FACTORS RELATED TO ACCURACY AND COMPLETENESS OF FIELD MEDICAL DOCUMENTATION

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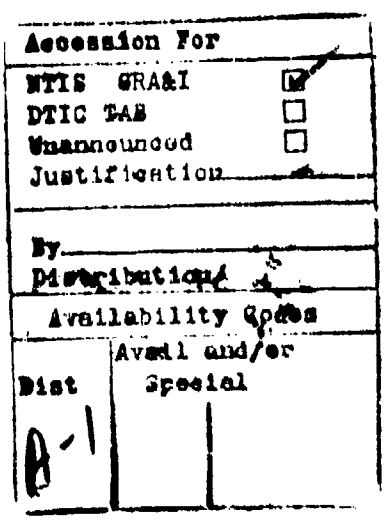
ABSTRACT

Medical data for combat casualties at the first echelon of care are often unavailable. The NATO-approved method for recording battlefield medical data, DD Form 1380 Field Medical Card (FMC), is frequently missing from casualty medical records. The objective of this study was to address this problem by investigating factors that affect the documentation of medical data during combat missions. Measurements were obtained to determine the amount of time required to complete a FMC and to assess the accuracy and completeness of the data recorded. Measures obtained during simulated combat training exercises were made during daylight, twilight, and nighttime conditions, and under varying levels of combat intensity. The results of the investigation showed that accuracy and completeness of FMC data were directly related to the time available or allotted to documentation by the corpsman. The average amount of time taken to complete the FMC was 3:09 min. This was estimated to be approximately one half of the amount of time allotted for the entire patient encounter. The average amount of time required to obtain data of acceptable accuracy and completeness was 3:26 min. These results indicate that it takes longer to produce satisfactory documentation using the FMC than conditions typically permit. Consequently, corpsmen appear to be making a rational decision to spend all available time on casualty treatment rather than use precious time to produce documentation that may be of little use.



PROBLEM

Medical data regarding injuries sustained and treatments rendered for combat casualties at the first echelon of care are often unavailable. The only NATO-approved method for collecting battlefield medical data, DD Form 1380, Field Medical Card (FMC), is often absent from casualty medical records. This information, however, is critical to the effectiveness of follow-on care.

OBJECTIVE

The goal of this study was to identify factors that affect the documentation of medical data during combat.

APPROACH

Navy corpsmen undergoing training at the Field Medical Services School (FMSS) at Camp Pendleton, California, were observed documenting simulated casualties under mock combat conditions. Measurements were obtained to determine the approximate time required to fill out an FMC and to assess the accuracy and completeness of the data obtained. These measures were made during daytime, twilight, and nighttime conditions, and under varying levels of combat intensity.

RESULTS

Accuracy and completeness on the FMC was found to be directly related to the time available or allotted to documentation by the corpsman. The average amount of time taken to complete an FMC, across all conditions, was 3:09 min. The average amount of time to obtain data of acceptable accuracy and completeness was 3:26 min.

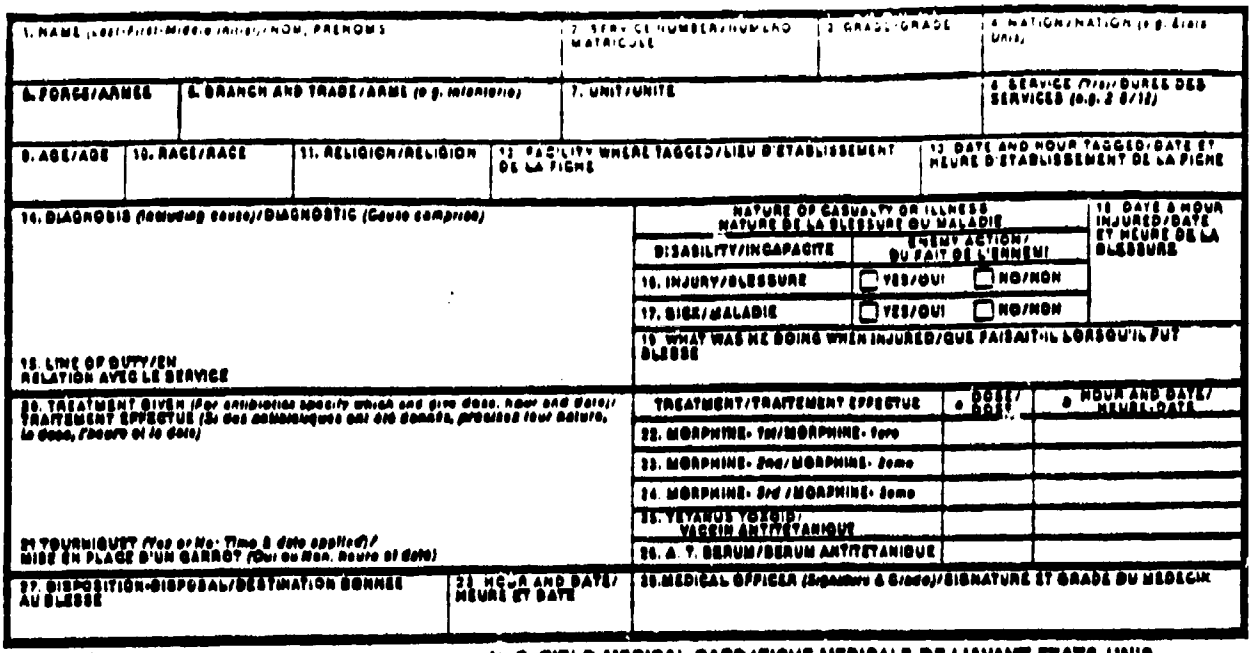
CONCLUSIONS

Very little time is available to document medical data during combat because of the need to treat other casualties. Unless nearly three and one half minutes is spent on documentation, the documentation is of little or no value. Therefore, it appears that personnel are making a rational decision not to document medical data when time is limited by combat intensity and the need to treat multiple casualties.

The Field Medical Card (FMC) (DD Form 1380) is the only NATO-approved method of acquiring battlefield medical information at the first level of combat casualty care (FMFM 4-5, 1982) (see Figure 1). Following treatment, Fleet Marine Force (FMF) Navy corpsmen are instructed to fill out the form for each casualty they encounter. This information is important for follow-on treatment as well as for logistic support. Corpsman, however, report that time pressure, battle conditions, and providing for the immediate needs of the casualty preclude them from filling out the required documentation as accurately and as completely as most agree they should (Wilcox & Pugh, 1987). In fact, the absence of FMCs in medical records suggests that, during combat, medical data was often not documented. During Operation Just Cause only a small percentage of casualties had any field documentation and only a portion of the those cases had documentation which included a DD Form 1380 (G. S. Haslam, U.S. Army Operations Analysis Office [Personal Communication, 1990]). Similarly, it was observed that during Operation Desert Shield/Desert Storm, very few casualties were accompanied by a DD Form 1380 (J. T. Coyne, CDR 1st Field Surgical Support Group [FSSG] [personal communication, 1991]).

Recording battlefield clinical data, under the best circumstances, is labor-intensive and time-consuming (Wilcox & Pugh, 1990). The difficulty in documenting casualty medical data becomes greater as pressures to evacuate heighten and battle conditions deteriorate (Gunderson et al., 1984). As combat intensity increases, time constraints exert a more powerful and controlling influence on the documentation effort. Medical personnel with combat experience and those currently on staff at combat training facilities state that Navy corpsmen and Army medics often do not have the time necessary to complete the FMCs properly (Wilcox & Pugh, 1990).

The purpose of this study was to measure the amount of time needed to obtain medical documentation and to evaluate the accuracy and completeness of the information provided, under a range of battlefield conditions. Measures of documentation time, data accuracy, and data completeness were obtained by observing corpsmen completing Field Medical Cards during combat training exercises.



1. NAME (Last-First-Middle Initial)/NOM, PRENOMS
2. SERVICE NUMBER/NUMERO MATRICULE
3. GRADE/GRADE
4. NATION/NATION (e.g. United States)
5. FORCE/ARMEE
6. BRANCH AND TRADE/ARME (e.g. Infantry)
7. UNIT/UNITE
8. SERVICE (Prior)/DUREE DES SERVICES (e.g. 2 8/12)
9. AGE/AGE
10. RACE/RACE
11. RELIGION/RELIGION
12. FACILITY WHERE TAGGED/LIEU D'ETABLISSEMENT DE LA FICHE
13. DATE AND HOUR TAGGED/DATE ET HEURE D'ETABLISSEMENT DE LA FICHE
14. DIAGNOSIS (Including cause)/DIAGNOSTIC (Cause comprise)
NATURE OF CASUALTY OR ILLNESS
NATURE DE LA BLESSURE OU MALADIE
DISABILITY/INCAPACITE
ENEMY ACTION/DU FAIT DE L'ENNEMI
16. INJURY/BLESSURE ☐ YES/OUI ☐ NO/NON
17. SICK/MALADIE ☐ YES/OUI ☐ NO/NON
18. DATE & HOUR INJURED/DATE ET HEURE DE LA BLESSURE
15. LINE OF DUTY/EN RELATION AVEC LE SERVICE
19. WHAT WAS HE DOING WHEN INJURED/QUE FAISAIT-IL LORSQU'IL FUT BLESSE
20. TREATMENT GIVEN (For antibiotics specify which and give dose, how and date)/TRAITEMENT EFFECTUE (Si des antibiotiques ont été donnés, précisez leur nature, la dose, l'heure et la date)
TREATMENT/TRAITEMENT EFFECTUE
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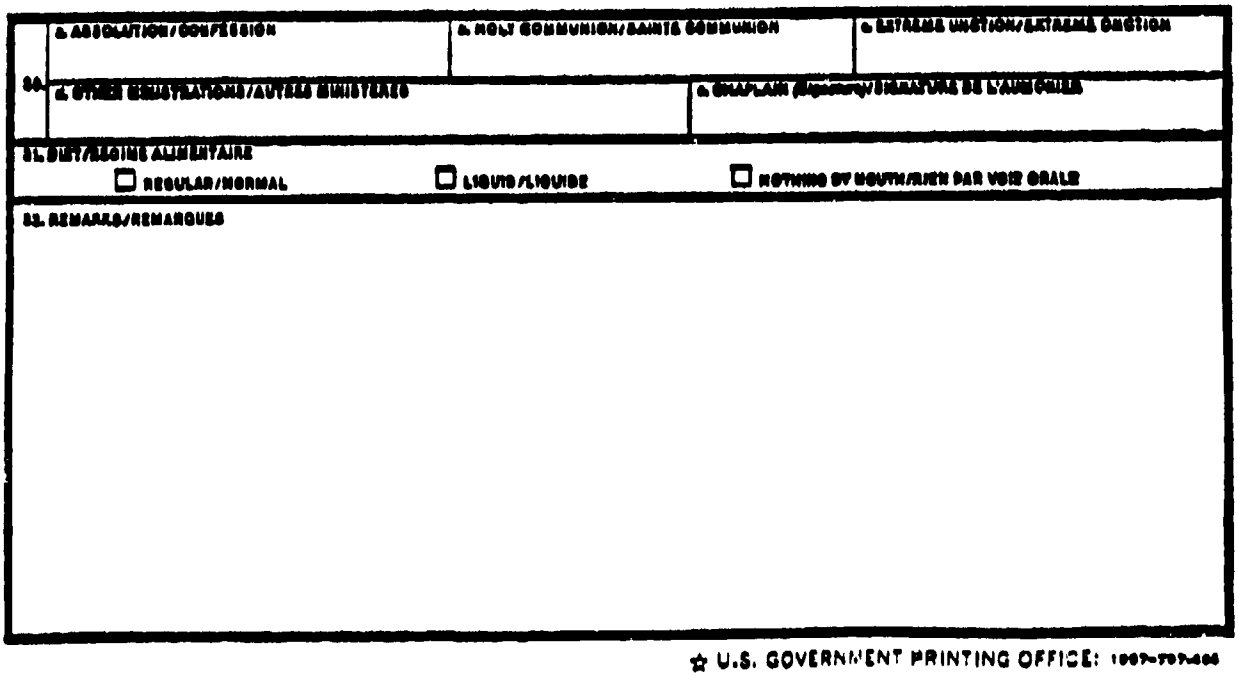
24. MORPHINE - 3rd/MORPHINE - 3eme
25. TETANUS TOXOID/VACCIN ANTITETANIQUE
26. A. T. SERUM/SERUM ANTITETANIQUE
21. TOURNIQUET (Yes or No: Time & date applied)/MISE EN PLACE D'UN GARROT (Oui ou Non. Heure et date)
27. DISPOSITION-DISPOSAL/DESTINATION DONNEE AU BLESSE
28. HOUR AND DATE/HEURE ET DATE
29. MEDICAL OFFICER (Signature & Grade)/SIGNATURE ET GRADE DU MEDECIN

DD FORM 1380, 1 JUN 62
S/N 0102-LF-013-9500

U. S. FIELD MEDICAL CARD/FICHE MEDICALE DE L'AVANT ETATS-UNIS



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b. HOLY COMMUNION/SAINTE COMMUNION
c. EXTREME UNCTION/EXTREME ONCTION
d. OTHER DENOMINATIONS/AUTRES MINISTERES
e. CHAPLAIN (Signature)/SIGNATURE DE L'AUMONIER
31. DIET/REGIME ALIMENTAIRE
☐ REGULAR/NORMAL ☐ LIQUID/LIQUIDE ☐ NOTHING BY MOUTH/RIEN PAR VOIE ORALE
32. REMARKS/REMARQUES

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Figure 1. Field Medical Card (DD Form 1380).

METHOD

Sample

Eighty-nine Navy corpsmen, undergoing FMF training at the Field Medical Services School (FMSS), Camp Pendleton, California, participated in the study. The FMSS was selected to provide the setting because of the structure of its training program. The school conducts an intensive six-week training program designed to prepare U.S. Navy corpsmen for a combat support role. Two of these weeks are devoted to field exercises in which the corpsmen practice implementing their medical and tactical skills in a simulated combat environment. Field medical documentation is an integral part of these exercises.

Field Conditions

During the field exercises, students are placed in mock combat situations and are required to perform simulated treatments on other students playing the role of battlefield casualties. These corpsmen must provide medical treatment without undue risk of injury to themselves, subjecting their patients to further injury, or compromising the position of their unit. The pressure of battle is simulated by instructors who continually remind students of the severe situational and time constraints. Students who fail to act in a timely manner, overlook pertinent situational circumstances or disregard various patient conditions are immediately made aware of the consequences of their actions.

Under typical FMSS training exercises, two battle scenarios are enacted. One is conducted in canyons located on the FMSS training site and another takes place at a simulated Battalion Aid Station (BAS) setup nearby. The scenarios serve to simulate battle conditions at the two levels of combat casualty care typically found at the first echelon of treatment. Following is a brief description of each locale:

1. Battlefield Scenario: During battlefield training, a platoon with its complement of corpsmen advances through a canyon which has been set up to provide hostile enemy encounters. Immediately following each simulated ambush, the corpsmen are required to respond to calls for medical assistance and take action to protect themselves and their patient(s) from immediate danger. Patients are triaged to determine treatment priority and then administered treatment. After treatment is rendered, the Field Medical Card is used to document all incidents.

2. BAS Scenario: During BAS training, casualty assessment and treatment similar to the first scenario are administered and documented for victims of mass casualty simulations. The pressure

under which this work is performed, however, is greatly reduced. The BAS also receives and reassesses those patients evacuated from the battlefield. Once triaged, the casualty is moved into the BAS tent where a second, more thorough, patient examination is initiated and the start of a complete treatment plan begins. The treatment recommended may include the use of intravenous fluids, antibiotics, or opening an airway by surgical procedure.

Measures of FMC documentation were made during the battlefield and BAS training scenarios. In both combat scenarios, researchers were paired with the Navy corpsmen designated to play the role of battle casualties. All acting patients participating in the study were fitted with identical simulated wounds. Sucking chest wound and amputated limb moulages were worn by all patients to add realism and to provide data consistency and comparability. Designated patients further simulated an injury by exhibiting behavior consistent with the type of wound moulages worn. In a typical training evolution, corpsmen responded to calls for medical assistance, treated their patients, and then documented patient identification, injury assessment, and treatment administered on the FMC.

To provide training under various environmental circumstances, both training scenarios were carried out during daylight, twilight, and nighttime hours. During daylight exercises, corpsmen filled out and attached Field Medical Cards under lighting conditions similar to those of their classroom training. As light levels diminished, corpsmen were required to conduct patient diagnosis, treatment, and FMC documentation with the aid of red-lens flashlights used under the concealment of a poncho to prevent detection by enemy units.

Measures

Time measures. Measurements, obtained by stopwatch, were taken to record the amount of time corpsmen used to fill out and attach the FMC. Time measurements were begun when the corpsmen first touched the FMC and ended when the card was attached to the patient. These measures were obtained during daylight, twilight, and nighttime operations during both Battlefield and BAS training scenarios for a total of 89 observations. Each observation included measures of the following two components of FMC documentation:

1. Patient ID documentation time: Defined as the amount of time spent by corpsmen obtaining and filling out information related to the top three lines of the FMC. Information on these lines (see figure 1) specifically pertained to casualty identification, such as name, social security number (SSN), branch of military, and religion. In addition, the date and time of documentation were also recorded on these lines. Recording time for each case started when the corpsman's hand first touched the FMC booklet or when a search was initiated for casualty information, such as

locating dog tags or questioning casualty regarding ID, and terminated with completion of the final identification or time/date entry.

2. Medical documentation time: Defined as the total cumulative time the corpsmen attended to information other than patient ID. Timing for this portion of documentation was begun upon completion of the patient ID section and continued as long as the corpsman focused attention on the FMC and concluded when the corpsman's hand left the card following its attachment to the casualty.

The recording of documentation time was suspended when the corpsmen's attention was momentarily diverted from the task to more pressing situational concerns, such as immediate patient need or danger imposed by heightened conflict intensity, and resumed once attention was refocused upon the FMC.

The specific documentation behaviors included locating and removing the booklet from a pocket or bag; leafing through the booklet for the next available blank card; removing the carbon protector from the booklet; searching for a writing instrument; visually surveying the card for the correct location to place information; verbally questioning the casualty for ID information; locating, identifying, and retrieving ID information from casualty dog tags; recording ID information, time, date, injury diagnosis, and treatment information on the card; removing the completed card from the booklet and attaching it to the casualty. Once the measures were obtained, the times recorded for the two documentation segments were added together to provide a cumulative FMC documentation time measure.

Treatment data quality measures. Each FMC was classified and placed into one of three categories based upon the completeness and accuracy of the medical treatment documentation. FMCs which correctly reported all required procedures for both a sucking chest wound (i.e., occlusive or plastic dressing) and a traumatic limb amputation (i.e., pressure dressing or tourniquet with a battle dressing) received the highest classification rating. In cases where all required treatment data were accurately and completely reported, a quality level of "Good" was assigned. The further the deviation from the correct documentation set, the lower the data-quality rating attached to the documentation. Each FMC was assigned to one of the three data- quality categories according to the following criteria:

1. Unacceptable - Either no treatment information was reported or treatment data were inaccurately reported.

2. Marginal - Treatment information for only one of the two injuries was completely and accurately reported.

3. Good - All required treatment information for both injuries was completely and accurately reported.

RESULTS & DISCUSSION

Overall FMC data accuracy and completeness were found to be very poor. For example, analysis of patient identification data revealed that both name and SSN were correctly recorded in less than 14 percent of the cases. Typically, only the last name or the last four digits of the SSN were recorded. In addition, other areas of patient identification data, such as grade, rank, and unit, were often left blank.

Despite the poor quality results for patient identification data, the time required for this portion of documentation still took more than 1 min with a mean of 1 min 15 sec being taken in the battlefield and 1 min 12 sec being taken in the BAS. As darkness approached, more time was taken to complete the patient identification fields. Documentation of patient identification at twilight, or during nighttime conditions with the corpsman and patient under a poncho utilizing a red-lens flashlight for illumination, required 1:22 min on the average. Daytime conditions permitted documentation of patient ID to be completed in an average of 1:02 min.

Table 1 presents the results obtained for the measures of clinical documentation accuracy and completeness. The findings indicated that the identification of both the type and location of injuries sustained were accurately and completely recorded in approximately 80 percent of the cases. Documentation of treatments, patient condition, and disposition, however, was not as accurate or complete. The reported use of tourniquets and dressings as well as indications of patient condition and disposition had a low frequency of being documented, and the information was often documented incorrectly. For example, in the cases relating to the treatment of amputations, corpsmen correctly documented the use of bandages and tourniquets only 30 percent of the time. Documentation of occlusive dressings, pressure bandages, and the administration of morphine also resulted in a large amount of missing or inaccurate information. Occlusive dressings, which should have been the first step in all attempts to treat a sucking chest wound, were correctly recorded in only 57 percent of the cases. The frequency for which patient conditions and disposition were recorded was also extremely low. Some type of reference to patient condition was observed in only 10 percent of all the records reviewed, while less than 2 percent of the cases indicated any reference to patient disposition.

TABLE 1

Percent of FMC Data Accurately and Completely Documented

Percent Correctly Documented*	Type of Documentation
	Specific Injury Documentation
	Injury Type
94.38%	. Sucking Chest Wound
90.70%	. Amputation
	Injury Location
95.51%	. Sucking Chest Wound
91.86%	. Amputation
	Overall Injury Documentation
80.90%	. Both Sucking Chest Wound & Amputation
	Specific Treatment Documentation
57.30%	. Occlusive dressing applied for Sucking Chest Wound
30.34%	. Pressure bandage or tourniquet w/ bandage used on Amputation
	Overall Treatment Documentation
26.97%	. Both Sucking Chest Wound & Amputation
	Patient Condition Documentation
10.11%	. Patient Condition
	Patient Disposition Documentation
01.12%	. Patient Disposition

*n = 89

Means and standard deviations for total FMC documentation time are presented in Table 2. The mean time allotted for filling out and attaching an FMC for all scenarios combined was just over 3 min ($\bar{X}$=3:09 min). A FMC breakdown of total documentation time by location revealed that corpsmen devoted more time to FMC documentation in the relatively stable and secure environment of the BAS than they did on the battlefield. This difference, however, was not found to be statistically significant.

Table 2

Means and Standard Deviations for Total Documentation Time

	N	Mean	SD
Both Scenarios	89	3:09	1:09
Battlefield Documentation Time	42	2:56	0:59
BAS Documentation Time	47	3:21	1:15

Figure 2 shows a trend toward longer documentation times as the level of ambient light decrease. It is likely that this tendency resulted from the nighttime requirement that corpsmen perform all functions requiring a flashlight under some type of concealment, such as a poncho. Conforming to this requirement made the documentation effort awkward and, therefore, more time-consuming. An analysis of variance (ANOVA) did not, however, yield a statistically significant effect for level of ambient light on the amount of time taken to produce documentation.

Table 3 shows the average time allotted for varying levels of data quality. FMCs with Marginal or Good data quality took, on the average, between 3:25 min and 3:27 min to complete, whereas, cards with data of Unacceptable quality were produced in an average of 2:36 min. The results of the ANOVA, presented in Table 4, shows a significant relationship between documentation time and data quality. This demonstrates that the variation in the quality of the data obtained with the FMC corresponds to the amount of time that was taken for documentation. The results of the Tukey pairwise comparison, presented in Table 5, shows that Good or Marginal field treatment data took significantly longer to obtain than that which is of Unacceptable quality.

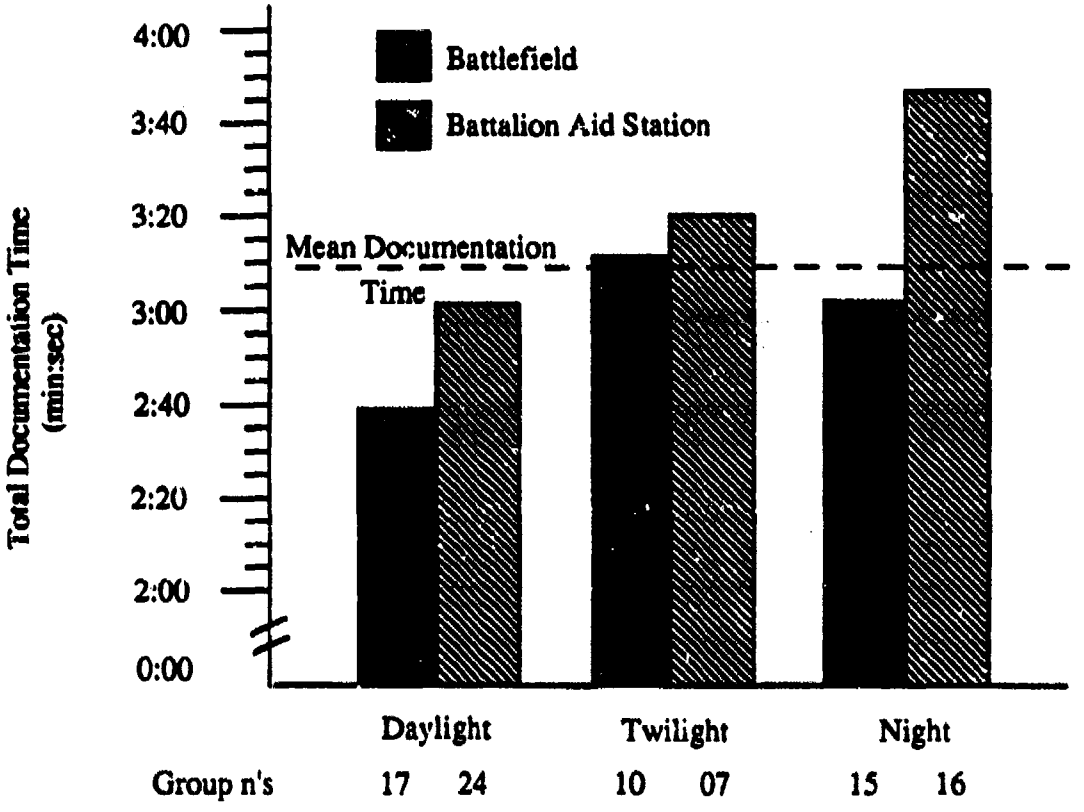

Figure 2. Average time allotted for Field Medical Card documentation during varying degrees of ambient light and combat intensity.

Table 3

Documentation Time Means and Standard Deviations For Each Level of Data Quality

Data Quality	N	Mean	SD
Unacceptable	30	2:36	0.43
Marginal	35	3:27	1:15
Good	24	3:25	1:13

Table 4

Analysis of Variance Results for Clinical Data Accuracy on Total Documentation Time

Source	MS	D/F	F
Data Quality	24481.2	2	5.75*
Error	4260.1	86	

*p<.005

Table 5

Tukey Pairwise Comparison Between Levels of Data Quality

Data Quality	P
Unacceptable vs. Marginal	<.01
Unacceptable vs. Good	<.05
Marginal vs. Good	NS

Table 6 shows the results of a stepwise polychotomous regression analysis of FMC data quality. These results demonstrate that in addition to time spent on the task, data quality is related to the level of ambient light present during the documentation effort. Figure 3 presents the zero-order effect of data quality graphically, showing that the poorest data is obtained during twilight and the best at night. The higher levels of data quality obtained during the nighttime exercises may be due to an increase in leniency demonstrated by instructors during the nighttime exercises. During the nighttime exercises, instructors appeared to respond to the increased demands of the situation by reducing the degree of pressure they exerted upon the students. During the twilight exercises, however, instructors failed to exhibit the same shift toward increased leniency in spite of the similar effects upon documentation exerted by the reduced level of ambient light. This difference in instructor attitude between the two conditions would account for the poorer data quality results obtained during twilight.

Table 6

Stepwise Polychotomous Regression Results Comparing the Effects of Total Documentation Time, Level of Ambient Light, & Location on Data Quality

Step Number	Term Entered	d/f	Log Likelihood Chi-Square	Improvement	P
0			-96.74		
1	Total Doc. Time	2	-90.41	12.47	0.002
2	Ambient Light Level	4	-85.45	9.91	0.042
3	Location	2	-84.56	1.87	NS

CONCLUSIONS

Manual documentation of field medical data is a labor intensive and time consuming task. In a simulated combat environment more than three minutes are required to obtain useful clinical data on the FMC. Documenting basic patient identification alone takes over one minute and typically only includes the last name and the four digits of the SSN. Therefore, during combat, time must be diligently managed to ensure appropriate care is given casualties. Consequently, corpsmen continually weigh the costs associated with each of their actions and as combat intensity escalates or the number of casualties increases, the pressure to prioritize tasks becomes increasingly critical.

The results of the current study showed that when insufficient time is available for documentation (3:25 min or less), the data provided is of little or no clinical value. It appears that corpsmen with combat experience quickly learn this relationship between time and documentation and choose not to initiate documentation when they know they will be forced to produce either an

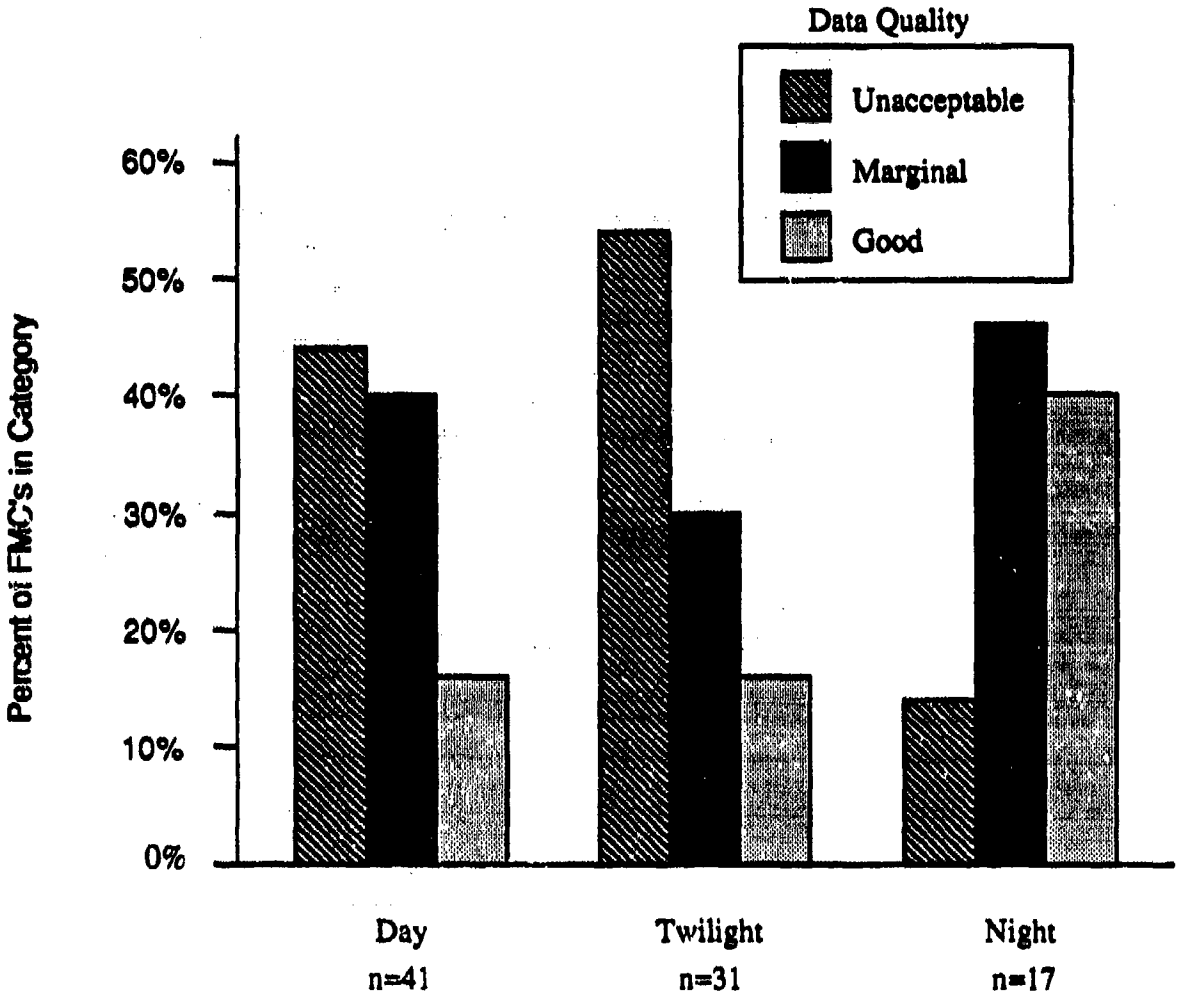

Figure 3. Distribution of Data Quality by Level of Ambient Light.

inaccurate or incomplete record of the patient encounter. As a result, during combat, it seems that corpsmen are making a rational decision when they chose to spend all available time on casualty **treatment rather than use precious time producing documentation that has little clinical value.**

REFERENCES

Coyne, J.T., CDR 1st Field Surgical Support Group [FSSG] (personal communication, 1991).

Fleet Marine Force Manual 4-5, 1982. Medical and Dental Support, U.S. Marine Corps PCN 139 000352 00, U.S. Government Printing Office, Washington, D.C.

Gunderson, E.K.E., Congleton, M.W., Ramsey-Klee, D.M., 1984. *Proceedings of the Conference on Fleet Marine Force Combat Casualty Information System.* (Report No. 84-15), San Diego, Naval Health Research Center.

Haslam, G.S., U.S. Army Operations Analysis Office (Personal Communication, 1990).

Wilcox, W.W., Pugh, W.M., 1987. *Design for a Combat Casualty Care Medical Information System (CCC/MIS).* (Report No. 87-36), San Diego, CA, Naval Health Research Center.

Wilcox, W.W., Pugh, W.M., 1990. *Evaluation of a Revised Field Medical Card for Navy and Marine Corps Personnel,* (Report No. 90-12), San Diego, CA, Naval Health Research Center.

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