


4488
1377

~~CIRC. COPY ONLY~~

BRITISH MEDICAL JOURNAL



SATURDAY 15 MARCH 1969

LEADING ARTICLES

Absence from Work Attributed to Sickness page 657 **Viruses of Birds, Mice, and Men** page 658
Anaemia in Rheumatoid Arthritis page 659 **"Totting"** page 660 **Cyclophosphamide for Nephrotic Syndrome in Children** page 660 **Chronic Bacteriuria** page 661 **Neurogenic Intermittent Claudication** page 662

PAPERS AND ORIGINALS

Advantages of Aluminium Hydroxide Adsorbed Combined Diphtheria, Tetanus, and Pertussis Vaccines for the Immunization of Infants N. R. BUTLER, M. A. VOYCE, W. L. BURLAND, AND MARJORIE L. HILTON 663
Cyclophosphamide Therapy in the Nephrotic Syndrome in Childhood M. W. MONCRIEFF, R. H. R. WHITE, C. S. OGG, AND J. S. CAMERON 666
Adverse Effect of Topical Fluorinated Corticosteroids in Rosacea IAN SNEDDON 671
Availability of Food Iron A. JACOBS AND D. A. GREENMAN 673
Plasma Insulin during Remission in Juvenile Diabetes Mellitus K. JOHANSEN AND H. ØRSKOV 676
Severe Self-poisoning in Sunderland G. R. BURSTON 679
Gynaecography in Premature Ovarian Failure and Ovarian Dysgenesis LOUIS KREEL, JEAN GINSBURG, AND MICHAEL F. GREEN 682

PRELIMINARY COMMUNICATIONS

Obstruction of Bowel due to Lesion in the Myenteric Plexus N. H. DYER, A. M. DAWSON, B. F. SMITH, AND I. P. TODD 686

MEDICAL MEMORANDA

Cervical Lymphadenopathy Caused by *Aspergillus terreus* EL SHEIKH MAHGOUB, SIDDIG A. ISMAIL, AND A. M. EL HASSAN 689

MIDDLE ARTICLES

Home Adaptations for Haemodialysis F. K. WRIGHT, H. J. GOLDSMITH, AND A. B. SEMPLE 701
New Appliances
Dependent Drainage Balloon Catheter 705
Plastering Table for Infants 705
Disposable Operative Cholangiogram Cannula 706
Simple Inspection by Tube 707
Personal View A. BATTY SHAW 708

BOOK REVIEWS 698

NEWS AND NOTES

Epidemiology 723
Motoring 724
Parliament 725
Medical News 726

CURRENT PRACTICE

Behaviour Therapy for Anxiety States MICHAEL GELDER 691
Today's Drugs Insulin 694
Any Questions ? 696

CORRESPONDENCE 709

OBITUARY NOTICES 719

SUPPLEMENT

Scottish Council 99
General Medical Council : Disciplinary Committee 100

Correspondence

Letters to the Editor should not exceed 500 words.

Flying by Concorde F. J. Ensell, F.R.C.S.	709
Cholesterol Deposition on Aortic Prostheses J. R. P. Gibbons, F.R.C.S., and others	709
Traumatic Oedema of the Spinal Cord R. T. Nolan, F.F.A. R.C.S.I.	710
Bones in Broadwick Street S. P. Chave, PH.D.	710
Training of Surgeons N. E. Stidolph, F.R.C.S.	711
Swimming in Cold Water S. Sheffrin, M.B.; M. J. Wooldridge, M.B.	711
Swimming and Phenothiazines J. Johnson, M.D.	711
Anticoagulants in Acute Myocardial Infarction D. W. Evans, M.D., and J. G. Domenet, M.B.; J. de Swiet, M.D.	712
Treatment of Hypertension with Propranolol F. J. Zacharias, M.D.	712
Progestogen is not Progesterone G. I. M. Swyer, F.R.C.P.	712
Leptospirosis on Farms S. W. Michna, PH.D., and others	713

Nursing and Nurses Lindsay Miller	713
Maternity Services W. B. S. Crawford, F.R.C.S.ED.	713
New B.N.F. R. Law, M.B.	713
Road Traffic Accidents P. Whitehead, M.B.	714
Vaccination Certificates S. F. L. Lowe, M.B.	714
Mountain Accidents B. H. Humble, L.D.S., and H. MacInnes	714
Elderly in Hospital R. W. Parnell, D.M.	714
Status Epilepticus and Diazepam D. S. Bell, M.B., M.A.N.Z.C.P.	714
Undisputed Military Tuberculosis Jane M. Fullerton, F.C.PATH.	715
Awareness during Anaesthesia W. T. McNeil, F.F.A. R.C.S.	715
Torsion of Testis B. Hanstead, M.B.	715

Bilateral Tension Pneumothorax in Newborn Joan M. Wagner, M.R.C.P.; Patricia E. Mortimer, M.R.C.P., and D. Zuck, F.F.A. R.C.S.	715
"Bolus Injection" G. L. Bolt, M.R.C.P.	716
General-practitioner Hospital Beds C. J. Wells, M.B.; G. D. J. Ball, M.B.; H. M. S. Noble, M.B.; N. D. Whyatt, M.B.	716
Hospital Practitioner Grade D. Bryant, M.B., and others	717
University Clinical Teachers' Pay N. F. Morris, F.R.C.O.G., and others	717
Private Practice in British Medicine J. Ruffell, M.B.; J. N. Cockrill, M.B.	717
Area Board in Wales E. J. Parr, M.B.	718
Casualty Officers and Coroners V. Gopala, M.D.	718
Satisfaction Guaranteed N. Ahmad, F.R.C.S.	718
R.A.F. Medicine—First Fifty Years C. B. Heald, F.R.C.P.	718

Flying by Concorde

SIR,—My attention has been drawn to the letter by Dr. J. F. Loutit (4 January, p. 50) that indicates the possible hazards to crew and passengers of high altitude flight in the Concorde. Dr. Loutit is, of course, quite right in making the point that few of us will be involved in advice on deep space voyages, but that a great many doctors will almost certainly be involved in advice to passengers when the Concorde comes into airline service, as at presently in advice to subsonic passengers.

Dr. Loutit is perfectly correct in drawing attention to the fact that particle flux will increase within minutes (4 to 10 minutes) in the case of a solar flare.¹ One assumes that in stating that these flares may take about a day to reach our neighbourhood (21 December, p. 719) you were in fact thinking about the magnetic storm effects that do take many hours to build up in the vicinity of the earth following the arrival of particles from solar flares within minutes.

The British Aircraft Corporation Limited have always adopted a responsible attitude towards the possible effects of radiation to both crews and passengers in respect of Concorde, and have had the great privilege and benefit of the advice of the University of Bristol physics department, together with the Royal Aircraft Establishment and the Air Registration Board.

In consideration of the probable flight path of Concorde at about 60,000 ft. (18,000 m.), early papers from such people as Foelsche,² Fowler and Perkins,³ and subsequent reports like Upton *et al.*¹ and Davidson,⁴ have all indicated that the pessimistic estimate of radiation dose to both flight crew and passengers during normal sun activity is well below the dose recommended by the International Commission on Radiological Pro-

tection for the general population. The only possible hazard that can occur is that of the giant flare which may happen perhaps once or twice during an 11-year period (report of I.C.R.P. Task Group). Relatively much less hazardous events may occur pessimistically three to four times a year during the height of the solar cycle. To this end Concorde has always been designed to carry a radiation meter that will give adequate warning to the crew in the event of sudden increasing radiation, this meter being connected to the master warning system of the aircraft and calibrated to indicate "an alert" level of 10 m.rem/hour and an "action" level of 100 m.rem/hour, when it will be mandatory upon the crew to descend to a safe altitude, which can be taken as 45,000 ft. (15,000 m.).

Having established a "warning system" and a code of conduct on the part of the crew, there is still the problem of passenger reaction to either alarming rates of descent, change of attitude, or sudden deceleration of the vehicle. In the case of Concorde, having established that there is a need for descent to occur at a probable normal cruise height of 56,000 ft. (18,700 m.), then a normal "end of cruise descent" can occur from 56,000 ft. to 45,000 ft. in 4.2 min., which will include the time taken for crew appreciation of the problem. This rate of descent will incur no greater than a 0.2 g horizontal deceleration and a no greater attitude change than about 5° to the flight path. The cabin air conditioning will quite easily be able to cope with this change of altitude with virtually no difference being detectable to the passenger. This change in conditions should in no way inconvenience the travelling comfort of the public and will be less than the condition changes that now

occur in some subsonic aeroplanes on the approach to their terminal areas.

Finally, sir, may I add that of course Concorde can complete the journey sector quite safely at subsonic speeds and reduced altitude?—I am, etc.,

F. J. ENSELL,
Senior Medical Officer,
British Aircraft Corporation Ltd.,
Filton Division.

Bristol.

REFERENCES

- ¹ Radiobiological Aspects of the Supersonic Transport, a report of the I.C.R.P. Task Group on the Biological Effects of High-energy Radiations, *High Phys.*, 1966, 12, 209.
- ² Foelsche, T., International Air Transport Association, Fourteenth Technical Conference, Montreal, April 1961.
- ³ Fowler, P. H., and Perkins, D. H., *Cosmic Radiation and Solar Particles at Aircraft Altitudes*—background note, Air Registration Board, Supersonic Aeroplane Airworthiness Committee, SAAC/20, 1962.
- ⁴ Davidson, P. J. N., *Abstract of Final Report on M.O.A. Grant PD/34/017—Radiation Dose Rates at Supersonic Transport Altitudes*, Bristol.

Cholesterol Deposition on Aortic Prostheses

SIR,—In a paper by Pierie *et al.*,¹ it was stated that of 15,000 mitral valves supplied with silicone rubber balls no report of failure has been received, while out of a similar number of prosthetic aortic valves supplied some 29 damaged balls have been reported. These figures may well not represent the true incidence of failure. The total number of valves actually inserted is not known, while all replacements are not reported. One of us (J. R. P. G.) has in recent months seen four damaged aortic silicone balls which have so far not been reported in the literature.

In 26 of the cases reported there was an unsatisfactory haemodynamic state, which it was thought might have contributed to the