

# BRITISH MEDICAL JOURNAL

11/1/STA  
SATURDAY 28 MARCH 1987

SEARCHED  
SERIALIZED  
CURRENT CONTENT RECORDS

APR 29 1987

USO  
NAT'L ACAD. LIBRARY  
RECEIVED

## LEADING ARTICLES

Consultant accountability	JAMES OWEN DRIFE	789
Abdominal aortic aneurysms	N F GOWLAND HOPKINS	790
Nursing manpower	NICK BOSANQUET	791
Long term urethral catheterisation in the elderly	R B KINDER	792
Testing the sense of smell	VICTORIA MOORE-GILLON	793
Sterilisation and the mentally handicapped	DEBABRATA CHAKRABORTI	794

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

Effect of protein restriction in insulin dependent diabetics at risk of nephropathy	DAVID COHEN, ROSEMARY DODDS, GIANCARLO VIBERTI	795
Bone mineral density in Addison's disease: evidence for an effect of adrenal androgens on bone mass	J P DEVOGELAER, J CRABBÉ, C NAGANT DE DEUXCHAISNES	798
Does prophylactic thyroxine treatment after operation for non-toxic goitre influence thyroid size?	LASZLO HEGEDÜS, JENS MØLHOLM HANSEN, DAGMAR VEIERGANG, STEEN KARSTRUP	801
Infertile or childless by choice? A multipractice survey of women aged 35 and 50	GINA JOHNSON, DELYTH ROBERTS, RICHARD BROWN, ELIZABETH COX, ZYG EVERSHERD, PRAVIN GOUTAM, PAUL HASSAN, RUTH ROBINSON, ASHOK SAHDEV, KATHY SWAN, CATHY SYKES	804
Pressor effects of thyrotrophin releasing hormone during thyroid function testing	ERIC ROSENTHAL, YOUSEF C NAJM, MICHAEL N MAISEY, PAUL V L CURRY	806
Chlorpromazine induced fluid retention masquerading as idiopathic oedema	LIMA WITZ, MENACHEM S SHAPIRO, LOUIS SHENKMAN	807
Hepatic adenomas induced by norethisterone in patients receiving renal dialysis	P A KALRA, J A GUTHRIE, J B DIBBLE, J H TURNER, A M BROWNJOHN	808
Simulated patients in general practice: a different look at the consultation	J J E RETHANS, C P A VAN BOVEN	809

## MEDICAL PRACTICE

Case note chaos: prevention is better than cure	STEPHEN M W HUTCHISON	813
Clinical Algorithms: Primary and secondary amenorrhoea	S FRANKS	815
Portraits from Memory: 10—Dr Thomas K Buchan (1885-1958)	SIR JAMES HOWIE	820
Testing for HIV without permission	RAANAN GILLON	821
Torsion of the testis: why is the prognosis so poor?	S BENNETT, M S NICHOLSON, T M LITTLE	824
Sterilisation of mentally handicapped girl	CLARE DYER	825
Big brothers in droves	GEORGE DUNEA	826
ABC of 1 to 7 (Revised): Sleep problems	H B VALMAN	828
Any Questions?		819, 823, 824, 827, 830
Materia Non Medica—Contribution from R M SYKES		830
Medicine and Books		831
Personal View	ANDREW SMITH	834

BMA ANNUAL REPORT OF COUNCIL 1986-7 Separately paginated in centre

CORRESPONDENCE—List of Contents 835

OBITUARY 846

## NEWS AND NOTES

Views	842
Medical News	843
BMA Notices	844
Scientifically Speaking	BERNARD DIXON 845

## SUPPLEMENT

The Week	848
Carry on smoking?	JOHN WARDEN 849
From the GMSC: "Do you take your doctor for granted?"	850
Correction: Parliamentary committee's views on primary care	852

## CORRESPONDENCE

<b>Childhood leukaemia and nuclear establishments</b> R H Mole, FRCP; R Russell Jones, MRCP .....	835	<b>Prejudice against women doctors</b> Frances Lefford, MB .....	838	<b>Points</b> Low serum selenium concentration and glutathione peroxidase activity in intrahepatic cholestasis of pregnancy (D B Shennan and C A R Boyd); Hyperpigmentation of skin in patients with AIDS (R Esposito); Is "Lesson of the Week" really a lesson? (P Sandercock); Continued medical education must not be an optional extra (P Presley); Comprehensive care of patients with head injuries (Ian McKinlay); Royal Free disease: risk of suicide (P D White) .....	840
<b>Guidelines on halothane</b> M Rosen, FFARCS .....	836	<b>Early emergency care</b> J D Urquhart, MSC .....	838	Psychostimulant properties of betel nuts (M P Deahl); Late abortion (D F Hawkins); A limited role for manipulation? (G N G Mason); Time for action on hepatitis B (P Board); Dally, O'Donnell, and the GMC (F E Weale); Christ Church conference on postgraduate education—25 years on (J R Young); Academic boycotts of South Africans (F P Retief) .....	841
<b>Respiration and connective tissue diseases</b> I W B Grant, FRCPED; M J Walport, MRCP .....	836	<b>Phototherapy and dithranol treatment of psoriasis</b> N J Lowe, FRCP .....	839		
<b>Reye's syndrome: assessment of intracranial monitoring</b> A M Emond, MRCP, and P J Fleming, MRCP .....	837	<b>AIDS counselling and informed consent</b> C A Morris, MD .....	839		
<b>Dangers in treating hyponatraemia</b> A N Ghanem, FRCS, and others; J D Swales, FRCP .....	837	<b>Tennis elbow: conservative, surgical, and manipulative treatment</b> Sir Reginald Murley, FRCS .....	839		
<b>Prejudice against doctors and students from ethnic minorities</b> S Bhate, MRCPsych; S Shaunak, MRCP .....	838	<b>Portraits from memory: Dr E C Smith</b> L J Bruce-Chwatt, FRCP .....	840		

*Because we receive many more letters than we have room to publish we may shorten those that we do publish to allow readers as wide a selection as possible. In particular, when we receive several letters on the same topic we reserve the right to abridge individual letters. Our usual policy is to reserve our correspondence columns for letters commenting on issues discussed recently (within six weeks) in the BMJ.*

*Letters critical of a paper may be sent to the authors of the paper so that their reply may appear in the same issue. We may also forward letters that we decide not to publish to the authors of the paper on which they comment.*

*Letters should not exceed 400 words and should be typed double spaced and signed by all authors, who should include their main degree.*

## Childhood leukaemia and nuclear establishments

SIR,—Evidence confined to the observation that childhood leukaemia is increased in the vicinity of nuclear installations (Dr Eve Roman and co-workers, 7 March, p 597)<sup>1</sup> is in itself no evidence at all that particular activities within the installations are the cause. If the increase is to be attributed to irradiation there must be some mechanism by which some children at least are more heavily irradiated when their home is nearer an installation than further away. After detailed consideration of the possibilities Dr Sarah Darby and Sir Richard Doll (7 March, p 603) concluded that "unless the doses to the stem cells from which childhood leukaemia originates have been grossly underestimated" the recent increase in childhood leukaemia at Dounreay could not be accounted for by radioactive discharges.

Dr Roman and colleagues reported that one of the three leukaemias occurring every year in the 60 000 children aged 0-14 years living within a 10 km radius of Aldermaston and Burghfield is in excess of the expected number. If so, intensive search for radioactive contamination of the tissues in every case of childhood leukaemia in the health authority areas surveyed would not be impracticable and would determine within a few years whether one child in three with leukaemia within that 10 km radius is abnormally contaminated by radioactivity. Dr Roman's coworkers included the responsible haematologists from the two hospitals where almost all of the patients with leukaemia would initially be seen, so special investigations could be arranged as required.

Plutonium isotopes in the tissues are virtually undetectable in life, but americium-241 is always

found with plutonium and can be used as an indirect means of assessing the amount of plutonium in the body. Americium-241 can be measured by external counting of the body, a non-invasive and painless procedure, which can be performed while a child is asleep and is probably a little more sensitive in the smaller body of a child than in the larger body of an adult. The detection limit, of about 7 Bq (0.2 nCi), would set an upper limit for speculations or, if the amount found exceeded this limit, might indicate broadly where the americium-241 was concentrated in the child's body. The highest concentration in Britain of the highly specialised equipment for measuring the output of radiation by the body is to be found in the area mapped by Dr Roman and colleagues, thus facilitating the suggested line of investigation.

R H MOLE

Boars Hill,  
Oxford OX1 5DF

1. Beral V. Cancer near nuclear installations. *Lancet* 1987;i:556.

SIR,—It would be all too easy to attack the leading article by Sir Douglas Black (7 March, p 591), particularly as the report he produced three years ago<sup>1</sup> now looks even more open to criticism than it did at the time.<sup>2,3</sup> Sir Douglas, however, has moved a long way towards acknowledging the health risks associated with living near nuclear installations.

The greatest excesses of childhood leukaemia have been documented around those installations

that discharge the greatest quantities of radioactivity into the environment. Thus within 12.5 km of Dounreay five cases of childhood leukaemia (0-24 years) were recorded between 1979 and 1984, compared with an expectation of 0.5, an observation which has a one in 50 000 probability of being due to chance.<sup>4</sup> This increase coincided with rising levels of plutonium and americium in the sea around Dounreay (R Russell Jones, evidence submitted to public inquiry, 1986).

Around Sellafield, the only other reprocessing facility in Britain, the increase is even more dramatic. In Seascale, the village next to Sellafield, four cases of childhood leukaemia (0-14 years) were recorded between 1968 and 1982 and a further two cases in 1983, an observation which has a one in a million probability of being due to chance.<sup>5</sup> Discharges of plutonium and americium from Sellafield peaked in the early '70s and are still higher than those of any other nuclear facility in the world.

Around other British installations the increases are more modest but still significant. The survey carried out by the Scottish Health Service showed 13 cases of non-Hodgkin's lymphoma and leukaemia within 6 km of the Rosyth naval dockyard between 1974 and 1978, compared with an expectation of less than five ( $p < 0.0015$ ) (Scottish Health Service Common Services Agency, evidence submitted to public inquiry). Pooling results from all five nuclear facilities in Scotland produces increased rates of childhood leukaemia for all three time periods from 1968 to 1984, an overall increase of 23%. Equally important is the finding that throughout Scotland as a whole leukaemia was