### Letters

## **Epidemic Jaundice:** Harvard's 5th General Hospital at Musgrave Park in World War II.

#### Editor

Ireland could not be described as an area of high risk for yellow fever, and the curious might wonder why US troops stationed in Ulster had received the yellow fever vaccine responsible for the serum hepatitis epidemic described by Dr Hedley-Whyte.<sup>1</sup>

There had been an epidemic of fever in Dublin in the winter of 1826/27 in the course of which nearly twenty patients died after developing jaundice. Professor Robert J Graves described the outbreak in his book Clinical Lectures on the Practice of Medicine in a chapter entitled "Yellow Fever of the British Islands." <sup>2</sup> He felt that several of his cases presented "all the characters of yellow fever" and he noted that "This is a very remarkable fact, for this form of fever has been very rarely witnessed in this country". He was aware that true yellow fever usually occurred in warmer climates and had a higher mortality than he had observed in Dublin but he argued that because "even in the warmest latitudes epidemics of yellow fever are always mixed with fevers of a bilious character, but of a milder type", so, if the infection should spread to temperate latitudes, "the reverse would happen, and this influence would then produce an epidemic of bilious or gastric character, with comparatively few cases approaching in violence to yellow fever." When Nogueira gave a talk in 1955 on the history of yellow fever before 1905,3 the above report lead him to place Ireland on a list of countries which had experienced epidemic viral yellow fever, but it is extremely unlikely that the Dublin epidemic in the middle of winter was due to that.<sup>4</sup> Lieutenant-General Sir William MacArthur, in a discussion of the famine fevers in Ireland, suggested that the sixth century yellow pestilence or Buidhe Chonaill was due to "a severe form of relapsing fever [caused by louse-borne Borrelia recurrentis], with jaundice common enough to dominate the general picture of the disease",5 and perhaps Graves' epidemic was due to the same.

The explanation for the vaccination of the US troops is more prosaic and does not involve reference to the epidemic in Dublin. Up until January 1942 only those stationed in or passing through tropical areas required vaccination but in that month it was decided that all US military personnel were to be vaccinated as soon as practicable. An epidemic of jaundice followed, peaking in June or July 1942 and affecting in all some 50,000 troops. Similar epidemics were seen in civilian practice. Human serum was used in the preparation of the vaccine and evidently, despite treatment by heat and Seitz filtration, the final product was sometimes contaminated by the hepatitis B virus. A serum-free vaccine was introduced after April 1942 and proved safe.

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# Response to JS Logan and JI Logan's Letter to the Editor re: "Epidemic Jaundice: Harvard's 5th General Hospital at Musgrave Park in World War II"

#### Editor,

The Logans' comments are most timely. The decision in January 1942 that United States military personnel should be vaccinated as soon as practical against yellow fever was predicated by the active battlefields of World War II at that time. The US Army's 34th Infantry Division, National Guard from the Dakotas, Iowa and Minnesota, landed in Algiers on 8th November 1942. In Tunisia they were in 2nd Corps under the command of Patton and Tyrone-born Alexander. In Italy they landed at both Salerno and Anzio and attacked Monte Cassino. They captured Bologna on 21st April 1945.

David E Bloom, Clarence James Gamble Professor of Economics and Demography, Harvard University, and colleagues have recently written a survey of the benefits and costs of vaccination, including against yellow fever. The benefits and challenges world-wide are enormous. This paper sheds interesting light on mischief-makers from George Bernard Shaw to Prime Minister Blair.<sup>3</sup>

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