Plasma 11-OHCS and Questionary Results (Means $\pm$ S. D.)

N	A.M. Plasma 11-OHCS (μ g./100 ml.)					N Score Eysenck Personality Inventory
	Basal	Post Dexa- methasone	Zung Self Rating Score	Hamilton Depression Score	Taylor Anxiety Score	
10	21.4 (6.9)	4.4 (1.4)	54.3 (9.0)	21.3 (3.9)	32.6 (7.8)	17.3 (4.0)
6	19.9 (6.8)	19.1 (5.8)	54.6 (13.2)	22.0 (5.3)	27.1 (8.9)	18.4 (2.8)

At the end of one month the ten suppressors were well, all having responded to the particular antidepressant drug and not having relapsed, at that time, with placebo substitution. The six non-suppressors, after one month's antidepressant treatment had not improved and were all then treated with E.C.T. with subsequent improvement.

This small study suggests that poor short-term response to antidepressants is related to hypothalamic dysfunction. This lack of response and the presence of hypothalamic dysfunction could not have been predicted from clinical or questionnaire data. Further studies of specific treatment responses and tests of hypothalamic function are needed in depressed patients. If these findings are

replicated, they may be of clinical value in deciding on appropriate treatment for the particular patient and may help in elucidating the action of antidepressants.—We are, etc.,

W. R. McLEOD.
B. J. CARROLL.
BRIAN DAVIES.

Department of Psychiatry,
University of Melbourne,
Royal Melbourne Hospital,
Victoria, Australia.

REFERENCES

- 1 Carroll, B. J., Martin, F. I. R. and Davies B., *British Medical Journal*, 1968, 3, 285.
- 2 Carroll, B. J., *British Medical Journal*, 1969, 3, 27.
- 3 *British Medical Journal*, 1970, 1, 644.

Perioral Dermatitis

SIR,—Drs. J. L. Verbov and E. Abell (6 December, 1969, p. 621) have suggested that the syndrome which has become known as perioral dermatitis is iatrogenic. They base this suggestion on their observation that their patients with this syndrome had been applying a topical corticosteroid.

We join in deploring the current abuse of corticosteroids, which has reached such proportions that few patients referred to dermatological departments with any skin disorder have not been so treated. Drs. Verbov and Abell have not, however, established the nature of the condition from which their patients were suffering before the corticosteroids were prescribed.

In the past eight weeks we have examined 25 patients with perioral dermatitis. Six of the patients had not applied a corticosteroid before their first attendance. Of the remaining 19 patients, 17 gave a clear account of lesions compatible

with perioral dermatitis present for from two weeks to four months before corticosteroids were first prescribed. One patient had used corticosteroids intermittently for acne and one for a rash not reliably identifiable from her description of the lesions. Dr. N. Hjorth from the Finsen Institute, Copenhagen, writes in a personal communication that his experience and conclusions agree with our own.

Topical steroids can provoke pustular episodes in acne and rosacea, and they may aggravate perioral dermatitis, but they cannot be incriminated as the cause of that syndrome. Though a rebound exacerbation may occur when the steroids are discontinued we have found the condition relatively easy to cure with oral tetracyclines.—We are, etc.,

Cambridge

Amersham, Bucks.

A. J. ROOK.

D. S. WILKINSON.

Chemotherapy of Bronchitis

SIR,—The action of clindamycin on *Haemophilus influenzae*, among other micro-organisms, has been brought into focus once more by the recent paper of Dr. I. Phillips and others (11 April, p. 89). Moreover, your leading article on chemotherapy of bronchitis (17 January, p. 125) in its final paragraph assumes that, among other antibacterial drugs, 7-chloro-7-deoxy-lincosamin (clindamycin, Dalcacin) offers little or no advantage in the treatment of bronchitis, similar to erythromycin. It is disturbing to the scientifically minded that this assumption has not been declared as such, but is stated as a safe prediction—almost as a fact—although at present there is inadequate evidence for such prediction.

The usefulness of an antibacterial drug depends on several features. These are absence of serious side-effects, good absorption, maintenance of adequate blood levels

for an adequate length of time, low serum protein binding, adequate concentrations in tissues or body fluids at or near the site of infection, and minimum inhibitory concentrations (M.I.C.) of the drug for pathogenic microorganisms within the range of levels obtainable in body fluids and tissues. Although in the case of clindamycin many of these factors are favourable, so far only serum levels but not lung tissue or sputum levels obtainable with his drug have been reported.

Meyers *et al.*¹ reported M.I.C.s for *H. influenzae* ranging from 1.2 to 3.0 μ g./ml. and Oppenheimer and Turck² from 0.5 to 5.0 μ g./ml.; in other words, well within the range of peak and average serum levels. However, the M.I.C.s recorded in other observations, including those of Dr. Phillips and colleagues, were rather high, ranging from 3.0 to 50.0 μ g./ml.^{3,4} These conflicting

results had created a rather intriguing situation in which we decided to test the sensitivity to clindamycin of 50 freshly isolated and correctly identified *H. influenzae* strains. In our hands the M.I.C.s fell within the limits of 0.12 to 4.0 μ g./ml., and 42 strains (84%) were sensitive to 2 μ g./ml. or less. Our investigations did not explain the discrepancies in the literature, nor were they designed to do so. Nevertheless, as peak serum levels of clindamycin are about 6 μ g./ml. and average levels are about 3 μ g./ml. the possibility exists that this drug may be of use in bronchitis with *H. influenzae* as a pathogen. No certain prediction one way or the other, however, can be made at this stage as any valid statement is dependent on adequate sputum levels still to be determined, perhaps followed by comparative and double-blind clinical trials in bronchitis.

We felt, therefore, that the true situation regarding the new lincomycin derivative should be placed before the readers of the *B.M.J.* None of the considerations outlined above are applicable to the considerable inhibiting action it has on other potential pathogens in bronchitis—i.e., *Staphylococcus aureus*, pneumococci, and beta-haemolytic streptococci.

It is perhaps of some interest that erythromycin, according to our results,⁵ is of considerable in-vitro activity against *H. influenzae*, and may deserve a place in the armamentarium against bronchitis, particularly when combined with a sulphonamide.⁶—We are, etc.,

K. ZINNEMANN.
JOYCE FRAZER.

Bacteriology Department,
School of Medicine,
Leeds, Yorks

REFERENCES

- 1 Meyers, B. R., Kaplan, K., and Weinstein, L., *Applied Microbiology*, 1969, 17, 653.
- 2 Oppenheimer, S., and Turck, M., *American Journal of the Medical Sciences*, 1968, 256, 314.
- 3 Garrison, D. W., DeHaan, R. M., and Lawson, J. B., *Antimicrobial Agents and Chemotherapy*, 1967, 397.
- 4 McGehee, R. F., jun., Smith, C. B., Wilcox, C. and Finland, M., *American Journal of the Medical Sciences*, 1968, 256, 279.
- 5 Zinnemann, K., *Ergebnisse der Mikrobiologie, Immunitätsforschung und Experimentelle Therapie*, 1960, 33, 307.
- 6 Allibone, E. C., Allison, P. R., and Zinnemann K., *British Medical Journal*, 1956, 1, 1457.

SIR,—After reading the recent article by Dr. I. Phillips and his colleagues (11 April, p. 89) it would seem that any possible role for 7-chloro-lincosamin (clindamycin) in the treatment of bronchitis would depend on its activity against *Haemophilus influenzae*, and its ability to produce inhibitory concentrations in sputum.

I have recently carried out a small series of investigations with clindamycin, the results of which might be of interest at this stage. Of 12 strains of *H. influenzae* tested, five had a minimal inhibitory concentration (M.I.C.) of less than 1.0 μ g./ml., and the most resistant were inhibited by 4.0 μ g./ml. In comparison, the M.I.C. of lincomycin for the 12 strains was 8.0 μ g./ml.

The results of sputum levels have been determined in five patients and are as follows: