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### Emergency Medical Ambulance Care in Iceland

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The responsibility for organizing medical ambulance services in Iceland rests with the primary health care centers and/or hospitals in each community. A state emergency medical ambulance council was founded to develop regulations for ambulance standards. A status survey is conducted every few years and the latest results will be presented. Ambulance transport is carried out by land, air, and sea. There are 48 ambulance services in as many communities, with more than 300 personnel and a total of 18,000 transports, averaging one transport per 14 residents annually. More than half of the ambulance personnel currently employed have attended medical ambulance courses, as the turnover in this profession is fairly high. These are employees of primary health care centers, the Icelandic Red Cross, and several other organizations. A total of 73 ambulances are in service. The Icelandic Red Cross owns the greatest number of them (75%) and operates over half of them (56%).

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### Traffic Accidents with Mobile Intensive Care Unit-Vehicles in Belgium

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**Objective:** To estimate the risk for a mobile intensive care unit (MICU) vehicle to be involved in a traffic accident and to describe the circumstances and consequences of the accidents.

**Methods:** Questionnaire sent to all Belgian hospitals with an emergency department and a MICU team.

**Results:** The response rate was 84% (42/50). In July 1991, all MICU vehicles had a collective mileage of 2,750,000 kilometers. A total of 126 accidents was reported. Twelve accidents, in which no other vehicle was involved, no physical injuries were incurred by the team members, and the vehicle acquired minor damage were excluded. Data on 114 cases (i.e., approximately one accident per 24,000 kilometers) were analyzed further. In 82 cases (77%), the circumstances of the accident were described, with collisions at crossroads ( $n = 34$ ) and sliding of the vehicle ( $n = 13$ ) reported most frequently. The MICU team was judged to be fully liable for the accident in 54 cases (47%) and partly liable in three cases (3%). Court decisions still are pending or unknown in three cases (3%) and five cases (4%) respectively. Injuries to team members were reported in 14 accidents (12%). Twenty-one vehicles (18%) were reported to be "total losses" (i.e., approximately one total loss per 130,000 kilometers).

**Conclusion:** The risk for a MICU vehicle to be involved in accidents with considerable material damage is substantial and in at least half of the cases, the MICU team is considered liable. In view of prevention, further study of the causes and circumstances seems indicated.

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### Cost Comparison of a Computerized System Versus a Manual System for Quality Assurance of Prehospital Paramedic Services

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**Objective:** The study aim was to compare the work time and costs of two different systems of prehospital care quality assurance (Q/A).

**Design:** Descriptive review of the two pre-established systems for 1991.

**Setting:** One Q/A system (#1) serves three paramedic services covering a two county area. The other system (#2) services an urban paramedic service.

**Participants:** #1 reviewed 4,031 advanced life-support (ALS) runs in 1991 and #2 reviewed 2,065 ALS and 1,827 basic life-support (BLS) runs in 1991.

**Interventions:** The first Q/A system (#1) uses computer optical scanning of the run report face sheet and keyboard entry of patient outcome and ALS skills performed. In 1991, 720 protocol noncompliance reports were generated. The second Q/A system (#2) had a chart completion check form filled-out manually for each run sheet. The physician director then read all the ALS reports and one-half of the BLS reports. A feedback form was filled-out for each chart meeting Q/A deficiency criteria for paramedic education (284 cases in 1991).

**Results:** The first Q/A system (#1) used 1,116 hours/year of personnel time for Q/A activities and costs [US]\$17,662 per year, or \$4.38 per run reviewed. The second Q/A system (#2) used 569 hours/year of personnel time and costs \$8,361 per year of \$2.15 per run reviewed.

**Conclusions:** A Q/A program for review of paramedic transport reports can be operated successfully and inexpensively by either a computer-based system or by a "manual" system. The computer-based system requires more dedicated personnel time, but can retrieve specific run data more readily and generate statistical analysis reports. Operation and personnel costs are higher in the computerized system.