# Daily Medical Care in the British Army during the Crimean War, 1854-56

#### Mike Hinton

Tunbridge Wells, Kent, UK. Email: mike.hinton tn1@blueyonder.co.uk

#### Abstract

The British Army was located in Turkey, Bulgaria, and the Crimea for 27 months between April 1854 and July 1856, with the serious fighting and its aftermath lasting from September 1854 to November 1855. The objective of this essay is to highlight some of the diseases encountered on a day-to-day basis during the campaign, together with a section on wounds and injuries. No information from the Medical Officers' day books has been published and so their nature can only be surmised from the more serious cases of these diseases that were hospitalised, and which between them accounted for about nine in ten admissions. The campaign took place during a cholera pandemic and, before the hypothesis that cholera was waterborne was accepted by the medical professions at large, it accounted for over a quarter of deaths from disease in hospitalised patients. The majority of deaths from other diseases, principally diarrhoea, dysentery and continued (probably typhoid) fever occurred between November 1854 and March 1855; this reflected the catastrophic deterioration in the health of the troops that occurred after a severe storm on 14 November which caused devastation ashore and the loss of many ships carrying vital supplies of all description. Mortality was considerably lower during the other 22 months of the campaign and, with the exception of battle injuries and tending cases of cholera, much of the clinical work of the Medical Officers during this time would have been more akin to that of their civilian counterparts.

#### **Keywords**

Crimean War, Medical care, Infectious and non-infectious disease, Battle and accidental injuries

#### Introduction

The term Crimean War is often used to define the conflict that took place during 1853-1856 between Russia on the one hand and the Ottoman Empire, the British, French, and Piedmont/Sardinia on the other. This term is misleading as hostilities took place on four fronts, namely the White Sea, the Baltic, the Russian Pacific coast, and the Crimean region (the latter campaign also involving present-day Romania and Bulgaria, eastern Turkey and the Caucasus). A more accurate name is the War with Russia, a term often used in contemporary accounts. However, the Crimea was the principal theatre of operations, and as the war is remembered principally for the battle of Balaklava and the beneficial contribution of Florence Nightingale and her nurses, it is called the Crimean War in common parlance and this designation is used in this paper.

The British and French governments declared war on Russia on 28 March 1854. Elements of the British Army began to arrive in Turkey during April 1854, and after spending the summer in Bulgaria landed in the Crimea on 14 September. There were four pitched battles during this Eastern campaign: the Alma (20 September), Balaklava (25 October), Inkerman (5 November), and Tchernaya (16 August 1855), the last of which did not involve British troops. The siege of Sevastopol lasted about a year and ended on 9 September 1855. Hostilities were effectively over by the end of November 1855, the Peace Treaty was ratified on 27 April 1856, and the British Army finally left the peninsula on 12 July.

Following the war an official *Medical and Surgical History* was published as a parliamentary paper. This has made it possible to explore in detail what occurred from April 1854 to June 1856 as described *in extenso* elsewhere. 2

## Eastern campaign

The Eastern campaign – which took place during the pandemic of cholera – lasted 27 months. Active warfare and its aftermath accounted for fifteen months and during the rest of the time the Medical Officers (MOs) were acting more as general practitioners though under rather different and sometimes considerably more challenging circumstances than those experienced by their civilian counterparts.<sup>3</sup>

It was generally recognised that cholera was brought to the East by the French troops. It accounted for over a quarter of all deaths from disease in hospital (27.5 per cent) with most occurring between July and December 1854, and to a lesser extent May to August 1855 (see Figure 1).<sup>4</sup>

<sup>2</sup> Hinton M. Victory over Disease: Resolving the Medical Crisis in the Crimean War, 1854-1856. Warwick: Helion; 2019.

<sup>&</sup>lt;sup>1</sup> War Office. Medical and Surgical History of the British Army which Served in Turkey and the Crimea during the War against Russia in the Years 1854-55-56, Vol. II. London: HMSO; 1858.

<sup>&</sup>lt;sup>3</sup> For details of the organisation of the British Army of the East including the Army Medical Department and the numbers of regimental and staff surgeons employed each month. See: Hinton. *Victory over Disease*, 2019 (Note 2). Chapter 2.

<sup>&</sup>lt;sup>4</sup> Hinton. Victory over Disease, 2019 (Note 2). p.202-213.

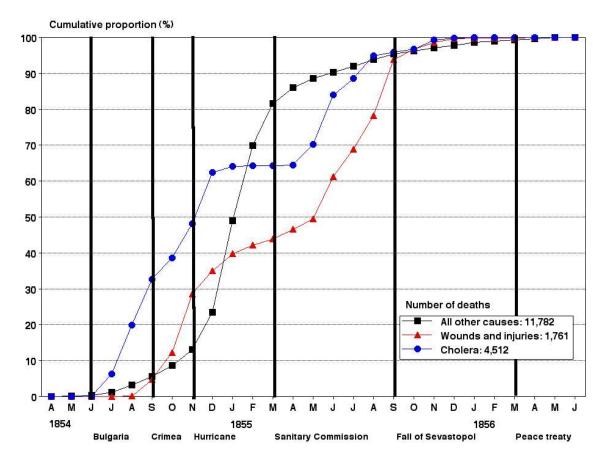


Figure 1. The cumulative proportion (%) of deaths from cholera, wounds and injuries, and all other causes (principally disease) among non-commissioned officers and men, April 1854-June 1856. Adapted from: War Office. *Medical and Surgical History*, 1858 (Note 1). General Return A.

Other conditions encountered during the first autumn and winter with a higher-thanexpected mortality included diarrhoea, dysentery, continued fever (probably typhoid), scurvy, and *gelatio*.<sup>5</sup>

A violent storm on 14 November that was characterised by strong winds and torrential rain wrought havoc in the camps, severely damaged developing infrastructure and caused the loss of transport ships laden with vital stores. In consequence the standard of living of the troops deteriorated disastrously and many were left destitute. Unsurprisingly the incidence of illness increased considerably and there was pressing need to evacuate large numbers of seriously sick and wounded soldiers who could not be treated in the Crimea. Many had a poor or hopeless prognosis and this resulted in a

<sup>&</sup>lt;sup>5</sup> The commentary in the *Medical and Surgical History*, 1858 (Note 1), p.189 concluded that in the first winter *gelatio* was frequently the result of 'protracted application of cold and wet' rather than 'the direct or specific of an extremely low temperature' suggesting it was more akin to trench foot. The severity would have been exacerbated by the general decline in the well-being of the men following the storm of 14 November. In the second winter the clinical presentation was more typical of frostbite.

dramatic increase in mortality in the over-burdened hospitals on the Bosphorus. Conditions in the camps improved during the spring with the arrival of sufficient food, clothing, fuel and other necessaries for life, and as the health of the troops improved mortality was reduced in the Crimea with a corresponding reduction in the evacuees sent to Turkey.<sup>6</sup>

The pattern of the diseases encountered changed month by month with the fatal illnesses experienced during the first winter being superseded by less life-threatening maladies during the second, a point made succinctly in a commentary in the Medical and Surgical History:

Nearly all the diseases ... were of a kind more or less incidental to troops employed on active service in the field, and familiar to the conditions of camp life. [The occurrence] of fevers and fluxes ... was merely remarkable for the amazing prevalence and mortality which, for a considerable period, they obtained.<sup>7</sup>

The numerical information in this essay was derived principally from a comprehensive summary table in the second volume of the Medical and Surgical History titled General Return A. The 113 conditions listed were divided into nineteen categories designated I-XIX; these are included in some tables where appropriate. Percentages are generally rounded to the nearest 0.5 per cent in the text and tables.

#### Medical conditions

Six diseases listed in General Return A accounted for nearly three-quarters (72.5 per cent) of hospital admissions: diarrhoea, dysentery, and continued fever, accounting for over half of these (54.5 per cent), while cholera, diarrhoea, continued fever, and dysentery were responsible for four-fifths of the deaths, namely 27.5, 22.5, 17, and 14 per cent respectively (Table 1).

The greatest mortality from disease occurred during the five winter months (November 1854 to March 1855) that bore the aftermath of the storm of 14 November 1854 when the troops were subject to considerable hardship. Accordingly, for the following analyses, the campaign has been divided for convenience into four consecutive phases: the seven months before November (April to October 1854), the winter months of hardship (November 1854 to March 1855), the spring and summer of 1855 up until the occupation of Sevastopol (April to September 1855) and the final nine months of the campaign (October 1855 to June 1856). The numbers of hospital admissions for diarrhoea, dysentery, continued fever, scurvy, gelatio/frostbite, and cholera, together with numbers of deaths recorded in the four phases are summarised in Table 2.

<sup>7</sup> War Office. *Medical and Surgical History*, 1858 (Note 1). p.45.

<sup>&</sup>lt;sup>6</sup> See particularly: Hinton. *Victory over Disease*, 2019 (Note 2). Chapter 7.

Condition	Total admissions (% of disease total)	Total deaths (% of total deaths)	Ratio of deaths: admissions (%)
Diarrhoea	44,164 (31)	3,651 (22.5)	8.5
Continued fever	25,013 (17.5)	2,790 (17)	11
Catarrh	10,083 (7)	240 (1.5)	2.5
Dysentery	8,278 (6)	2,259 (14)	27.5
Phlegmon/abscesses	7,922 (5.5)	23 (0.1)	0.3
Cholera	7,574 (5.5)	4,512 (27.5)	59.5
All other conditions	39,587 (27.5)	2,817 (17.5)	7
<b>Totals for disease</b>	142,621	16,292	11.5
Wounds & injuries*	18,279	1,761	9.5
Punishment (punitis)*	1,773	0	-

<sup>\*</sup> Comparative figures for non-disease admissions.

Table 1. Six medical conditions that each accounted for >5 per cent of hospital admissions for disease, April 1854-June 1856. Adapted from: War Office. *Medical and Surgical History*, 1858 (Note 1). General Return A.

Apart from cholera, the ratio of deaths to admissions was only elevated markedly during the first winter period, compared to the other times when it was much lower, though rather higher for dysentery (6.5 to 8 per cent) and continued fever (3 to 6.5 per cent). There was little difference in the deaths from cholera in the four phases. It was 60 per cent overall, which is comparable to what might have been expected at the time in a civilian urban population.

Several diseases occurred infrequently (<300 admissions) but had a ratio of deaths to admissions of >15 per cent; the highest being for apoplexy and tetanus (80 per cent). *Haemoptysis* (coughing up blood) and *phthisis pulmonalis* (tuberculosis), *rubeola* (measles), and *variola* (smallpox) – endemic in many civilian populations – were relatively uncommon as reasons for hospitalisation (Table 3).

Nearly 40 conditions with a low mortality amongst ten or more hospitalised patients are listed in Table 4.

Catarrh, colic, rheumatism, *phlegmon*/abscesses, ulcers, syphilis, punishment and eye infections were the most common, and accounted for nearly a fifth of hospital admissions not associated with enemy action and traumatic accidents (19 per cent). It is probable most of those examined by the MOs would have been treated as outpatients and not referred to hospital; however, no records of their incidence have been preserved. The conditions included in Table 4 occurred throughout the campaign and this suggests that the difficulties faced during the first winter did not result in them becoming significantly more life threatening in hospitalised patients, in contrast to diarrhoea, dysentery and continued fever.

Daily Medical Care in the British Army during the Crimean War (Hinton)

Condition	Phase of campaign	Total admissions (number/month)	Total deaths (number/month)	Ratio of deaths: admissions (%)
Diarrhoea	Apr-Oct 1854 Nov 1854-Mar 1855 Apr-Sep 1855 Oct 1855-Jun 1856	11,711 (1,673) 14,502 (2,900) 13,469 (2,245) 4,482 (498)	216 (31) 3,065 (613) 290 (48.5) 80 (9)	2.0 21.0 2.0 2.0
	Totals	44,164	3,651	8.5
Dysentery	Apr-Oct 1854 Nov 1854-Mar 1855 Apr-Sep 1855 Oct 1855-Jun 1856	1,045 (149) 3,710 (742) 2,544 (424) 979 (109)	83 (12) 1,913 (383) 200 (33.5) 63 (7)	8.0 51.5 8.0 6.5
	Totals	8,278	2,259	27.5
Continued fever	Apr-Oct 1854 Nov 1854-Mar 1855 Apr-Sep 1855 Oct 1855-Jun 1856	4,628 (661) 6,156 (1,231) 10,699 (1,783) 4,130 (459)	303 (43) 1,692 (338) 675 (112.5) 120 (13.5)	6.5 27.5 6.5 3.0
	Totals	25,613	2,790	11.0
Scurvy	Apr-Oct 1854 Nov 1854-Mar 1855 Apr-Sep 1855 Oct 1855-Jun 1856	91 (13) 1,649 (330) 118 (19.5) 238 (26.5)	2 173 (34.5) 2 1	2.0 10.5 2.0 0.5
	Totals	2,096	178	8.5
Gelatio/ frostbite	Apr-Oct 1854 Nov 1854-Mar 1855 Apr-Sep 1855 Oct 1855-Jun 1856	5 1,918 (383.5) 1 474*	2 455 0 6	40.0 23.5 - 1.5
	Totals	2,398	463	19.5
Cholera	Apr-Oct 1854 Nov 1854-Mar 1855 Apr-Sep 1855 Oct 1855-Jun 1856	3,067 (438) 1,816 (363) 2,368 (395) 323 (36)	1,745 (249) 1,157 (231.5) 1,423 (237) 187 (21)	57.0 64.0 60.0 58.0
	Totals	7,574	4,512	59.5

<sup>\*</sup> Cases of frostbite rather than *gelatio* with 460 (97 per cent) being admitted to hospital between December 1854 and March 1856.

Table 2. Admissions to hospital and deaths from diarrhoea, dysentery, continued fever, scurvy, *gelatio*/frostbite, and cholera at different times during the Crimean campaign, April 1854-June 1856. Adapted from: War Office. *Medical and Surgical History*, 1858 (Note 1). General Return A. Percentages given to the nearest 0.5%.

Group	Diagnostic category (number of conditions)	Specific condition	Admissions	Deaths	Ratio (%)
II	Eruptive fevers (4)	Rubeola (measles) Variola (smallpox)	5 19	2 4	40 21
III	Respiratory disease (9)	Haemoptysis Phthisis pulmonalis	94 185	18 98	19 53
IV	Cardiovascular disease (6)	Carditis/Pericarditis  Morbus cordis (heart disease)	24 127	4 29	16.5 23
VI	Bowel disease (14)	Enteritis Gastritis Haemorrhoids Peritonitis	36 29 15 16	11 5 2 9	30.5 17 13.5 56
VII	Nervous disease (7)	Apoplexy Delirium tremens Paralysis Meningitis Tetanus	87 281 42 11 10	70 44 10 7 8	80.5 15.5 24 63.5 80
XIX	All other diseases (34)	Dropsy Erysipelas Sunstroke Gangrene	294 78 12 79	63 21 2 20	21.5 27 16.5 25.5

Table 3. Conditions with a deaths:admissions ratio of >15 per cent, which occurred infrequently (<300 hospital admissions) and were not associated with enemy action or traumatic accidents. Adapted from: War Office. *Medical and Surgical History*, 1858 (Note 1). General Return A.

Non-fatal conditions that accounted for fewer than ten admissions comprised: scarlatina (3 admissions), *varicella* (chicken pox; 2), phlebitis (3), sciatica (7), haematuria (1), *varicocele* (2), *concussio cerebri* (4), *morbus coxarius* (hip disease; 3), tumours (2), exostosis (8), necrosis, caries etc. (7) and poisoning (6). Those in which deaths were recorded were: *rubeola* (measles; 2 deaths/5 admissions). aneurism (8/9), splenitis etc. (1/9), diabetes (1/1), cystitis etc. (1/9), asphyxia (2/2), and intussusception (1/1).

Group	Category (number)	Specific condition	Admissions	Deaths	Ratio (%)
III	Respiratory disease (9)	Asthma	16	1	6
	1 3	Catarrh	10,083	240	2.5
		Dyspnoea	39	0	-
IV	Cardiovascular disease (6)	Palpitations	45	0	_
1.4	Cararovascular disease (0)	Varicose veins	55	0	-
<b>.</b>	D 11' (14)	G 1'	1.514	_	0.2
VI	Bowel disease (14)	Colic	1,514	5	0.3
		Constipation	348	0	-
		Dyspepsia	206	2 2	1
		Hernia	101	2	2
VII	Nervous disease (7)	Dementia etc.	44	4	9
IX	Rheumatic disease (5)	Arthritis	87	0	-
	,	Lumbago	131	1	0.75
		Rheumatism	4,906	232	4.75
		(acute & chronic)			
X	Boils, ulcers, etc. (4)	Fistula	129	3	2.3
Λ	Bolls, dicers, etc. (4)	Paronychia	401	0	2.3
		Phlegmon	7,922	23	0.3
		Ulcers	4,090	11	0.3
		Olceis	4,090	11	0.23
XI	Venereal disease (6)	Bubo	525	0	-
		Genital warts	76	0	-
		Gonorrhoea	622	0	-
		Hernia humoralis	682	1	0.15
		Syphilis	1,478	3	0.2
		Ulcerated penis	266	0	-
XII	Urogenital disease (9)	Stricture	139	2	1.5
	2	Ischuria/Dysuria	39	0	_
		Phimosis/Paraphimosis	31	0	-
XIV	Punishment (Punitis) (1)		1,773	0	-
XVII	Eye disease (1)		3,307	0	-
XVIII	Skin disease (1)		749	1	0.1
XIX	All other diseases (34)	Debility	214	12	5.5
	(5 .)	Epistaxis	10	0	-
		Otitis etc.	107	1	0.9
		Scabies	257	0	-
		Scrofula	99	3	3.0
		Tumours	62	1	1.5
		Vermes (worms)	68	0	-

Table 4. Conditions diagnosed ten times or more in hospitalised patients and not associated with enemy action or traumatic accidents. Adapted from: *Medical and Surgical History*, 1858 (Note 1). General Return A.

#### Medical care of women and children

The Crimean War was the last conflict in which women were permitted to travel with the army on a campaign. The numbers were strictly controlled but as they were attached to the regiments their medical needs, as well as those of any children, would have been provided by the regimental MOs. The nurses on the other hand were attached to hospitals and would have received treatment from staff surgeons. However, there are no detailed references to them in the *Medical and Surgical History*, though it was noted in the report on the 11<sup>th</sup> Hussars that: 'women suffered disease to the same extent as the men, one of them died with well-marked symptoms of cholera'.<sup>8</sup> A report of the delivery of a girl was printed in the *Lancet* and the poignant sequel to this event has been published.<sup>9</sup>

An inventory of the tombstones and grave markers in the Crimea and Turkey was prepared before the final evacuation of the British forces, and this includes entries for several wives and nurses.<sup>10</sup>

## **Medical Officers and support staff**

There is no section in the *Medical and Surgical History* on the cause of disease in MOs or support staff though information found in other sources on 86 individuals who died between July 1854 and June 1856 has been analysed.<sup>11</sup> This is inevitably an underestimate for deaths amongst the support staff as many would have been included in unpublished muster roles or similar official returns, if at all. The individuals comprised staff MOs (26), regimental MOs (24), MOs with the Turkish Contingent (which was in British pay) and Ottoman Imperial Army (3 each) and British German Legion (1), civilian surgeons (5), nurses, including two matrons (10), dressers and dispensers of medicines (4 each), hospital sergeants (2), and one apothecary, purveyor, hospital steward, and purveyor's clerk. The causes of death included cholera (33; 38.5%), fever (27; 31.5%), typhus (8; 9.5%), epilepsy/cerebral disease (3), dysentery (2), unspecified disease (8), battle injuries (2), and accidents including drowning (3).<sup>12</sup>

<sup>&</sup>lt;sup>8</sup> War Office. *Medical and Surgical History of the British Army which Served in Turkey and the Crimea during the War against Russia in the Years 1854-55-56, Vol. I.* London: HMSO; 1858. p.69.

<sup>&</sup>lt;sup>9</sup> Hinton M. The repatriation of an orphaned infant girl during the Crimean War. *Magna* [Journal of the Friends of the National Archives]. 2022; 33: 36-39.

<sup>&</sup>lt;sup>10</sup> Colborne J, Brine F. *The Last of the Brave; or Resting Places of our Fallen Heroes in the Crimea and at Scutari*. London: Ackermann; 1857.

<sup>&</sup>lt;sup>11</sup> Hinton M. Medical personnel, commissariat staff, veterinary surgeons, and chaplains who died during the Crimean War, 1854-1856. *Genealogists' Magazine*. 2021; 33: 477-82. Incidentally, the names of some of the medical personnel were inscribed on a memorial at the Military Hospital erected at Netley after the war. The monument was destroyed when the hospital was demolished.

<sup>&</sup>lt;sup>12</sup> Hinton, M. Fatal accidents and misadventure that occurred during the War with Russia, 1854-1856. *Soldiers of the Queen* [Journal of the Victorian Military Society]. 2022; No. 183: 36-43.

## Wounds and injuries

The bravery shown by MOs while tending casualties on the battlefield was acknowledged publicly by the award of three Victoria Crosses and other decorations; Table 5 indicates where they would have been located during five of the principal engagements with the Russians.<sup>13</sup>

	Battles			Siege operations	
Location for treatment	Alma 20 Sep 1854	Balaklava 25 Oct 1854	Inkerman 4 Nov 1854	Redan 18 Jun 1855	Redan 9 Sep 1855
Battlefield/front line Casualty clearing stations Regimental hospitals General hospitals	• - -	• - • ?	• - •	•	•
Transport for casualties					
Stretchers Ambulance waggons Railway Evacuation by sea	• - -	• ? -	•	• • • (•)	• • • (•)

• Utilised; (•) available if required.

Table 5. The management of men suffering battle injuries. Adapted from: Hinton. *Victory over Disease*, 2019 (Note 2). p.233.

Large numbers of casualties were sustained on only relatively few days, for example, the battles of the Alma, Balaklava, little Inkerman (26 October), Inkerman, capture of the Quarries (8 June), and the assaults on Sevastopol (18 June and 9 September 1855). In contrast, no casualties were recorded on 35 (11%) of 333 siege days; while overall the median number was eight; and was over 50 on 28 days (8%). Verall, wounds and injuries accounted for 18,283 (11%) of 162,673 of admissions and 1,761 (10%) of 18,058 deaths. The cumulative proportion of deaths by month is shown in Figure 1.

From the spring of 1855 two of the four general hospitals in the Crimea were used for the treatment of battle injuries (Figure 2). Between April and December the Camp General Hospital admitted 730 men from the front with gunshot wounds, of whom 184 (25%) died. In contrast, the Castle Hospital was used principally for convalescents; and of 1,783 admissions there were 82 (5%) deaths (Figure 3).

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<sup>&</sup>lt;sup>13</sup> Hinton M. The award of orders and medals to Medical Officers in the British Army during the Crimean Campaign. *Soldiers of the Queen*. 2020; No. 177: 30-34.

<sup>&</sup>lt;sup>14</sup> Most of these casualties would have been sustained during the five periods of intensive bombardment of Sevastopol that commenced on 17 October 1854, 9 April, 6 and 17 June, and 17 August 1855.

<sup>&</sup>lt;sup>15</sup> Hinton. Victory over Disease, 2019 (Note 2). Chapter 6.

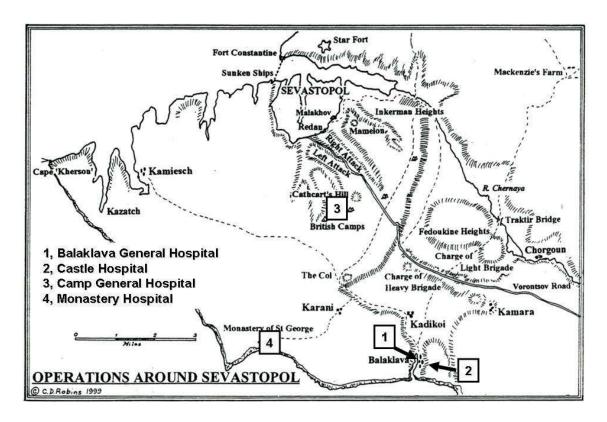


Figure 2. Location of the general hospitals in the Crimea. Reproduced with permission from Major (Retired) Colin Robins RA.

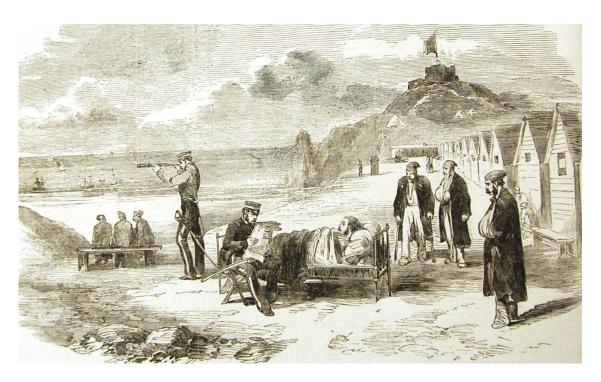


Figure 3. The new Castle Hospital at Balaclava. *Illustrated London News*, 28 July 1855.

Active warfare and its aftermath lasted from September 1854 to November 1855, while during the five months before and seven months afterwards the troops would have been involved in routine activities more akin to camp life in peacetime, with the exception of assisting in projects such as road building and collecting of salvageable military hardware and equipment. The wounds and injuries encountered during these two phases are summarised in Table 6.

	Apr-Au	ıg 1854 & I	Sep 1854-Nov 1855				
Condition		nissions er/month)	Deaths	Ratio (%)	Admissions (number/month)	Deaths	Ratio (%)
Luxations	768	(64)	0	-	765 (51)	2	0.25
Gunshot wounds	116	(9.5)	19	16.5	10,575 (705)	1,687	16.0
Incised wounds	561	(47)	2	0.5	709 (47)	16	2.5
Concussion	1,453	(121)	1	< 0.1	2,554 (170)	20	1.0
Fractures	172	(14.5)	2	1.0	206 (13.5)	12	6.0
Burns	197	(16.5)	0	-	202 (13.5)	0	-

Table 6: Accidents and injuries hospitalised during the Crimean campaign, April 1854-June 1856. Adapted from: War Office. *Medical and Surgical History*, 1858 (Note 1). General Return A.

With the exception of gunshot wounds (designated *vulnus sclopetorum* in General Return A) the mortality rate was generally low. Surprisingly perhaps, the mortality rate from gunshot wounds was similar in both phases.

#### A balanced perspective of medical care

The historiography of the medical aspects of the Crimean campaign has been distorted to an extent by the tendency to concentrate on the disasters of the first winter and the perceived incompetence of the heads of military and civilian departments, while the contributions made by Florence Nightingale (1820-1910) and the Sanitary Commissioners have been over-emphasised. Inevitably this has established an unbalanced view of what actually took place and this aspect of the war has been portrayed inaccurately in both academic works and popular culture. To One aspect of the MOs' duties that has received little attention from commentators was their role in providing routine health care for the troops, an activity that resulted in about 90 per cent

No. 75: 30-31. <sup>17</sup> For a discussion on peddling misinformation see: Hinton M. Reporting the Crimean War. *19*:

*Interdisciplinary Studies in the Long Nineteenth Century.* 2015; 20: 19.

<sup>&</sup>lt;sup>16</sup> See: Hinton M. Florence Nightingale and the British Sanitary Commission. In: Badem C. (ed) *The Routledge Handbook of the Crimean War*. Abingdon: Routledge; 2022. p.335-349; and Hinton M. Florence Nightingale: conceivably a secular saint, but not the saviour of the army during the Crimean War, 1854-1856. *Journal of the RSM Retired Fellows Society*, 2022;

of all hospital admissions. The analyses presented in this paper serve to illustrate the considerable range of medical conditions encountered though it is not possible to ascertain how common they were in the army as the majority would not have been hospitalised and it appears that official records of consultations with outpatients have not survived.

While the difficulties experienced during the first winter did not lead to a catastrophic strategic failure they were disastrous enough. The tenacity of those at the front did much to rectify matters. Their perseverance resulted in improved health care and hospital accommodation, the development of harbour facilities and roads, the rationalisation of land transport, the construction of a railway network, and the deployment of a floating bakery and flour mill, stream-powered saw mill, steam distilling vessels, and a factory ship. Together these developments ensured that the necessaries for life were eventually brought to the camps on a regular basis. The health of the troops improved considerably from the spring of 1855 and by 1856 the health of the army was deemed to be very good by the standards of the day.

There is thus little evidence to support the assertion that Nightingale made later to Lord Shaftsbury (1801-85) that the Sanitary Commission 'Saved the British Army' or indeed that their efforts were other than subsidiary. Rather, it was the progressive enhancement in the standard of living of the troops from early 1855 that resulted in the 'Victory over Disease' in 1856 which Lord Panmure (1801-74), the Minister for War and later 11<sup>th</sup> Earl of Dalhousie, acknowledged when proposing a vote of thanks to the armed forces in the House of Lords after the ratification of the Peace Treaty. <sup>19</sup>

The *Medical and Surgical History* provides no information after June 1856 as the British Army finally evacuated the Crimea a few days later on 12 July. Surprisingly perhaps, little was published on clinical topics either during or after the war. From this Shepherd concluded that: 'It was not easy to judge to what extent the intensive clinical experience in medicine and surgery gained ... was assimilated [and] influenced practice in either service or civilian life'.<sup>20</sup> Macleod and Fraser published on the surgical treatment of gunshot wounds.<sup>21</sup> However, it was probably not until the New Zealand or Maori Wars of 1863-66 that the benefits of avoiding interference with wounds, burning foul dressings, employing an effective disinfectant based on potassium permanganate and the insistence on frequent hand-washing were recognised. As a result, conditions including erysipelas, gangrene and secondary haemorrhage became less of a problem, while starving a fever and blood-letting both become a 'thing of the past'.<sup>22</sup>

<sup>&</sup>lt;sup>18</sup> Hodder E. *The Life and Work of the Seventh Earl of Shaftsbury, K.G., Vol. 2.* London: Cassell; 1887. p.195.

<sup>&</sup>lt;sup>19</sup> Lord Panmure, *Hansard*. HL Debate, 8 May 1856, Volume 142, Columns 182-193.

<sup>&</sup>lt;sup>20</sup> Shepherd J. *The Crimean Doctors: A History of the British Medical Services in the Crimean War, Vol. 2.* Liverpool: Liverpool University Press; 1991. p.597.

<sup>&</sup>lt;sup>21</sup> Macleod GHB. *Notes on the Surgery of the War in the Crimea with Remarks on the Gunshot Wounds*. London: John Churchill; 1858; and Fraser P. *A Treatise upon Gunshot Wounds of the Chest*. London: John Churchill; 1859.

<sup>&</sup>lt;sup>22</sup> Cantlie N. *A History of the Army Medical Department, Vol. 2.* Edinburgh: Churchill Livingstone; 1974. p.257.

### **Notable developments**

Victorian inventiveness resulted in various items of medical and other equipment being sent to the Crimea for assessment.<sup>23</sup> As early as July 1854 Dr John Hall (1795-1865), the Principal MO in the Army of the East, noted in his diary that he had been sent several 'new inventions to report on, as if we have nothing else to think about but the jims of quacks and speculators'. These included electro-magnetic coils for stimulating enfeebled patients, Barton's collapsible baths, washing machines, soda-water makers, vapour baths, waterproof beds, Liston splints, chloroform inhalers and patent cooking stoves. Hall's comment suggested that some of this equipment probably proved of little or no value, although he reported to Dr Andrew Smith (1797-1872), the Director General of the Army Medical Department (AMD), that vulcanised India rubber cloth was better than oiled cloth.<sup>24</sup> Also, Ritchie's cork mattresses proved 'A good and really useful invention for field service and in the event of the war continuing they will come into universal use'.<sup>25</sup>

Another notable initiative was the prefabricated hospital designed by Isambard Kingdom Brunel (1806-59) and erected at Renkioi. Unfortunately, it was far from the front and as it only came into operation after the fall of Sevastopol its groundbreaking design was not tested under conditions of active warfare. The conflict was also notable for the increasing exploitation of modern technology, for example, the use of steampowered ships and other equipment, a railway network and the electric telegraph. Other developments included the institution of the Victoria Cross, the contribution of charitable funds, the increasing power of the press, the impact of visual arts, and the interest in providing memorials for those who died of illness and wounds in the service of their country.<sup>27</sup>

From an official point of view the convening of the Royal Commission into the Sanitary Condition of the Army under the chairmanship of Sidney Herbert (1810-61) was probably the most significant immediate outcome and this led to a number of developments in the way the army was administered.<sup>28</sup> Some of the initiatives have been reviewed by Shepherd, Hinton, and other commentators.<sup>29</sup> <sup>30</sup> The continuing beneficial

<sup>&</sup>lt;sup>23</sup> Cantlie. A *History of the Army Medical Department*, 1974 (Note 22). p.136.

<sup>&</sup>lt;sup>24</sup> Hall to Smith, 24 April 1855. Royal Army Medical Corps Muniments Collection. Papers of Sir John Hall. Wellcome Collection Archives (WCA). RAMC/397/F/CO/1/2/1908.

<sup>&</sup>lt;sup>25</sup> Hall to Smith, 22 February 1856. Royal Army Medical Corps Muniments Collection. Papers of Sir John Hall. WCA. RAMC/397/F/CO/1/3/4287.

<sup>&</sup>lt;sup>26</sup> See: Silver C. *Renkioi: Brunel's Forgotten Crimean War Hospital*. Sevenoaks: Valonia Press; 2007.

<sup>&</sup>lt;sup>27</sup> Regarding charitable funds, for example: Fowler S. "Pass the Hat for your Credit's Sake and Pay-Pay-Pay": Philanthropy and Victorian Military Campaigns. *Soldiers of the Queen*. 2001; No. 105: 2-5.

<sup>&</sup>lt;sup>28</sup> Royal Commission Appointed to Inquire into the Sanitary Condition of the Army. Report of the Commissioners Appointed to Inquire into the Regulations Affecting the Sanitary Condition of the Army, the Organization of Military Hospitals, and the Treatment of the Sick and Wounded. London: HMSO; 1858.

<sup>&</sup>lt;sup>29</sup> Shepherd. *The Crimean Doctors*, 1991 (Note 20). Chapter 18.

<sup>&</sup>lt;sup>30</sup> Hinton. Victory over Disease, 2019 (Note 2). Chapters 9 & 10.

evolution of military medicine up to the present day has been summarised recently.<sup>31 32</sup> It is certainly extremely gratifying to appreciate how much improvement has occurred during the last 160 years or so!

#### Afterword

Sir Andrew Smith KCB(Civil) MD FRS and Sir John Hall KCB(Military) MD FRCS both came in for considerable criticism, particularly during the first year of the campaign. However, they both remained in post throughout when there would have been ample opportunities to have them replaced. Why was this? Could it be that they and their medical colleagues were good at their jobs and that the blame for the principal problems that beset the army during the winter of 1854-55 lay elsewhere, and not specifically with the AMD?

For example, Peter Benson Maxwell (1817-83), a barrister and one of the Hospital Commissioners sent to the East by the government in 1854, pointed out that the Parliamentary Select Committee, the so-called Roebuck Committee, had harassed Smith in the manner of their questioning though: 'after hearing all the facts, [they] ended by acknowledging the administrative handicaps under which [Smith] was forced to work and the inattention and rebuffs of so many of his proposals' and thus 'their final report contained no word of censure'.<sup>33</sup>

In like manner, Hall must have been sufficiently well regarded by Panmure to gain support for his application for an increase in his half-pay pension given that he had served for 39 years and eleven months. In the event an increase to £1 17s 11d, backdated to 1 January 1857, was authorised.<sup>34</sup>

<sup>34</sup> War Office. Application of Sir John Hall, Inspector General of Hospitals, for arrears of field allowance for Crimea service. The National Archives. WO 43/519. f.25-81.

<sup>&</sup>lt;sup>31</sup> Bricknell MCM, Ross DA. Fit to fight – from military hygiene to wellbeing in the British Army. *Military Medical Research*. 2020; 7: 18.

<sup>&</sup>lt;sup>32</sup> Hall TF, Bricknell MCM, Ross DA. Public health and military health. *Journal of Public Health*. 2022; 44(Supplement 1): i88-i93.

<sup>&</sup>lt;sup>33</sup> Cantlie. A History of the Army Medical Department, 1974 (Note 22). p.166.

## **Biographical Details**

Mike Hinton PhD DSc FRCVS FRCPath FRHistS was Reader in Veterinary Public Health at the University of Bristol with a principal research interest in infectious diseases. His interest in the Crimean War was kindled when he realised that one of his two-times great grandfathers served throughout the campaign, the events of which were much influenced by infectious disease, particularly during the first winter. After retirement he registered for a second PhD degree at KCL under Professor Andrew Lambert and the resulting thesis formed the basis of his book *Victory over Disease: Resolving the Medical Crisis in the Crimean War, 1854-1856.* It was published by Helion in 2019 and provides an explanation based on primary sources – and hopefully without the benefit of hindsight – for events that have been, and still are, portrayed inaccurately in both academic works and popular culture.

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