

## **Type, Severity, Location, and Timing of Battle Casualties in a Croatian Army Brigade during an Offensive Action in 1992**

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**Aim.** To analyze the type, severity, location, and timing of casualties in a Croatian Army brigade during an offensive action against enemy forces of about two infantry battalions timely prepared for defense.

**Methods.** Casualties were analyzed according to bilateral manpower and equipment conditions, morale, time of the day, weather conditions, type of ground where the action took place, quality of planning and steering the course of the action, and especially the medical help. The action was carried out along one main and two auxiliary directions, including river crossing. The action involved about 1,000 soldiers and took 7 hours. It was divided into three phases: approaching the enemy, direct contact, and self-imposed retreat and evacuation. Medical care for the injured soldiers was organized in echelons, relying on civilian health care institutions.

**Results.** During the action, 92 casualties were recorded. The mean injury severity according to the Abbreviated Injury Scale (AIS) was  $2.9 \pm 1.4$ . The highest proportion of casualties occurred on the main direction (48 or 52.2%) but the most severe injuries were inflicted on the second auxiliary direction (mean AIS,  $2.6 \pm 1.4$ ). Extremely severe injuries (mean AIS,  $2.0 \pm 1.4$ ) were recorded on the second auxiliary direction during the phase of retreat after a successfully performed action. However, regarding the whole action, the observed differences did not prove to be statistically significant.

**Conclusions.** Offensive action was properly planned and successfully led during the first two phases. Evacuation and retreat of the brigade were in part poorly organized. Health care for the soldiers functioned well throughout the action.

**Key words:** army personnel; combat disorders; Croatia; injury severity score; military medicine; soldiers; war