Medical History

Treatment and Supervision, D-Day to Victory: Europe

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INTRODUCTION

From August 1, 1944 until VE Day in May 1945, 1,085,285 predominantly American or Canadian Allied fighting men, were conveyed in 129 convoys in which troop-ships sailed past Londonderry to the Clyde. The medical and surgical care of this east-bound trans-Atlantic million and returning 554,089 were the remit of rescue ships. Additional men and women were carried in super-liners including *Queens Mary* and *Elizabeth*, which sailed speedily and separately.

Neuropathologist John Henry Biggart, on 19th September 1944, chaired his first Faculty Meeting as Dean of the Medical School of Queen's University^{1,2,3} (Fig. 1). Within six weeks the Vice Chancellor. Sir David Lindsay Keir^{4,5,6,7} had secured as Consultant Advisors, Professor of Medicine, W.W. Thomson⁸, and Professor of Surgery, P.T. Crymble⁹. This quadrumvirate were ultimately responsible for treatment of those casualties in the Allied Armed Forces that were landed in, or injured in Ulster. During the period September 3, 1939 through March 31, 1946, 831 Allied Naval, 4,989 Army and 1,704 Airforce casualties were treated in hospitals in Northern Ireland^{10,11}. More than 15,000 additional patients, including those injured in air raids, evacuees and transferees were also treated during that time period^{10,11}.

ALLIED RESCUE RESPONSE

On the suggestion of Allied Merchant Seamen, Convoy Rescue Ships had first appeared in 1941. Five ships of the small passenger cargo type were converted¹². Prior to World War II, these vessels were designed chiefly for coastal voyages. Crossing to North America from Greenock, Liverpool, Belfast and Londonderry and return was their most usual wartime task; many other voyages were made to North Russia and Gibraltar¹². By June 1944, 29 convoy Rescue Ships flew the Blue Ensign as non-commissioned Fleet Auxiliaries¹³. During 1944 and 1945 a single convoy rescue ship nearly always sailed at the back of a convoy of 80 or more merchant ships with a dozen or so RCN, USN, or RN naval escort vessels¹³.

Typically rescue ships carried a crew of about 70, generally double pre-war manning. The convoy rescue ship needed one or two efficient, reliable, quickly launchable motor life boats. Men, and occasionally women, swimming needed rescuing first, then those on rafts or floats. Generally those

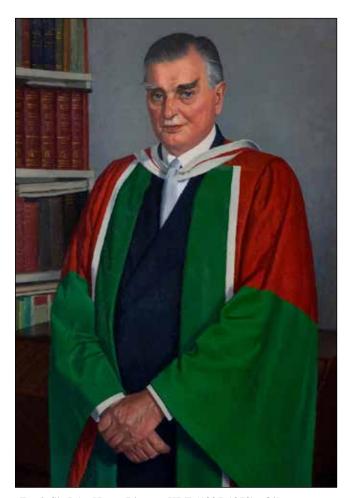


Fig 1. Sir John Henry Biggart, KBE (1905-1979). Oil on canvas,
106 cm x 74.6 cm, by John Turner (1916-2006). From the
collection of the Naughton Gallery, Queen's University Belfast,
No. QUB 19, gift 1990, and reproduced with their permission.
Distinguished Neuropathologist and Queen's Medical School
Dean for over a quarter century from 1944.

in their own ships' life-boats could be rescued by the rescue ship or would be by other ships. By 1944 officers and certain ratings of the rescue ships were armed: U-boat crews could be threatening.

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Rescue ships all had a well-equipped operating theatre¹⁴. All surgical instruments had duplicates; all were kept sterilized. By 1944, the Nova Scotia Branch of the Canadian Red Cross Society had provided suitable operating tables that were both expensive and sturdy. Both patient and surgeon had to be strapped to the table. The best method for the surgeon and sometimes for his assistant were waist-belts with hooks to bars running alongside the operating room table¹⁴.

Anaesthetic machines were Nuffield or Heidbrink with use of intra-venous thiopentone, preferably for induction only^{14,15}. Medical Officers were allocated to Rescue Ships of the Royal Navy and included a Royal Canadian surgeon^{15,16}. These surgeons were chosen from those who had eighteen months to 5 years training in Casualty or Surgical work. They were expected to be good sailors^{12,13,14,15,17}.

THE HARVARD FATIGUE LABORATORY

The Harvard Fatigue Laboratory was already studying the effects of levels of carbon monoxide produced by snorkeling on fit humans under the leadership of F.J.W. Roughton, Plummer Professor of Colloid Science, Cambridge University, who had been posted indefinitely to Cambridge, Massachusetts^{18,19}. Work in the Fatigue Laboratory on chlorine gas, hydrogen peroxide and mercuric vapours was ongoing.

DUTIES TO CONVOY

With a typical trans-Atlantic convoy of 100 ships mostly carrying at least 100 persons, the physician-surgeon on board the Rescue Ship was frequently called upon for advice. Radio-silence had to be maintained and night-light signaling was discouraged¹⁷. Pennant 99 from the Commodore of the Convoy was for "urgent medical assistance"¹². A flag set of responses known as the "Abbreviated Medical Code" was developed by the holder of the Regius Chair at Glasgow, now Rear-Admiral J.W. McNee^{12,13,20} (Fig 2). In 1944, seventy identical sets of medical flag codes were used. If the Rescue Ship had been sunk, as were six of the twenty-nine in service lost to enemy action¹² an escort ship substituted.

Surgeon Lieutenant John Dickinson Palmer of the Royal Canadian Navy was in charge of looking after Canadians in the Londonderry area. He was based in Ballinderry from August 1943 to September 1945¹⁷ and was also in charge of triaging from Canadian ships to other Allied Hospitals in Northern Ireland. In Belfast, this task was undertaken by Dean John Henry Biggart and the quadrumvirate^{1,2,3,4,5,6,7,8,9}.

By May 1945 the convoy Rescue Service had lost 209 men as well as 22 rescued seamen. By VE Day, 797 convoys had been supported by a Rescue Service Ship; 4,194 men were saved, of whom 2,296 were British seamen²¹.

In August and September 1944, Rescue Ship *Goodwin* was kept at Moville, Donegal, to cover passing troop convoys. The *Goodwin* was coal-fired with Scotch-type Marine boilers, potentially continually functional with the ability to steam underway at 5 minutes notice, as she had to on September

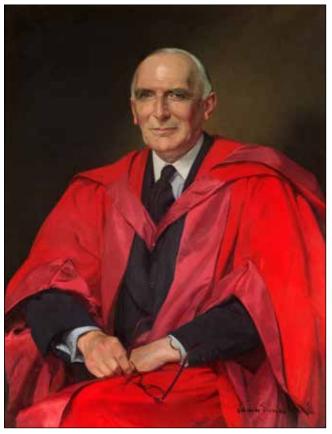


Fig 2. Professor Sir John William McNee (1887-1984), DSO (1918), Surgeon Rear Admiral to the Royal Navy, for Scotland and the Western Approaches. Oil-on-canvas by Sir James Gunn, R.A. (1893-1964), 1954, 89.7 x 69.5 cm, no. GLAHA_44276. From the collections of the Hunterian Art Gallery, University of Glasgow and reproduced with their permission. McNee was educated at the Royal Grammar School, Newcastle-upon-Tyne, and Glasgow University. After appointments at Freiburg, during World War I, he served as an adviser to the British First Army in France. In 1924 he was appointed Associate Professor of Medicine at Johns Hopkins. After spells at University College Hospital, in 1935 he accepted the call to the Regius Chair at Glasgow. In 1949, Sir John was Visiting Professor at Harvard University²⁰.

8, 1944. *Goodwin* escorted 32 convoys and rescued 133 survivors in 1943-1945²².

The sinking of Rescue Ship *Pinto* on September 8th, 1944, was from a convoy H-X-305 (H is for Halifax, Nova Scotia; X is for UK) of 107 ships in 15 columns just north of Donegal. Fifteen miles off the coast of Malin Head U-boat, U-482, type VIIC with snorkel, had been crawling and lying on the bottom near Inishtrahull. Several hours earlier, in sight of land, U-482 had sunk the large tanker *Jacksonville*, newly completed and launched in Oregon; there were two survivors from a U.S. crew of 78²². The two survivors were taken from the Atlantic by *USS Poole* and landed at Londonderry: they were transferred to Belfast for treatment of "burns and other injuries" U-boat 482 then sank Corvette *Hurst Castle* with an acoustic torpedo with the loss of 16 of *Hurst Castle*'s 105 crew. Survivors were landed at Moville. U-boat 482





Fig 3. Admiral Sir Max Horton (1883-1951), by Arthur Douglas Wales-Smith (1888-1966), Oil-on-canvas, 76.2 cm x 61.0 cm, painted about 1945, No. BHC2783. From the collections of the National Maritime Museum, Greenwich.

then sank *Fjordheim* a freighter having come from Belfast Lough. One acoustic torpedo sank her quickly but 35 of 38 crew survived and were taken to Halifax, Nova Scotia by convoy Rescue Ship *Fastnet*²¹. U-boat 482's next victim was the converted whaling factory ship *Empire Heritage*. Built

by Armstrong Whitworth at Newcastle-upon-Tyne, she was launched 29 April 1930 for Irvin and Johnson for whaling²¹. U-boat 482's acoustic torpedo opened a tank of fuel oil which exploded. *Empire Heritage* sank almost immediately. Rescue ship *Pinto* and armed trawler *Northern Wave* came to the rescue site within minutes. U-boat 482 soon fired a German naval acoustic torpedo (GNAT) which homed on *Pinto's* propellers and sank her within two minutes. The *Pinto's* Surgeon Lieutenant Philip N. Holmes was searching for the sickbay attendant. Meanwhile the *Pinto's* Master, Captain Lawrence Boggs and surviving crew released number 5 lifeboat, the jolly boat, and then number 6 lifeboat and one of the rafts. Under water, Surgeon Holmes became entangled but fought free to surface in the oil-covered four foot waves. Holmes had serious lacerations of hand and leg²¹.

HMCS Hespeler arrived 70 minutes after the sinking of Empire Heritage, 39 minutes after the demise of Pinto. With dawn, wind increased to Force Seven. At 10:30 HMT Northern Wave, another Allied escort ship, signaled Admiral Sir Max Horton that she was proceeding toward Londonderry. Wounded Surgeon Holmes was still operating and bandaging survivors including himself. Northern Wave escorted by RN Destroyer Ambuscade sailed to Malin Head and down to Lough Foyle. At Moville, Northern Wave's ASDIC dome was removed. At Lisahally the survivors were disembarked and taken to Londonderry. Sir Max Horton was signaled "5 cot, 4 walking, remaining 77 superficial"21,23(Fig 3). Empire Heritage had lost 56 of her crew and 54 of her passengers. From the sinking of Rescue Ship *Pinto*, 18 men were drowned and 41 survived, but Chief Engineer and Pinto's Donkeyman later died from injuries and are buried in Oban next to the bay from which Canadian and British Sunderlands flew for RAF Coastal Command²⁴. When visiting my* paternal

Table 1

North Atlantic Troopship Movements ('Operational Convoys'), August 1944-May 1945.

Month	Toward the UK		Toward North America	
	Number of convoys in which troop-ships sailed	Allied fighting men carried (all services)	Number of convoys in which troop-ships sailed	Allied fighting men carried (all services)
August 1944	15	169,321	12	42,700
September 1944	17	99,090	13	47,248
October 1944	15	173,543	18	63,947
November 1944	13	176,890	12	25,559
December 1944	18	150,037	18	51,465
January 1945	10	96,108	19	45,513
February 1945	13	79,597	20	46,253
March 1945	14	94,365	22	71,382
April 1945	8	28,882	19	60,173
May 1945	6	17,452	21	99,849
TOTALS	129	1,085,285	174	554,089

Adapted from Roskill²⁷. Not included are passenger liners which were rarely in convoy.



^{*} This, and any other first-person references refer to the first author.

Based Number of Strength in: **Total Escort Groups Frigates** Destroyers **Sloops** Corvettes Londonderry 20 (14 Royal 73 50 131 Canadian Navy) Belfast 6 36 36

Table 2

Distribution of Escort Vessels, Londonderry and Belfast, 1st January 1945. Adapted from Roskill²⁷.

grandparents, I used to watch, entranced, as these aircraft took off, having had first to ruffle waves.

U-BOAT LOSSES

Second and final Führer of the Third Reich, Karl Dönitz, was gratified by the Northern Ireland sojourn of U-boat 482; never again in World War II was another in-shore U-boat to be so successful²⁵. The attack of operational convoys, those carrying Allied combatants, was near-suicidal for the U-boat. Transatlantic operational convoys moved more than one million troops without acknowledged loss^{26,27}(Table 1, Table 2).

On U-482's next voyage to Northern Irish waters it was sunk with the loss of all hands. U-Boat losses in British coastal waters increased until VE Day. Dönitz reported that overall 630 U-boats were lost at sea: 603 through enemy action, 7 through accidents and 20 through unknown causes. An additional 81 U-boats were lost in port by air attack and mines and 42 from other causes. At the end of World War II 215 U-boats were sunk or blown up by their own crews, while others were scrapped or handed over to other navies. Dönitz later described the handover of 153 U-boats in British or Allied ports, including Lisahally²⁵, where on 14 May 1945, Admiral Sir Max Horton accompanied by Wrens and Colonel Dan Bryan, head of Irish Intelligence in mufti, watched the U-boat surrender^{26,28}.

According to the records of Supreme Headquarters Allied Expeditionary Forces from D-Day, June 6, 1944, to VE Day May 7, 1945, over a quarter of a million Allied casualties in Europe were air-evacuated, almost exclusively on DC3s to the United Kingdom²⁹. We estimate approximately 18,000 were landed in Northern Ireland to join approximately 1,800 Atlantic casualties landed at Londonderry and Belfast.

On VE Day, the Prime Minister of Northern Ireland, Sir Basil Brooke wrote:

"My dear Vice Chancellor,

May I take this opportunity to thank you and the members of your committee both personally and on behalf of the Government, for the valuable services which you have rendered during the war just now so successfully concluded so far as the European enemy is concerned.

The problems arising in a total war demand for their solution the co-operation of all members of the community and I want you to know that the work of your committee has been keenly appreciated.

Yours sincerely,

Basil Brooke¹⁰"

Keir^{4,5,6,7}, Biggart^{1,2,3} and Thomson⁸ were knighted, while Professor Crymble had been elected President of the Ulster Medical Society^{9,30}, and at age 90 still golfed. Crymble's 1914 description of the human peritoneum remains a most useful classic³¹. This foursome of Keir, Biggart, Thomson and Crymble took advice from Calvert³² and Sir Hugh Cairns at Oxford ^{33,34}. Transfer of patients also took place with Norman Dott at Edinburgh³⁵ and my father, former Commander at Musgrave Park^{36,37} then Brigadier General 1943-1945, Senior Surgical Consultant Northern Command 1943-1945³⁸. John Henry Biggart and Norman Dott were life-long intellectual collaborators.

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