include 14% sodium bicarbonate solution.

Sodium bicarbonate solutions are used in
forced alkaline diuresis regimes to promote
alkalinization of the urine and therefore
might appear that any procedure would
adequate which adjusts the proportion of
sodium bicarbonate to the total infusion
volume to give a urinary pH of 8. (The pH
buffering capacity of 14% sodium bicarbonate
is not suitable, in our experience, for this purpose and,

if a pH meter is not available, narrow-range
indicator papers should be used.) However,
owing to the length of time required for the
renal compensation of acid/base dis-
turbances, the patient may become more
alkalaiemic than hitherto before producing
a urinary pH of 8. Consequently, if these more
concentrated solutions are used. In our ex-
perience there may be a transient rise in the
blood levels of phenobarbitone when the
pharmacological problem is first encountered.
We therefore develop a base excess, and we are concerned
that this rise may be considerably higher
if the rate of infusion of alkali in a forced
alkaline diuresis regimen is increased at any
time while the sodium bicarbonate concentration
which would overcome this difficulty is
to be given the sodium bicarbonate simultaneously
with other infusion fluids connected with
a Y-piece, but we would be interested to know
what other centres are planning to do.—We are,
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Semmelweis University,
Budapest


2. Lányi, M., Deutsche Medizinische Wochenschrift,
1968, 93, 1223.

3. Kay, A. B., Stiehl, D. J., and Austen, K. F.,
Journal of Allergy, 1971, 47, 118.

4. MIKLÓS LANTY

5. Kay, A. B., Stiehl, D. J., and Austen, K. F.,
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Journal of Allergy, 1971, 47, 118.

13. Kay, A. B., Stiehl, D. J., and Austen, K. F.,
Journal of Allergy, 1971, 47, 118.

Journal of Allergy, 1971, 47, 118.