

# BRITISH MEDICAL JOURNAL

MAR 14 1981

SUPPLEMENT SECTION  
CURRENT SERIAL FEATURES

SATURDAY 14 MARCH 1981

## LEADING ARTICLES

Gastric ulcer: benign or malign?.....	843	Health services research.....	845
Hypernephroma.....	844	The senile amyloidoses .....	846

## CLINICAL RESEARCH • PAPERS AND SHORT REPORTS • PRACTICE OBSERVED

Evidence for a circulating sodium transport inhibitor in essential hypertension	847
L POSTON, R B SEWELL, S P WILKINSON, P J RICHARDSON, R WILLIAMS, E M CLARKSON, G A MACGREGOR, H E DE WARDENER .....	847
Glucose turnover and metabolic and hormonal changes in ethanol-induced hypoglycaemia	849
N M WILSON, P M BROWN, S M JUUL, S A PRESTWICH, P H SÖNCKSEN .....	849
Biochemical tests for diagnosis of phaeochromocytoma: urinary versus plasma determinations	853
P F PLOUIN, J M DUCLOS, J MENARD, E COMOY, C BOHUON, J M ALEXANDRE .....	853
Pelvic inflammatory disease and the intrauterine device: findings in a large cohort study	855
M P VESSEY, D YEATES, ROSEMARY FLAVEL, KLIM MCPHERSON .....	855
Maintenance of weight loss in obese patients after jaw wiring	858
J S GARROW, G T GARDINER .....	858
Treatment of severe aplastic anaemia with antilymphocyte globulin or bone-marrow transplantation	860
BRUNO SPECK, ALOIS GRATWOHL, CATHERINE NISSEN, URS LEIBUNDGUT, DONATELLA RUGGERO, BRUNO OSTERWALDER, HANS PETER BURRI, PIERRE CORNU, MICHEL JEANNET .....	860
Tea consumption: a cause of constipation?	864
LISELOTTE HØJGAARD, SUSANNE ARFFMANN, MAJA JØRGENSEN, EINAR KRAG .....	864
Pseudomembranous colitis after treatment with metronidazole	864
GEORGE THOMSON, ALISTAIR H CLARK, KAY HARE, WALTER G S SPILG .....	864
Mefenamic acid nephropathy: further evidence	865
P L DRURY, L G ASIRDAS, G V BULGER .....	865
Women and duodenal ulcer	866
NORMAN R PEDEN, ERIC J S BOYD, K G WORMSLEY .....	866
Pitfalls in Practice: Employment law—II	867
NORMAN ELLIS .....	867
Medical Records—I: A personal view	869
KEITH WALKER .....	869
Sex Problems in Practice: What can a general practitioner do?	873
MICHAEL COURtenay .....	873

## MEDICAL PRACTICE

Percutaneous needle biopsy of the lung	875
D J ALLISON, ANNE P HEMINGWAY .....	875
Dealing with the Disadvantaged: Communicating with patients with a language problem	878
JANET THRUSH .....	878
Pollution and People: Contamination of food: mycotoxins and metals	879
DAPHNE GLOAG .....	879
Domiciliary night nursing service: luxury or necessity?	883
M H MARTIN, M ISHINO .....	883
ABC of ENT: Nasal obstruction	886
HAROLD LUDMAN .....	886
Four years' experience of an interim secure unit	889
JAMES HIGGINS .....	889
Secondary prevention in survivors of myocardial infarction	890
JOINT RECOMMENDATIONS BY THE INTERNATIONAL SOCIETY AND FEDERATION OF CARDIOLOGY SCIENTIFIC COUNCILS ON ARTERIOSCLEROSIS, EPIDEMIOLOGY AND PREVENTION, AND REHABILITATION .....	894
Any Questions?	882, 885, 896
Materia Non Medica—Contributions from ROBERT C TAYLOR, C R TRIBE AND P A BACON, PENELOPE A BROUGHAM .....	893
Medicine and Books .....	897
Personal View	900

CORRESPONDENCE—List of Contents .....	901
---------------------------------------	-----

OBITUARY .....	913
----------------	-----

## NEWS AND NOTES

Views .....	911
Medical News .....	912
BMA Notices .....	912

## SUPPLEMENT

The Week .....	915
Mrs Short tackles the numbers game	916
WILLIAM RUSSELL .....	916
From the Council: Community health doctors' report endorsed .....	917
The robustness of the London Health Planning Consortium model	920
JOHN CHARLTON .....	920
What price the London Hospital Plan?	922
G H WARD, P A WEST .....	922
Correction: Milage payments for hospital doctors .....	923
Employment of locums .....	924

## CORRESPONDENCE

<b>Beta-blockers in asthma</b>	
Anne E Tattersfield, FRCP; C Skinner, MRCP; D A Jackson, MB	901
<b>Effect of antiepileptic drugs on the hypothalamic-pituitary axis</b>	
J Dana-Haeri, MD, and A Richens, FRCP	902
<b>Double pathology as a cause of occult gastrointestinal blood loss</b>	
K D Bardhan, MRCP; P K Datta, FRCS; M Davies, MRCP	902
<b>Status epilepticus treated by barbiturate anaesthesia</b>	
J D Miller, FRCS	903
<b>How many beds do we really need—for example, in neurosurgery?</b>	
W B Bennett, FRCS; Carol B Sedzimir, FRCS(Ed), and others; Mona V Rivlin, MFCM; J J Jones, AFCCM; R D Weir, FFCM, and G H Mooney, MA; G P A Winyard, MRCP, and others	903
<b>A matter of life and death</b>	
K L Gupta, MRCP	904
<b>Epidemic of fractures during period of ice and snow</b>	
J G Avery, MFCM	905
<b>How dangerous are falls in old people at home?</b>	
P H Millard, FRCP	905
<b>Congenital rubella affecting an infant whose mother had rubella antibodies before conception</b>	
S Krugman, MD	905
<b>Factors contributing to mortality in paracetamol-induced hepatic failure</b>	
R J Flanagan, BSC, and others	905
<b>Chlorosis, anaemia, and anorexia nervosa</b>	
L J Bruce-Chwatt, FRCP; W M Jordan, BM	906
<b>Radiosensitisers</b>	
H B Hewitt, MD; G E Adams, PhD	906
<b>The dark future for child health</b>	
G H Cooper, MB	907
<b>Design for a school computer module</b>	
J D Leach	907
<b>Using computerised lists of doctors</b>	
M J C Brown, MB	907
<b>Bed requirements for undergraduate teaching</b>	
J O Forfar, FRCP, and R G Mitchell, FRCPE	907
<b>City centres and general practice</b>	
R Lefever, MRCGP	907
<b>Giving all registrars a fair chance of becoming consultants</b>	
J J Shipman, FRCS	907
<b>Do sick doctors need more than the GMC?</b>	
Two founder members; T G Tennent, FRCPsych	908
<b>Reorganisation and structure of community medicine</b>	
S S Bakhshi, MFCM	908
<b>Organisation and management of scientific services in Scotland</b>	
R A Bird; A D Farr, PhD	908
<b>Medical advisory machinery</b>	
R C Millward; A R M Freeman, MRCPsych	909
<b>Index-linked pensions</b>	
D L Williams, FRCPGP; E O Evans, FRCPGP	910
<b>The medical profession and drug firm hospitality</b>	
J M Christy; J S Martin, FRCS; K Norcross, FRCS	910
<b>Corrections: A cautionary tale (Moshy); An aid to reducing unnecessary investigations (Hayes and MacWalter)</b>	910

We may return unduly long letters to the author for shortening so that we can offer readers as wide a selection as possible. We receive so many letters each week that we have to omit some of them. Letters must be signed personally by all their authors. We cannot acknowledge their receipt unless a stamped addressed envelope or an international reply coupon is enclosed.

Correspondents should present their references in the Vancouver style (see examples in these columns). In particular, the names and initials of all authors must be given unless there are more than six, when only the first three should be given, followed by *et al*; and the first and last page numbers of articles and chapters should be included. Titles of papers are not, however, included in the correspondence section.

### Beta-blockers in asthma

SIR.—The reminder from Dr June M Raine and others (14 February, p 548) that beta-blocking drugs can precipitate serious asthma and death in vulnerable patients was useful. Although these complications are more likely to occur with non-selective drugs such as nadolol they can also occur with cardioselective drugs and no beta-blocking drug should be considered free of risk.

I wonder whether, in retrospect, a more aggressive approach with salbutamol should have been tried initially in the patient they describe. Beta-agonists and beta-blockers are competing for bronchial and other beta-receptors so it should be possible to overcome beta-blockade with large doses of beta-agonists. In normal subjects a 60-fold increase in the dose of salbutamol was necessary to achieve bronchodilatation after 80 mg propranolol.<sup>1</sup> A similar increase would be expected in asthmatic patients; so that doses of the order of 10 mg salbutamol every 10 minutes by inhalation and intravenously are probably needed, and should be given until bronchodilatation occurs—heart rate, electrocardiogram, and blood pressure permitting. Although the dose sounds alarmingly high, side effects should not occur since the other actions of salbutamol would also be blocked by the beta-blocking drug; and this has been our experience with normal subjects. Isoprenaline would reverse the cardiac effects of beta-blockade more effectively, but if given alone may reverse these and cause beta<sub>1</sub>-stimulation before reversing bronchial beta-blockade. The relative amounts of salbutamol and isoprena-

line to be given will depend on the clinician's assessment of whether bronchial or cardiac beta-blockade is contributing more to the patient's condition. In addition to salbutamol and steroids, inhaled ipratropium or atropine is worth trying and probably aminophylline, though its bronchodilator effect may be attenuated by propranolol<sup>2</sup> and its cardiovascular effects in the presence of propranolol may not be beneficial.

An alternative approach would be to try the effect of prostaglandin E<sub>2</sub> (PGE<sub>2</sub>), which stimulates adenylate cyclase through a receptor separate from the beta-receptor and so should bypass the effects of beta-blockade, which it does in normal subjects.<sup>3</sup> This theoretically attractive approach has not, to my knowledge, been used in ill patients so would need to be tried cautiously, particularly as PGE<sub>2</sub> is rather irritant to inhale.

ANNE E TATTERSFIELD

University of Southampton  
Faculty of Medicine,  
Southampton General Hospital,  
Southampton SO9 4XY

<sup>1</sup> Gribbin HR, Baldwin CJ, Tattersfield AE. *Br J Clin Pharm* 1979;7:551-6.

<sup>2</sup> Mackay AD, Baldwin CJ, Tattersfield AE. *Thorax* 1980;35:239.

<sup>3</sup> Lewis RA, Seth RV, Tattersfield AE. *Clin Sci* 1981; 60:17P.

SIR.—Although the dangers of adrenoceptor beta-blocking drugs in asthma were pointed out nearly 20 years ago<sup>1</sup> these risks are still not widely enough appreciated as Dr June M Raine and her colleagues point out in their

report (14 February, p 548) of a near-fatal attack of bronchospasm in an asthmatic given nadolol for hypertension.

Dr Raine suggests that if a beta-blocking drug is considered essential in an asthmatic patient treatment should preferably be started under medical observation with peak flow monitoring. I think that this is wise, but it may not always be enough. In an asthmatic subject the acute bronchoconstrictor response to a beta-blocking drug can vary substantially from time to time.<sup>2</sup> Hence even a small or absent response to one or more test doses does not guarantee that a severe bronchoconstrictor response to the same dose will not occur at a later date. Such a severe reaction may be especially likely if the patient is simultaneously exposed to other bronchoconstrictor influences, such as cold or exercise.<sup>3</sup>

In most instances the bronchoconstriction induced by beta-blockers in asthma promptly reverses, wholly or partly, with aerosol administration of a beta-stimulant bronchodilator drug. Hence before giving a beta-blocker to an asthmatic it is important to ensure that the patient has an adequate aerosol technique and that he actually carries an inhaler. The dose of bronchodilator (beta-agonist) can be double or treble the usual dose to overcome the antagonist.

Occasionally, as in the present case, the bronchoconstriction does not respond even to large doses of beta<sub>2</sub>-stimulant drugs. A possible explanation for this might be that the bronchoconstriction is not a consequence of beta-blockade at all but results from some