53.
A Descriptive Analysis of Air Medical Directors in the United States

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Purpose: The practice of helicopter emergency medical services is variable in its mission profile, crew configuration, and transport capabilities. We sought to describe the characteristics of physician air medical directors in the United States.
Methods: We surveyed medical directors concerning their education, training, transport experience, and roles/responsibilities in critical care air transport programs.
Results: Two page surveys were mailed to 281 air medical services. Three programs merged or were dissolved. Data from 122/278 (43.9%) air medical directors were analyzed. One-hundred eleven respondents reported residency training in: Emergency Medicine (EM) 44 (39.6%), Internal Medicine (IM) 18 (16.2%), General Surgery (GS) 18 (16.2%), Family Practice (FP) 12 (10.8%), dual-trained (EM/IM, EM/FP, IM/FP) 11 (9.9%) and others 8 (7.2%). Medical directors' roles/responsibilities consist, most frequently of: drafting protocols 108 (88.5%), QA/CQI activities 104 (85.3%), crew training 98 (80.3%), and administrative negotiations 95 (77.7%).
Conclusions: Medical directors' background and residency training are variable. Duties are multi-faceted and not limited to the diagnostic and technical medical skills that physicians traditionally acquire. Continuing education programs, journals, and professional organizations should provide opportunities to obtain fundamental knowledge of air medical practice for physicians responsible for the diverse components existing in transport programs.

57.
Feasibility of the Global Positioning Satellite System for Rural Aeromedical Transport

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Aeromedical navigation to the scene of an accident using navigational assistance computer mapping software (NACM) can be difficult in rural areas due to the lack of topographic landmarks. In these instances, navigation is made easier using the Global Positioning Satellite (GPS) system to determine latitude and longitude.
Purpose: To determine the reliability and feasibility of portable GPS receivers compared with our current system of NACM (MAP EXPERT®) in the navigation of aeromedical transport flights.
Design: A non-randomized prospective trial comparing flights using either GPS or NACM. **Setting:** Flight program at a Level I trauma center.
Methods: GPS receivers (for transmitting location) were carried by half the helicopters and ground EMS units. The NACM system was used to transmit the location of the accident to the other flights. Data on flight time, distance, and accident location were collected. Pilots and EMS personnel using the portable GPS system completed a questionnaire regarding accuracy, reliability, and ease of use.
Results: This study included 51 flights; GPS (n = 26) and NACM (n = 25). There was no difference in the miles flown per minute in the NACM group (1.69 miles/minute) compared with the GPS group (1.70 miles/minute). Pilots and EMS personnel rated the GPS reliable, accurate, and easy to use for navigation.
Conclusion: The GPS system is an accurate, reliable and easy to use method to navigate aeromedical transport. Future study is warranted to evaluate the utility of GPS in the rural setting where computer mapping is ineffectual due to the lack of topographical landmarks.