At the time of writing (December 16) services have been largely restored, and among the population stabilizing forces are in full evidence. As their houses are repaired the occupants are returning. There has been no outbreak of infectious disease up to date.

INOCULATION WITH T.A.B.C. VACCINE IN SOUTHAMPTON ANALYSIS OF REACTIONS

BY

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In September, 1940, we initiated in Southampton a campaign to protect the civilian population against the typhoid group of fevers. The response of the public has been encouraging, particularly among the employees of the larger commercial firms, in some of which we have achieved as high an acceptance rate as 80%. It is interesting to note that, although on occasions the local and constitutional reactions caused discomfort, the number of persons who did not return for a second injection was under 1%.

Some local authorities have refrained from carrying out mass inoculations owing to the possible loss of working time among the manual workers in essential war production. An editorial in the *Medical Officer* discredited such a scheme, on the assumption that every person receiving inoculation would be incapacitated for forty-eight hours, and considered that the resultant loss of working days would far outweigh the time lost through the disease. This conclusion was based on the incidence of the disease in peacetime. For this reason I have noted with care the reactions and loss of working time among those who have received the inoculations. Unfortunately it has not been possible to ascertain to the same degree the reactions following the second injection, but from a large number of people who have been interrogated we find that these show little difference.

The Lister Institute T.A.B.C. vaccine was used in the following doses, with fourteen days' interval between the first and second injections: men, 0.5 c.cm. and 1 c.cm.; women, 0.3 c.cm. and 0.6 c.cm. In analysing the reactions males and females have been divided into manual and sedentary workers, and the reactions classified as follows:

1. Slight local reaction—stiffness of the arm with local redness for a period lasting up to forty-eight hours.
2. Severe local reaction—pain and stiffness exceeding forty-eight hours, with redness and swelling extending more than two inches from the site of injection.
3. General reaction. This took several forms, the most common being a feeling of malaise, nausea, giddiness, shivers, and 'flu'; it included in a few cases abdominal pain, with diarrhoea, vomiting, and occasional erythematous or urticarial rashes, the last-named being more marked in allergic subjects.
4. Combined reactions: one of the local reactions with a general reaction.
5. No reaction.

Many of the larger firms desired to have their employees split into groups, owing to the possible dislocation of work by incapacitation, but it is shown that among the 10,032 persons investigated the total loss amounted

to only thirty days, and no working time was lost by a total of 1,872 male manual workers. Children over 3

Analysis of Reactions following the First Injection

Reactions	Females		Males		Total
	Sedentary Workers	Manual Workers	Sedentary Workers	Manual Workers	
Slight local	1,707 (61.45%)	1,766 (67.8%)	1,592 (57.2%)	1,188 (63.4%)	6,253
Severe local	50 (1.85%)	70 (2.6%)	38 (1.3%)	50 (2.7%)	208
Combined reaction ..	766 (27.6%)	594 (23%)	992 (35.7%)	508 (27.2%)	2,860
No reaction	253 (9.1%)	172 (6.6%)	160 (5.8%)	126 (6.7%)	711
Number inoculated	2,776	2,602	2,782	1,872	10,032
No. of working days lost	8	7	15	—	30

years of age receiving the appropriate dose did not show any severe reactions, and in many cases protection against diphtheria was given at the same time without any bad result. It was also noted that those who had severe general reactions usually had mild local reactions.

Before the heavy raids on Southampton between 3,000 and 4,000 persons attended for inoculation each week, but the interruption of the clinic services occasioned by these raids upset the routine, and we are now making use of the mobile first-aid units. These are stationed in different parts of the town every afternoon, and the number of persons attending shows a daily increase. It is of great importance that if large numbers of persons are to be protected in a town a medical officer should be sent to the places of employment, as workers find it difficult to attend public clinics before the early black-out.

Clinical Memoranda

Congenital Obliteration of Bile Ducts with Total Transposition of Viscera

I have failed to trace any references to congenital atresia of the bile ducts occurring in association with complete transposition of the viscera, hence my desire to record the following case. I have found reports of cases in which congenital obliteration of the bile ducts has been described in association with the transposition of some of the viscera, but in none of them does the transposition seem to have been total.

CASE REPORT

A full-term female child—weight $7\frac{1}{4}$ lb. at birth—was admitted when 6 months old to the Devon and Exeter Hospital bearing the label "icterus neonatorum." The history was that she had been "yellow" since birth. This "yellowness" had steadily increased in intensity, and about six weeks previous to admission the abdomen had gradually become swollen, followed by swelling of the legs and feet; otherwise, according to the parents, the child had been healthy and normal in every way. She was the second of the family, the elder child being perfectly healthy. The father and mother were both healthy and normal. No instance could be elicited of a similar condition in the family history.

On admission the temperature was 99.2° , the pulse 120, and the respirations 48. The infant was well nourished, somewhat anaemic, had marked distension of abdomen, with a moderately intense icterus which involved the whole body, including the conjunctivae. I was unable in my interrogation of the parents to find out whether the jaundice had first appeared in the skin or in the conjunctivae. Both legs were