WORLD WAR 100+
CASUALTY CLEARING STATION GAME
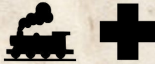
STUDENTS' HANDBOOK
REFERENCE, HINTS & TIPS

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DO YOU HAVE WHAT IT TAKES?

Have you got what it takes to be a Medical Officer (MO) in a First World War Casualty Clearing Station? The Royal Army Medical Corps (RAMC) is a specialist corps in the British Army which provides medical services to all British Army personnel and their families in times of war and peace. As MOs in the RAMC you may only use your weapons for self defence.

Your role is to make life-or-death decisions about the injured soldiers brought to you at the Casualty Clearing Station. You will decide what happens to each injured soldier based on the probability of them surviving each given action as below:

	Is the soldier strong enough to be treated by you and your staff at the Casualty Clearing Station before being returned to fight on the Front Line?
	The soldier has injuries bad enough to be sent to the base hospital for further treatment. What are his chances of survival if he travels to the hospital without an operation, first?
	The soldier's injuries are so bad that he needs to go to the base hospital, and he will also need a minor operation before he travels. What does transporting a patient after surgery do to their chances of survival? You will have to calculate the probability of both actions.
	Are the soldier's chances of survival so bad that palliative care is the only option? It's a tough decision, but you only have time to make your patient comfortable with pain relief before they die from their injuries.

DO YOU HAVE WHAT IT TAKES?

You are working for the British Army to ensure as many men as possible are well enough to fight on the Front Line.

This means that although you know a soldier's chances of survival are higher if he is sent to base hospital where he will receive a warm bed and food, you must send those who are strong enough straight back to the Front Line.

In the same way, you must not suggest unnecessary care for men who have very little chances of survival.

AIM OF THE GAME

During a set period of gameplay, as decided by the teacher, you must decide the correct referral choice for each patient based on the one with the highest probability of survival (as a percentage).

To win, you must have more correct answers in a faster time than your opponents. Process your injured soldiers correctly as quickly as you can.

If there is a tied score, the team with the lowest time wins.

WHAT'S IN THE BOX?

The game is best played in pairs against an opposing pair. You will need calculators.

Each Casualty Clearing Station Board Game includes:

1 x Playing board

1 x Teacher's guide

1 x Booklet: 'Treatment of Injuries on the Battlefield'

2 x Students' handbooks (1 for each MO pair)

2 x Shared dice

2 x Playing pieces (1 for each MO pair)

36 x Patient cards (20 x Hard, 16 x Easy)

17 x Fate cards

2 x Blank MO dry wipe charts

2 x Dry wipe marker pens

1 x Game clock (plus 1 x battery)

PLAYING THE GAME

1. Teams must write their names at the top of their MO dry wipe chart.

2. Start playing pieces at the place marked with an Army Issue Arrow:

3. Before the game starts, MO pairs should check no clocks are running, the buttons are in the neutral position, and clocks show the same time.

4. Before the first team rolls the dice, the other team must press the button nearest to them on the clock. This will start the first team's time.

5. First team to roll the dice and move their playing pieces the required number of spaces. Follow the board rules to play the game. At the end of the turn, the first team will start the second team's time by pressing the clock button nearest to them. Teams will continue to play the game, with alternating turns, pressing the button every time a move is completed.

6. After landing on a:
FATE CARD, pick one card from the top of the pile and read the information aloud. There may be information about real Casualty Clearing Stations or the chance to deal with another injured soldier. Once the turn has finished, the card should be placed on the bottom of the pack. If there is a time bonus/penalty, a note of these should be made on the dry wipe MO chart until the end of gameplay.

HAVE YOU GOT WHAT IT TAKES?

<u>OBJECT SQUARE</u>, the associated time bonus/penalty should be listed on the MO dry wipe chart for adding/subtracting at the end of gameplay.

<u>PATIENT CARD</u>, pick up a patient card from the top of the pile. This will indicate the patient's rank, injury and/or related condition, which should be written on the MO dry wipe chart (see page 1 of this guide to recall the four options). Using the Patient Survival Chart (on pages 7-8 of this handbook) find each patient's specific injury and calculate the chances of survival. To make the correct referral choice, players MUST follow the rules on page 9. Write the probability of survival as a percentage on your MO dry wipe chart. The completed patient card must be put face-down away from play for the end of the game.

7. The teacher will decide when gameplay must stop. Both clocks should be stopped by pushing the buttons half way down. Each team should note their time, and add/subtract any time bonuses/penalties. If gameplay finishes in the middle of a calculation, stop.

8. Swap MO charts for marking.

9. The correct referral choice and survival chance will be read out by the teacher.

10. The winner is the MO team with the most number of correct answers in the fastest time. If there has been a tie, the teacher may include a quiz.

Medical Officer's Patient Survival Chart

	PROBABILITY OF SURVIVAL AFTER REFERRAL	
INJURY / CONDITION	SENT BACK TO THE FRONT LINE AFTER MINOR TREATMENT.	TRANSPORTED TO BASE HOSPITAL. NO OPERATION REQUIRED.
Minor burns to hands	0.95	0.99
Frostbite	0.88	0.97
Shrapnel in lower leg	0.81	0.81
Dysentery	0.83	0.90
Trench foot	0.80	0.90
Typhus	0.30	0.80
Shrapnel in chest (non-severe)	0.40	0.77
Non-severe head wound	0.60	0.75
Gunshot to upper arm	0.40	0.84
Chlorine gas poisoning	0.20	0.70
Severe burns	0.00	0.25
Lost lower leg	0.00	0.40
Shrapnel in chest (severe)	0.05	0.20
Severe head wound	0.00	0.10
Stomach wound	0.05	0.10
Crushed upper leg	0.00	0.10

	PROBABILITY OF SURVIVAL AFTER REFERRAL		CHANCE OF SURVIVAL REDUCED...	
	RECEIVED MINOR OPERATION BEFORE TRANSPORTATION.	TRANSPORTED TO BASE HOSPITAL AFTER OPERATION.	IF INFECTED, CHANCES REDUCED BY:	IF IN WOUND SHOCK, CHANCES REDUCED BY:
	0.99	0.99	0.5%	1%
	0.99	0.99	9%	–
	0.90	0.95	8%	5%
	0.95	0.98	1%	–
	0.93	0.98	4%	–
	0.85	0.90	5%	–
	0.80	0.88	6%	5%
	0.79	0.81	4%	5%
	0.88	0.97	5%	6%
	0.72	0.90	–	2%
	0.35	0.50	10%	10%
	0.65	0.80	8%	6%
	0.35	0.80	6%	7%
	0.16	0.70	10%	10%
	0.17	0.65	10%	10%
	0.15	0.70	10%	10%

THE FOLLOWING RULES MUST BE OBEYED

1.   If a referral gives a soldier >0.80 survival chance after minor treatment, as seen in the YELLOW column in the Patient Survival Chart, the patient should be sent back to the Front without any further time being spent on calculating probabilities (see Rule 4).

2.   If the initial figure in the YELLOW column is below or equal to 0.80 but higher than or equal to 0.20, then the team must calculate which of the referrals gives each injured soldier the best survival chance. To do so, the relevant MO team should assess the probabilities of the BLUE column versus the two GREY columns combined. By multiplying the two GREY columns the correct probability for this referral will be found. The MO pair will then decide which has the highest probability of survival, not forgetting the option offered in Rule 3.

3.   If highest survival chance is less than 0.20 after calculations from the Patient Survival Chart, only palliative care should be given. No further time should be spent calculating probabilities.

THE FOLLOWING RULES MUST BE OBEYED

4.   If HARD patient cards are used and the patient has multiple injuries, the MO pair must find the highest probability of survival by <u>multiplying</u> the separate highest injury referral data together to make the final calculation. A second injury will drastically reduce the chances of survival. MO pairs MUST NOT send a patient anywhere based on one injury alone.

5.   If HARD patient cards are used and the patient has <u>wound shock</u> or an <u>infection</u>, after calculating the probability the team should <u>subtract</u> the relevant percentage associated with that injury.

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