

ABSTRACT

It is not possible to prevent all helicopter EMS (HEMS) accidents. However, the HEMS community and HEMS programs may be putting their crews, patients and aircraft at unnecessary risk if there were opportunities that could reduce the number of accidents and save lives.

Since 1998, there has been a dramatic increase in HEMS accidents – nearly 100 accidents, a third of them with fatalities. In 2003 alone, there were 18 accidents. Over an eight-year period, these accidents have killed over 70 of our colleagues, nine patients and several patient family members.

The purpose of this research project is two-fold. First, we will update our earlier safety research with respect to HEMS accident rates and fatal accident rates. The main focus, however will undertake a comprehensive review of HEMS accidents to objectively identify mitigating factors that may prevent future accidents and save lives. Recommendations may include the use of aircraft with more modern designs, improved training, the use of realistic flight simulators, Air Medical Resource Management, night vision goggles, Health and Usage Monitoring Systems (HUMS), EGPWS or TAWS and TCAS, and so forth. The net effect on lives that may be saved, accidents that may be prevented, cost, ease of implementation, and potential drawbacks will be considered in the final recommendations.

Simply stated, the impact of this safety research will be to save lives.