BRITISH MEDICAL JOURNAL

SATURDAY 19 JUNE 1976

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NO 6024 BRITISH MEDICAL JOURNAL 1976 VOLUME 1 1485-1549 ASTM CODEN: BMJOAE 1 (6024) 1485-1549 (1976)
BRITISH MEDICAL ASSOCIATION TAVISTOCK SQUARE LONDON WC1H 9JR. SECOND CLASS POSTAGE PAID AT NEW YORK NY WEEKLY 80p

CORRESPONDENCE

Correspondents are urged to write briefly so that readers may be offered as wide a selection of letters as possible. So many are being received that the omission of some is inevitable. Letters should be signed personally by all their authors.

Vaccine against swine influenza

SIR,—WHO influenza experts have recently recommended the inclusion of the A/New Jersey/8/76 (Hsw_1N_1) virus in inactivated vaccines for 1976-7.[1] That decision was prompted by the small outbreak caused by this strain in a military training camp in the USA which led President Ford to advocate a Government-sponsored mass immunisation campaign. This unprecedented measure was dictated by the current low level of specific immunity of most people younger than 50 against this virus, which is antigenically related to the swine influenza virus thought to have been responsible for the catastrophic 1918 pandemic (Spanish "flu").

We produced in our laboratories a small lot of β-propiolactone-inactivated whole-virion vaccine containing 400 IU of A/New Jersey/8/76 (X-53 (Hsw_1N_1), 400 IU of A/Victoria/3/75 (X-47 (H_3N_2), and 360 IU of B/Hong Kong/8/73 per dose in order to vaccinate company employees who are, or could become, engaged in influenza vaccine research, production, and control. The opportunity was taken to investigate the serological response to one dose of this new vaccine.

Blood samples were obtained about one month before and 19 days after vaccination from a total of 40 vaccinees (14 women (19-57 years) and 26 men (22-57 years)). Only four had not previously received influenza vaccine. Antibody titrations are still in progress but we should like to report our findings on the serum haemagglutination inhibition (HI) antibody response to the A/New Jersey/8/76 component in the vaccine. To our knowledge these are the first to become available. Each HI titre is the geometric mean of two independent titrations by a standard technique using cholera filtrate-treated serum and 3 haemagglutinating units of A/New Jersey antigen. The results are summarised in the table.

		Age range of vaccinees		
		19-44 years (n = 25)	≥45 years (n = 15)	All ages (n = 40)
Vaccinees with HI titre ≤40	Prevaccination	25 (100%)	7 (47%)	32 (80%)
	Postvaccination	5 (20%)	2 (13%)	7 (18%)
Geometric mean HI titre and range	Prevaccination	14 (≤13*-21)	45 (≤13-229)	21 (≤13-229)
	Postvaccination	110 (18-1293)	160 (≤13-1087)	127 (≤13-1293)
Geometric mean rise in titre		×7·9	×3·6	×6·0
Arithmetic mean rise in titre		×14·1	×5·5	×10·9
Vaccinees showing ≥4-fold rise in titre		19 (76%)	7 (47%)	26 (65%)

*An undetectable antibody HI titre (≤13) was assigned a value of 13 for calculations.

It is clear that 400 IU of A/New Jersey/8/76 vaccine gave a good homologous serum HI antibody response after a single dose in vaccinees above 45 years, 11 of whom had pre-existing antibodies to the strain owing to the fact that swine-like viruses circulated among humans up to about the early 1930s. The response was equally good, if not better, in younger vaccinees who are unlikely to have been exposed to swine-influenza viruses. Three of these had low prevaccination titres and we suspect that these reflect cross-reacting antibodies. Of 26 vaccinees with undetectable HI titre (≤13) before vaccination, 20 reached a titre of ≥40 after vaccination. Only one person showed no rise in serum HI titre against A/New Jersey after vaccination. Thus we conclude that this dose of vaccine will probably confer adequate immunity against the A/New Jersey virus, at least to all adult age groups.

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[1] World Health Organisation, *Weekly Epidemiological Record*, 1976, **51**, No 6.

Multiple sclerosis among immigrants

SIR,—Once again I must disagree with my good friend, Dr Geoffrey Dean. In their admirable study on multiple sclerosis (MS) among immigrants in greater London (10 April, p 861) Dr Dean and his colleagues conclude that "those who migrate from low-risk countries to London, a high-risk area, keep their low risk of developing the disease;