History

‘Performing Miracles’: The Importance of Royal Naval Medical Officers in Operations ‘Overlord’ and ‘Neptune’ During World War II

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The D-Day landings of World War II on 6 June 1944 involving the landing of over 156,000 troops along the French coast marked the start of both Operation ‘Overlord’, the Allied invasion of north-west Europe, and Operation ‘Neptune’, the assault phase of the campaign. Confronted by German forces holding defensive positions, it was inevitable that there would be a large number of casualties and therefore a need for medical services, supplied primarily by the Royal Army Medical Corps (RAMC) and the Royal Naval Medical Service, to provide both emergency and on-going treatment of the many wounded. Much has been written about the Army’s medical role in World War II including ‘Medicine and Victory’ by M. Harrison, but the majority of work regarding Royal Naval medicine focuses on World War I, such as the books ‘The War on the Hospital Ships 1914-1918’ by Stephen McGreal and ‘Hospital Ships and Ambulance Trains’ by J.H. Plumridge. For information about the Royal Navy in the Second World War, the work of J.L.S. Coulter is the only detailed account of the topic and therefore is the most authoritative. The role of medical officers in the D-Day landings is covered extensively in his official history, ‘The History of the Second World War; The Royal Naval Medical Service’, published in 1953 and 1955. Coulter covers all aspects of medical care by the Royal Navy throughout the operations in great detail and his conclusion is that the role of Royal Naval medical officers was relatively minor compared to that of the Royal Army Medical Corps. However, more government and military papers have become available to the public since the publication of the books which provide further insight into the workings of the Royal Naval medical officers during the campaign. Using this new information, I was able to analyse the role of the medical officers of the Royal Navy throughout the operations, focusing on their work both at sea in small craft and ships, as well as ashore in both France and the United Kingdom. From the research carried out, I can conclude that the naval medics were at least as important as their Army colleagues, if not more so, particularly in the early phases of the assault. The conclusions of this study therefore contrast with the opinion of Coulter in the official history written over half a century ago.

Landing Ships (Tank): Critical Care

The preparations for Operation Overlord were extensive and some thought had been given as to the number of expected casualties. A government estimate for D-Day itself numbered 2600 casualties, with another 10,950 expected in the following week. With little Allied medical assistance available ashore in the early stages of the assault, it was decided that casualties should be evacuated to the United Kingdom for further treatment in the same craft the troops were landed in: 70 Landing Ships (Tank) or LSTs. These were chosen over the larger, better equipped hospital ships as the German forces had shown disregard for the Geneva Convention on previous occasions both during World War I and at Dunkirk in 1940 when two clearly marked hospital carriers, SS Worthing and SS Paris, were attacked in broad
daylight and seriously damaged by bomber aircraft.(8) This was despite a warning signal being sent to the enemy asking that the Geneva Convention be respected.(9) As a consequence of this, the Allies expected similar attacks and so were unwilling to take the same risks in an operation of a larger scale. Another reason for the use of small craft was that senior military figures had predicted that in the early phases of the operation it would be impossible for larger vessels to dock as there would be no quays available at which to moor and load casualties.(10)

The 70 small ships were divided between the main two medical services: 40 of the LSTs were to be medically manned by the Royal Navy.(11) The service was responsible for supplying three medical officers including; a surgeon, an anaesthetist and a doctor trained in resuscitation,(12) as well as sick berth attendants, to tend to the many wounded on their journey across the English Channel.(13) The other 30 were manned by members of the Royal Army Medical Corps.(14) Before the craft could be used, they had to be modified for the purpose of casualty evacuation and so were supplied with drugs and equipment, (15) such as resuscitation apparatus and blood products, including serum and full blood.(16) In addition, they were fitted with 144 adjustable stretcher racks (17) around the bulkheads,(18) allowing the craft to carry a total of up to 320 wounded personnel(19) and an emergency operating theatre was constructed at the rear of each craft to perform critical surgery during the return to the United Kingdom.(20) Following disembarkation of the troops at the Normandy beaches, code-named Gold, Juno and Sword, the medically-trained members of the crew were responsible for preparing the tank deck and setting up the medical equipment ready to receive the first wounded.(21) This was a task that had to be performed without hesitation as casualties resulting from enemy fire could be expected immediately upon landing. This was an important role as it was necessary to be organised for the receipt of the large number of wounded men so that medical treatment could be carried out effectively, highlighting just one of the ways in which Royal Naval medical officers were key during the operations.

The casualties received by staff on board the LSTs were certainly numerous, with over 800 casualties evacuated from Sword beach alone on June 7.(22) The first wounded seen by any craft were of the 6th Airborne Division who had been dropped on the mainland the previous night. They were treated by the medical staff of LST 423.(23) On this occasion, it was necessary for the medical teams to administer not only the basic ‘replacement of field dressings’, but also ‘some wonderful lifesaving operations’, (24) showing the differences in severity of injuries sustained in the earliest stages of the invasion. In the ensuing days, the number of casualties received by the officers on LSTs increased rapidly, as detailed by Surgeon Lieutenant Airth who noted the casualties received in his diary. On June 12, after a four-day gap in the diary due to the influx of patients, he recorded, ‘Got sixty casualties in the first rush and expected another four hundred.’(25) With only three medical officers on board the craft, the sheer volume of wounded soldiers is likely to have caused chaos as the officers were forced to decide which men to try to save. Yet, with clarity of mind and an ability to work effectively under pressure, the medical officers were able to work successfully.

Almost all cases seen by medical staff on LSTs in the first period of the assault were trauma cases. Surgeon Lieutenant Airth wrote about some of the cases he worked on in his diary:

*There were some ghastly injuries; we got the theatre going immediately, and removed many pieces of shrapnel… The most massive effort was for an amputation through the thigh for gas gangrene. But the poor fellow was too far gone; despite several pints of blood, he did not rally.*(26)

Despite this unfortunate case, the medical officers managed to successfully treat many others and save the lives of several soldiers, including one man who was suffering from a ‘serious haemorrhage from a compound fracture of the femur.’(27) The patient was apparently:

*moribund on arrival, but he was completely revived after four pints of whole
blood, followed by ligation of the bleeding vessels and application of plaster.(28) The medical officers drafted to the LSTs not only had the difficult job of treating casualties without sufficient equipment and supplies, but they also faced significant dangers as the operations began to unfold. With no medical staff ashore at the beginning of the assault, the officers from the LSTs had responsibility for medical care up to the water-line on the beaches (29) meaning that they too came under enemy fire as they tried to collect casualties from the water. This greatly affected the officers, as illustrated by the first entry in the diary of Surgeon Lieutenant Airth on June 6:

This has indeed been D-Day; Dawned-Day, Death-Day, Destruction-Day, Disappointment and Disillusion-Day. I have seen men die suddenly, horribly. I have twice been near death myself, so near that I desperately wish to forget, but probably will never do so.(30)

The medical officers on board LSTs remained crucial as long as the Army had not fully established adequate care ashore. It can be seen at the beginning that treatment had been chaotic and sometimes unsatisfactory. Airth suggested that ‘morphia had been plentiful, but treatment non-existent’,(31) and another medical officer claimed that they ‘found it necessary to apply a large number of plasters… plasters which had been hastily applied elsewhere’. (32) This shows the inadequacy of care inland and therefore the importance of treatment at sea by the Royal Naval medical officers in the early phases of the operations. Over time, the Royal Army Medical Corps’ facilities on the Continent improved as the Allied forces became more established and so the cases seen by staff on the LSTs became less traumatic and the procedures became more medical. These included treatments such as ‘taking off half a pint of fluid from one man’s chest’ and ‘doing a lumbar puncture’. (33) Whilst this work was still important, these procedures could be carried out by staff on hospital carriers and hospital ships which could come alongside once the floating, artificial Mulberry harbours had been towed across from England and set up. (34) Therefore, medical teams were steadily released from duty to return to England,(35) leaving the Army and hospital ships to deal with the wounded for the rest of the operation, suggesting that the services provided by the LSTs became ‘redundant’(36) over time.

**Hospital Ships: The Later Stages**

The other main type of vessel used was the hospital ship, although they did not have a significant role at the beginning of the campaign as there was nowhere for them to come alongside until the Mulberry harbours were fully functioning. These had a limited capacity for patients and casualties could not be embarked directly from the shore, so the wounded had to first be loaded onto Landing Craft Personnel (Small) which then carried the soldiers to the carrier when the tide was favourable. (37) Landing Craft Personnel Air-Cushioned (LCPAs) were also used as water ambulances, which could carry six or seven stretcher cases at a time to the carriers waiting off shore. (38) It was planned that hospital ships, including the converted passenger ferry, HS Duke of Lancaster, (39) were rostered to visit each of the beaches. However, when D-Day arrived, only two hospital ships were available. HS Isle of Jersey was the main hospital ship attached to the invading fleet (40) and she began to load casualties on 9 June. (41)

Hospital ships and carriers remained of importance throughout the duration of the campaign. The carrier Duke of Argyll was docked at Arromanches on August 12, over two months into Operation Overlord, for a trial embarkation. (42) Commencing at 1200 hours, the casualties were loaded continuously onto the ship for over three hours with over 70 stretcher cases being embarked in the first hour alone. (43) In total, 394 injured men were put onto the ship of which 209 were stretcher bound. (44) Although it is not clear what extent of treatment was received by the wounded soldiers on board, it is certain that the medical officers would have been busy attending to the patients and ensuring their comfort throughout the journey. This shows another aspect of care undertaken by the Royal Naval medical officers and underlines their importance in various locations during the assault.
It is clear that hospital carriers were crucial in the successful management of casualties as any wounded were treated onboard by hard-working and determined medical officers. However, on each of the occasions that hospital ships could be boarded by the injured, the vessels could not stay long as they were short of fuel and water.(45) For this reason, it is possible that the ships were not full to capacity each time. With so few of these ships used during the campaign and limited time available for the loading of casualties, this method of casualty treatment and evacuation can be seen to be less important than the LSTs as the majority of cases were treated elsewhere.

Other Ships: Additional Support
The majority of Royal Naval medical assistance took place on board the LSTs, hospital carriers and hospital ships but other ships in the area at the time also carried medical officers who were involved in providing care for the wounded. The main ship of the operations was HMS Largs, the flagship of Force 'S' which controlled the landings on Sword Beach. On this ship, active medical participation began at 0730 on Sword beach, when the crew required treatment for cold and exposure,(46) but it was not long before the medical team was inundated with wounded soldiers. As the flagship of the fleet, the majority of small craft transported casualties to the carrier, resulting in the entire staff of the ship being 'engaged within or away from the ship all day.'(47) This included Surgeon Lieutenant Manow, who worked exceptionally long hours, in one instance treating 47 wounded men in a 36-hour period.(48) Long periods of work throughout the fleet were certainly not uncommon, with an example of continuous operation carried out following the shelling of SS Demetriton on 21 June. Unable to transfer or land the 29 wounded soldiers, the Force Medical Officer and the medical officer of HMS Largs were forced to undertake all treatment procedures themselves, operating in a converted dining saloon from 1350 hours until 0020.(49) This was the longest unbroken spell of pure operation carried out by the officers during the campaign.

Other ships with medical officers onboard involved in the treatment of casualties included HMS Scylla, the flagship of the Eastern Task Force.(50) This ship was attached to the Normandy landings for the purpose of providing fire support at the beaches,(51) yet, according to Surgeon Lieutenant Commander Channell, who was the designated medical officer of the vessel, the ship also served as a reception centre for casualties.(52) Records show that survivors were commonly accommodated onboard following the loss of a ship, such as HMS Lawford which left 106 survivors, of which only seven were wounded.(53) Although there were relatively few casualties on this occasion, there are many injuries that could be sustained from being in the sea, such as shock, hypothermia and immersion foot, a syndrome occurring in survivors from shipwreck whose extremities had been exposed to the effects of the cold sea water for long periods of time.(54) As a result, the medical officer would always expect incidence of these conditions and would have been responsible for ensuring that any other survivors collected from the water were not suffering symptoms of these illnesses. For this reason, it is likely that the medical staff would have had to have dealt with several cases in a short period of time. It appears the staff handled such situations well, as Channell's work throughout the operations was deemed so worthy of praise that he was mentioned in dispatches for outstanding conduct during the conflict.(55)

The cruiser H.M.S. Belfast was also involved in several medical incidents from 6 June to 8 June, although it sustained no casualties itself during the bombardment of the Normandy coast.(56) The majority of casualties received by the medical officers were from landing craft which had been attacked by enemy fire during the landings, including seven wounded soldiers who were transferred to HMS Orion following treatment.(57) Other patients recorded include the crew of a craft transporting landmines from the beaches and 14 casualties from H.M.S. Swift which was damaged by mines and sunk.(58) All of the patients, once treated, were loaded onto the LSTs for the journey to the United Kingdom. Although responsible for their immediate care,
the medical officers on such ships played no part in the continuation of treatment for the soldiers attended to. It is for this reason that this role can be deemed relatively minor compared to that of the medical officers of the LSTs and hospital ships and carriers.

Not all casualties were sustained away from ship therefore, on some of the larger ships involved in Operation Neptune, the medical officers were responsible for treating any wounded resulting from enemy attack. One such ship was HMS Nith. Heavily attacked at night by German aircraft, the ship was eventually hit on June 23 by a pilotless plane. The explosion caused temporary failure of the lighting, such that first aid and resuscitation had to be carried out by torchlight. The medical officer managed to deal with the 26 wounded personnel by 0300; a remarkable feat with poor visibility, ensuring that the sailors were able to resume their duties as soon as possible.

France: Assisting the R.A.M.C
Royal Naval medical officers, although based primarily at sea, also carried out important work on land. Throughout the campaign, medical officers from the landing craft and ships were able to disembark and use their skills on the French mainland, aiding their Army colleagues. In the first few days of Operation Overlord, there appeared to be little need for the extra assistance, with reports from the medical officer with RNO Ouistreham of little to do ashore on June 8. However, the next day, Surgeon Lieutenant Commander Gillespie visited the temporary emergency camp and stated that medical supervision was definitely required and, by June 10, the casualty clearing posts were receiving such a large number of injured men that all walking wounded and those with minor injuries were forwarded to non-medical LSTs to allow the medics to concentrate their efforts on more serious cases. Although the naval doctors certainly assisted, the R.A.M.C. carried out the majority of the work without help.

Treating casualties was particularly difficult on the French mainland as heavy bombing by both Allied and German forces destroyed the majority of the infrastructure in coastal towns and cities, making it difficult for medical troops to find suitable locations to establish sick bays and casualty stations. The task of reconstruction was left to the Royal Navy in designated Port Parties, often including medical officers to work in the makeshift hospitals and clinics. Not well documented in Admiralty records, the information about these Port Parties is based mainly on the reports from the Senior Medical Officer of Port Party No. 1500, which was tasked to assist in the reconstruction of Arromanches. Each of the two medical officers within the party had a kit bag containing supplies and medical equipment in the event of injury of the other and, after landing, medical stores were carried ashore and a sick bay established as soon as possible. Although the majority of the town had been destroyed by heavy bombing, the medical officers were able to find a house in a reasonable condition to equip and use as another sick bay and, on the outskirts, an underground cellar was used as an emergency first-aid post, managed by a junior medical officer. The establishment of these sick bays was a key duty as they could then be used to deal with the numerous survivors who were continually landed at Arromanches following the sinking of ships by German underwater mining attacks. The treatment of the wounded survivors though was not the responsibility of the Royal Navy medical officers, as their Army counterparts arranged all ambulance transport and accommodation, as well as management of the injured until they were in a stable condition to be returned to the United Kingdom. Based on this, it can be suggested that the naval medics were central in the reconstruction of the port and setting up of adequate medical facilities, but cannot be credited with a significant impact on casualty treatment ashore in France.

United Kingdom: Resuscitation and Observation
Across the English Channel, the work carried out in the hospitals once the wounded had been evacuated from the Normandy coast was done mostly by the medical officers of the Royal Navy and was critical in saving as many
lives as possible. The arrangements for the reception of the injured were made by the Principal Medical Officer of the Royal Naval Barracks, who detailed several medical officers to control the disembarkation at the various ports.(71) Arrival of casualties into the United Kingdom focused mainly on the ports of Southampton, Portsmouth and Gosport(72) and, once a ship came alongside, a Boarding Medical Officer checked the number of cases onboard. If the cases were not yet organised according to the severity of their condition, they were classified by the Boarding Medical Officer as Port Cases, requiring immediate hospital attention, or Transit Cases.(73) Following disembarkation controlled by senior medical officers,(74) the wounded could then be transported to hospitals which were divided into the three categories of Port, where the majority of Royal Naval medical officers were based; Transit, and Base hospitals.(75) Port hospitals could hold 1200 patients, Transit hospitals had a total of 6550 beds and Base hospitals had the most beds for the least injured soldiers.(76)

Of the seven designated Port hospitals, including Portsmouth, Southampton and Alverstoke,(77) Royal Naval Hospital Haslar was the most important in the treatment of evacuated casualties as those that were too seriously injured to be able to stand further removal by train were taken there to be retained and looked after until fit for transfer.(78) Originally, it was planned that only naval cases be dealt with at R.N.H. Haslar as the Army were able to use other coastal hospitals under the Emergency Medical Services (E.M.S.) scheme. However, as the seriously wounded arrived it became clear that the casualties needed to be treated as soon as possible and could not be transported long distances.(79) Moribund cases were taken to R.N.H. Haslar and not moved from the hospital at all and certain cases which required careful observation, such as abdominal wounds, were held for up to five days following admission.(80) In anticipation of serious injuries, two casualty reception stations had been established which were capable of holding up to 40 cases at a time,(81) although only one could be fully manned at all times due to the limited number of medical officers available, with one officer designated on each station for the morning and evening shifts.(82) These stations proved to be exceptionally valuable in the early stages of the operation when the hospital was at its busiest,(83) as from 7 June to 11 June 118 patients required resuscitation.(84) A key part of resuscitation was blood transfusion which can be attributed to saving many lives, shown by the figures demonstrating the use of blood products at R.N.H. Haslar in the first fortnight of the campaign from June 7 to June 21: 576 bottles of blood and 436 bottles of reconstituted dried serum were used to treat 150 patients (approximately 25 per cent. of the casualties admitted to the hospital).(85) The number of deaths amongst men who were transfused during this only amounted to a total of ten.(66)

Away from the casualty receiving stations, casualties were treated on the remaining 19 wards (87) holding over 1000 beds.(88) Gas gangrene cases and burn victims were significantly fewer than expected, although there were a large number of ophthalmic cases as there was a specialist present within the staff so all cases were directed to Haslar.(89) Many traumatic injuries were seen including severe head trauma and chest and thoraco-abdominal wounds.(90) Those with injuries to the abdomen often required emergency surgery as abdominal incursions were discouraged in LSTs, although one or two successful operations were carried out when deemed absolutely necessary.(91) In order to be able to deal effectively with this number of surgical incidents, the surgical team from the Royal Naval Auxiliary Hospital Barrow Gurney in Bristol was present from 6 June until 16 June.(92) These medical officers performed exceptional operations with the result that out of the first 108 patients, of which most were moribund on arrival, only 19 men died.(93) It is of great credit to the medical teams responsible for treating these casualties that the fatality rate was so low, reflecting their skill and importance in saving many lives. Overall, R.N.H. Haslar accepted 1,347 patients by the end of August 1944,(94) all of whom were dealt with by medical officers who worked tirelessly to ensure that as many men as possible survived.
Relative Importance: A Minor Role?

It is evident that medicine played an important part in Operation Overlord and more specifically Operation Neptune. In the first stages of the campaign, from 6 June to 20 June, British casualties totalled 13,572, yet only 1,842 of these died. This demonstrates the volume of casualties who were successfully treated by military medical services. Such a high quality of care gave faith to the troops who were reassured that, were they to be injured in battle, there was a high chance of survival. Furthermore, this indicates the importance of medicine to the morale of the fighting forces and therefore to the war effort as a whole. However, the role of the Royal Naval medical officers within this effort must be kept in context. Although the Royal Navy were responsible for the majority of the care carried out on LSTs, it must not be forgotten that the Army also worked on board the craft, dealing with similar cases in the same environment. The Royal Army Medical Corps also worked alongside the naval medics in Port hospitals, as well as running most of the Transit hospitals, which treated more patients than the Port hospitals although the cases were less severe. Another area in which the Army excelled was the treatment of casualties on the French mainland as the assault advanced, establishing Casualty Clearing Stations and field hospitals. Therefore, it can be argued that the Army, having treated more patients, contributed more to the medical care of troops than the Royal Navy. This supports Coulter’s argument that ‘the part played by the Navy was a relatively minor role in a vast medical operational organisation’. However, the Royal Naval medical officers have been shown to be crucial in the early stages of the operations when casualty numbers were at their highest. As a result, I feel that Coulter underestimated the significance of Royal Naval medics in the campaign.

Conclusion

In conclusion, the medical officers of the Royal Navy were involved in key stages of casualty treatment at sea in LSTs, hospital carriers and hospital ships, as well as on larger ships attached to the invading fleet and in hospitals in the United Kingdom. Responsible for the safe evacuation of troops from the assault front and treatment during their journey and upon arrival on British shores, the officers were often under pressure, forced to work for long hours with few resources, yet they were still able to save hundreds of lives. From the research carried out, one could argue that the medical officers on board the LSTs had the most significant task compared to the other naval doctors. This is because they treated the majority of the evacuated casualties and many of the injuries sustained by the troops were severe and traumatic thus requiring urgent treatment. However, all of the officers involved were responsible for treating casualties and did so effectively. In the end, this was crucial to the morale of the soldiers and therefore the whole war effort, overall, the Royal Naval medical officers were of great importance in Operations ‘Overlord’ and ‘Neptune’ in 1944.

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