MILITARY HOSPITALS
IN THE MAKING

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During the last 300 years England has shown an increasing concern for the constant care of her sick and wounded. Many successful generals and other officers commanding have long appreciated that the outcome of a campaign can depend on the medical services. Broadly it can be said that the evolution of army hospitals has followed closely their civil and naval counterparts, and that following each war improvements have been accomplished in the organization of military hospitals and medical services.

It is probable that the first military hospital to be established in this country was that in Porchester Castle in 1563 which was required for the care of the casualties from the gallant garrison of Havre (Stewart 1950). The next was in Dublin where an army hospital was built and equipped in 1600, but this was closed when James I reduced the garrison in Ireland.

At the beginning of the sixteenth century there were still no proper arrangements for the collection and transportation of those wounded in war. Usually the victorious general arranged for the local country people to carry away and treat the wounded left behind on the battlefield. In this period there was no separate medical organization for either the Army or the Navy. Among the famous surgeons to serve in both of these Armed Services were William Clowes (1540-1604), John Woodall (1569-1643) and Richard Wiseman (1622-1676), all of whom published works on the treatment of battle casualties. In 1598 surgeons were first appointed to companies of Essex’s Army in Ireland, since these were often on detachment. These appointments were abolished in 1655 when surgeons were posted instead in infantry regiments.

When in the reign of King James I expeditions were sent in 1620 to Germany to aid the protestant princes and, in 1624 to the Netherlands, they were accompanied by medical officers but had little or no provision for medicines or hospitals. In contrast the series of unsuccessful expeditions (1625-1628) to aid the Huguenots of La Rochelle had better medical arrangements. In 1627 the Commander, General Burroughs, wrote to the Duke of Buckingham: “If you expect men to fight, great care must be had in preserving them if they are hurt.” There are no figures available for the numbers of killed and wounded in these engagements, but many casualties were brought back to the ports on the south coast of England. In 1627 practical help was sought from London and given by the College of Physicians and the Barber-Surgeons Company, and some of the wounded were sent for treatment to London hospitals. It is perhaps significant that for the final expedition to La Rochelle in 1628 Peter Thorney (d. 1628) was appointed Chirurgeon of the Army both by Sea and Land.

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The Great Civil War of 1642-1646 gave great opportunities for improving the medical care of the sick and wounded. Oliver Cromwell was most solicitous for his sick and wounded soldiers. Sometimes the casualties were sent to London; for example, after the siege of Reading. At other times, as in 1645 in Bristol, wounded were treated there in temporary hospitals. During this era the London hospitals, especially St. Bartholomew's and St. Thomas's Hospitals, provided the only permanent arrangements for the treatment of sick and wounded soldiers. However, since these hospitals could admit only a limited number, and because of the need for a standing army, peacetime hospitals were required, Parliament decided to set up two military hospitals in London. The first was established in 1644 in the Savoy in the Strand and the second in 1648 in Ely House, off Holborn Hill. Together, these two hospitals, which could deal with all the sick of the garrison in London, had a total of 350 beds, with a staff of physicians, surgeons and 30 nurses. They were administered by the Commissioners of Hospitals.

During this period a military hospital, Heriot's Hospital, was established in Edinburgh, and another in Dublin in the Archbishop's House. All these were so costly to run that at the Restoration most of them were closed.

The Committee for Maimed Soldiers, which also controlled the Commissioners of Hospitals at that time, did much of the work which now devolves on our Ministry of Pensions. But eventually at the Restoration the disabled soldiers were discharged, those on pension each receiving 12 weeks' pay and recommendations for assistance to the Justices of their counties.

In the reign of Charles II, two foundations for the care of aged and ailing soldiers were established—the Royal Hospitals at Kilmarnham, Dublin (1680), and at Chelsea, London (1681). At the outset these two institutions were a form of insurance for the Army since all officers and men contributed generously to their building and maintenance.

In 1670, during the first and second Dutch Wars, the Ely and Savoy Hospitals were reopened under the Commissioners for sick and wounded seamen because the Navy was mainly involved.

Developments in eighteenth century

In Marlborough's Peninsular and Flander's campaigns (1702-1711) casualties were treated on the battlefield or in tents, because hospital accommodation was generally unsatisfactory. Later in 1742, as the result of the Battle of Dettingen, a considerable improvement took place in medical arrangements. There was a public outcry because so many British wounded were left on the battlefield in the care of the French surgeons. Soon afterwards a scale of marching and fixed hospitals was provided.

In Flanders, by 1748, Mr. David Middleton (d. 1785), Surgeon to the Forces under the Duke of Cumberland, had introduced a properly equipped hospital with separate beds, clean linen, and trained nurses in attendance. For the first time, surgeons were placed in charge of all the administrative arrangements, including the hospital clerks and storekeepers.

We may contrast this state of affairs with those in North America and in the American War of Independence. In 1759, in Wolfe's Battle for Quebec, there was
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neither transport for the wounded nor hospitals to receive them. At the Battle of Lexington in Kentucky (1775), medical arrangements were so inadequate that many of the wounded were killed by Indians, into whose hands they had fallen.

Probably Sir John Pringle (1707-1782) did as much as anyone to improve the health of the Army. As a result of his experience in Flanders he favoured the use of a number of regimental hospitals rather than one large one. For the campaigns of the War of the Austrian Succession he had flying (movable) hospitals set up near the camps and the stationary hospitals in the adjoining large towns. Pringle stressed the importance of proper disposal of the sick and wounded. He ordered medical officers not to send slightly ill soldiers to large hospitals, but to treat them in camp, or adjoining field hospitals. He said that “the more fresh air let into hospitals the less chance of spreading distempers.”

During the Seven Years War (1756-1763) for the first time, transport to bring the wounded to hospital was provided by contract. Dr. Richard Brocklesby (1722-1797), who served in Germany during this time, did much to remedy the shortcomings of regimental and field hospitals. He favoured the use of special huts in which to treat the sick and wounded. He urged cleanliness, ventilation, good diet and exercise for the preservation of health. In his opinion the directors of military hospitals should be responsible for medical planning, and for the care of all the patients. Incidentally, Brocklesby, with the assistance of Pringle and Dr. Francis Home (1719-1813), first introduced regular post-mortem examinations before they became routine in civil hospitals.

About this time it was Dr. Donald Monro (1727-1802) who first emphasized the place of prevention. He said “the preservation of the lives of soldiers is a matter of the highest importance.” Following his experience in military hospitals in Germany from 1761-1763 he urged “that hospital marquees be provided, with a proportion of hospital mates to be kept ready in case of action.”

Monro advised that regimental hospitals be employed, but also recommended the establishment of some general and convalescent hospitals. Among other things he advised the provision of water for drinking and ablution, more care with feeding and sanitation, and made plans for buildings to be kept dry and airy. He laid down a cubic capacity for each hospital bed and recommended that if, subsequently, fever appeared in a hospital, the number of beds should be still further reduced. It was his belief that hospitals should be neutral and protected by the parties waging war.

In 1787 Dr. Robert Hamilton (1749-1830) published his book on the duties of a regimental surgeon, in which he wrote that “more men perish in regimental practice for want of proper care than by the sword.” And again he stated “among the causes of sickness and death in the Army are the hospitals themselves.” He urged the keeping of proper patient records and said “when the hospitals were bad, the sick were better accommodated in tents.”

Under the influence of John Hunter (1728-1793) surgery gradually developed into a science. He served in the campaign in Portugal in 1762-1763 in a general hospital, which had a “black hole” with irons in which a doctor could confine rebellious patients and keep them on bread and water. It also had a full complement of efficient trained nurses. He preferred regimental rather than general hospitals and recommended
that a medical officer should be responsible for not more than 50 beds, of which half should be convalescent.

It was Dr. John Bell (1763-1820), who after experience at the Battle of Camperdown and service in the West Indies, made many recommendations in advance of his time. He urged improvement in rations and cooking; less general monotony in a soldier's life; changes of climate for regiments so that soldiers did not remain long in unhealthy places; that medical officers be taught to deal with the evacuation and treatment of wounded and how to improvise hospitals from public buildings and houses.

With a wide regimental experience in America and Europe Dr. Robert Jackson (1793-1843) was also able to make many changes for the better in army hospitals. He had a prolific pen and was a great sanitarian. Above all he urged the importance of an efficient medical staff. It was Dr. Theodore Gordon (d. 1845) who decided that unless a man was fit for full duty he should be in hospital.

Dr. John Rollo (d. 1809) likewise improved hospital conditions. He took great interest in their sites, construction, ventilation, and size for convenience of administration. He believed that cleanliness, decency, and regularity were essential in the management of a hospital, whether military or civil, and urged that surgeons should be responsible for the nurses and servants working under them. Later he became Surgeon-General of the Ordnance and built the Royal Artillery Hospital, Woolwich.

Medical care in the nineteenth century

From 1794 onwards Sir James McGrigor's autobiography is the source of much valuable information on hospitals. At Portsmouth he persuaded the Navy to allow him to take over a great part of Haslar Hospital to deal with the remnants of Sir John Moore's Army evacuated from Corunna. One of the main problems with which he had to deal was epidemic typhus. At Walcheren he was closely associated with Sir Gilbert Blane (1749-1834) and Sir George Ballingall (1806-1855). In 1812 he arrived in Portugal to join the Duke of Wellington and was highly esteemed because his estimate of casualties and numbers fit to rejoin their regiments was so often correct. It was McGrigor (1771-1858) who introduced the regimental aid post. The Duke favoured the general hospitals already established at home and abroad, but McGrigor persuaded him that the provision of regimental hospitals for every Corps in the Army was much to be preferred.

Dr. G. J. Guthrie (1785-1856), who, in Brussels, treated numbers of the wounded from Waterloo and made many advances in military surgery, also favoured regimental hospitals, and Sir George Ballingall referred to his general hospitals as "his general but necessary evils," because they generated diseases and the patients got into slovenly and irregular habits. The standard of hospitals after the Battle of Waterloo as described by Drs. John Thompson (1765-1846) and John Hennan (1779-1828) was reasonably high.

By the time that Sir James McGrigor retired in 1851 the Medical Department of the Army was already organized on a sound footing; only specially selected and fit soldiers were allowed to proceed to overseas stations; hospitals were well equipped and staffed with properly qualified medical officers, and diseases like typhus, cholera and dysentery were under better control.
Before long the Crimean War broke out. During the winter of 1854, before Sevastopol, there was an absence of medical supplies and ambulance transport; complete lack of drugs and medical comforts and large numbers of soldiers rendered ineffective or dead from starvation. To those on the spot these happenings were not surprising. Apart from regimental and field hospitals of a sort, there was a general hospital at Balaclava, and two general hospitals at Scutari.

From the Royal Commission’s Report we learn of appalling conditions in hospitals and of inefficiency of the administrative staff. There was a total lack of trained attendants to deal with the sick and wounded. Apart from battle casualties, dysentery, frost-bite, cholera, scurvy and typhus took a heavy toll. The field hospitals were filthy and lacked mobility. There was no hospital clothing, no operating rooms and transportation of wounded was difficult. Accommodation, cooking and lighting were defective and there was a shortage of all kinds of stores, due in large measure to lack of transport for essential items.

It is beyond the scope of this paper to discuss the controversy between the principal medical officer, Sir John Hall (1795-1866), and the superintendent of the female nursing establishment, Miss Florence Nightingale (1820-1910). The story is already well known. However, this was a turning point in the history of army hospitals. Miss Nightingale certainly raised the whole status of the nursing profession, and, henceforth, military hospitals were to be models on which all hospitals should be built.

A series of Royal Commissions considered every aspect of hospital construction, the practical effect of which was “to purify the air in and around wards, with a resulting improvement in the health and efficiency of the Army.” At that time the regimental hospital was often a dingy part of barracks or an adjoining house rented for the purpose. These could be discovered in many garrison towns and did little credit to the regiment or to its surgeon.

The regimental system of army hospitals lasted until 1859, after which they were gradually superseded by a series of larger permanent general hospitals built on the pavilion plan, in order to permit maximum fresh air and sunlight to reach the wards. Among them, the following hospitals were opened: 1863, Royal Victoria Hospital, Netley (1,000 beds), 1866, (Royal) Herbert Hospital, Woolwich (650 beds), 1879, Cambridge Hospital, Aldershot (268 beds), and in 1905, the Queen Alexandra Military Hospital, Millbank (200 beds).

Treatment of wounded in the field

The campaigns of the last century have effected a gradual improvement in the hospital treatment of battle casualties.

The Zulu War of 1879 was notable in this respect. Each regiment was supplied with a medical officer and stretcher-bearers; bearer companies were provided to collect wounded and transfer them to hospital; the field hospitals employed were of both the movable and stationary types, where patients remained awaiting transfer to the base, and for the first time a contingent of nurses took part in a campaign. Finally, the hospital at Rorke’s Drift gained fame because it put up a valiant defence when overrun by a savage and ruthless enemy. An important result of the campaign was that special medical transport was recommended for the sick and wounded.
It was therefore not surprising that in the Egyptian Campaign of 1882 the scale of field hospitals and bearer companies was satisfactory. A group of voluntary nurses formed part of the force and were awarded campaign medals for the first time. As a result the standard of nursing in the field was raised, and hospital cooking and dieting improved.

Field medical care since 1900

The South African War tested the mobility of the Army. A number of bearer companies were provided, which moved with battalions. These collected casualties and transported them to field hospitals where they were retained and treated until they were sent to the base. Altogether, there were 19 bearer companies, 28 field hospitals, 60 stationary hospitals (mostly tented) and 22 general hospitals, scattered over an area of more than 600,000 square miles of difficult terrain. Incidentally, during this war X-rays were used for diagnosis in a British field force hospital for the first time.

Dust, flies, shortage of water, poor roads and a lack of suitable transport added to the difficulties. Outbreaks of dysentery, typhoid and other epidemic diseases greatly extended the medical services, which were not equal to the task. The majority of wounds were caused by long-range small-bore bullets and this led to the belief that surgery should be undertaken only after evacuation to the base. Moreover, it was held that the surgeon's role in the field was to deal solely with complications of wounds such as haemorrhage and infection.

Field medical arrangements in three major wars.

- **SOUTH AFRICAN WAR**
  - Fighting Troops
  - Bearer Company
  - Brigade Field Hospital
  - Divisional Field Hospital
  - Stationary or General Hospital

- **WORLD WAR I & II**
  - Fighting Troops
  - Field Ambulance
  - Casualty Clearing Station
  - General Hospital

- **ZONES**
  - Collecting, Sorting and Minor Treatment
  - Emergency Surgery and Early Treatment
  - Long-term and Specialist Treatment

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World War I

By the time that World War I had broken out bearer companies and brigade field hospitals were combined to form mobile units called field ambulances. Next in the chain of evacuation was the casualty clearing station, really a small general hospital for the forward area. This was a static clearing and evacuation unit, in which it was not intended to retain casualties longer than was necessary. These units, and arrangements, were suitable for the trench warfare into which the war on the Continent developed.

Later, these casualty clearing stations, reinforced by surgical teams, carried out the early surgery of war wounds. However, in the rapid advance of 1918 these units were left far behind, and little surgery was then possible at a casualty clearing station. Fortunately, the war ended before any breakdown in the medical arrangements occurred. For the first time specialization and need for special hospitals was recognized. In this war, too, voluntary bodies like the British Red Cross Society and the Order of St. John rendered splendid service and have since formed an integral part of the medical services in war.

World War II

As World War II progressed new factors affecting medical care confronted the Army, including new weapons, modern advances in medical sciences and circumstances of total war involving the deployment of mobile forces in a series of campaigns on many fronts.

It therefore became necessary to increase the mobility of field medical units in the forward areas generally. In addition, it was soon found that airborne and commando forces needed independent medical cover. Further, in order to supply good nursing, early surgical treatment, blood transfusion and chemotherapy, medical support had to be disposed as far forward as practicable. Then, with evacuation by land, air or sea to base and home hospitals, early definitive treatment gave the soldier the best chance of recovery in ideal conditions.

Conclusion

Finally, it might be said that the development of service hospitals and the comprehensive care of the soldier, and later of his family, may be seen as a forerunner of the civilian health services.

REFERENCES