

## POSTER 044. Emergency Medical Care for Spectators Attending National Football League Games

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**Purpose:** This study was designed to obtain information about medical care facilities and resources available for spectators attending football games in the current National Football League (NFL) stadiums.

**Methods:** A prospective, structured survey regarding facilities, transportation, medications and equipment, personnel configuration, compensation, and communications, was mailed to all 28 NFL organizations. Those failing to respond were interviewed by telephone. Data were compiled using Lotus 1-2-3.

**Results:** Data were collected from all 28 NFL organizations. Because two teams use the same stadium, results were calculated for 27 facilities. The number of stadium first-aid rooms range from 1 to 7 (mean 2.4), which vary in size from 120 to 2,000 square feet (mean 434 ft<sup>2</sup>). Each room is equipped with an average of 3.3 stretchers (or tables), with telephones being present in 91% and sinks in 88% of all rooms. To provide contractual EMS coverage, stadiums use most system designs:

EMS Provider Type	n	% (n/27)
Private EMS	19	70
Fire department-based	7	26
Municipal (city/county)	5	19
Hospital	3	11
Volunteer	4	15
(Nine stadiums employ more than one type of provider)		

All stadiums have a minimum of one ambulance dedicated for spectators (range 1 to 7, mean 2.5). Golf carts are used for intra-facility patient transportation in 17 stadiums (range 1 to 6, mean 2.5). The majority of stadiums dispense acetaminophen (n = 25) and aspirin (n = 24). Some dispense antacids (n = 7), and antihistamines (n = 6). In addition to individual EMS providers, ACLS medications and equipment are provided by the stadium (n = 10), hospitals (n = 4), and the local NFL organization (n = 1). Eighteen stadiums staff two to 19 EMT-Bs (mean 8.1), 24 staff one to 20 EMT-Ps (mean 6.8), 20 staff one to six RNs (mean 3.2), and 20 staff one to eight MDs (mean 1.9). Nine stadiums pay a predesignated fee per game. Medical personnel are compensated by hourly (n = 20) or overtime (n = 3) wages. Courtesy seats are provided to physicians and nurses in one stadium, and only to physicians in eight stadiums (range 2 to 6, mean 3.5). All stadiums use two-way radios for communication. Additionally, 20 use fixed telephones, three use cellular telephones, and two incorporate a pager system to dispatch personnel within the stadium.

**Conclusion:** A wide variety of system designs, facilities, and personnel configurations is used to provide emergency medical care for spectators attending NFL games. This information may be useful for assisting those individuals responsible for organizing stadium medical coverage.

## POSTER 047. Air Versus Ground Transport of Penetrating Trauma Victims Requiring Early Operative Intervention

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**Purpose:** To determine if air transport is beneficial for victims of penetrating trauma who go directly to the operating room (OR) from the emergency department (ED) within 60 minutes of arrival.

**Methods:** Trauma registry data for penetrating trauma victims taken directly from the ED to the OR within 60 minutes of arrival were searched over a four-year period for mode of transport, injury severity score (ISS), ED and hospital length of stay (LOS), and mortality. Data were analyzed using Tukey-Kramer and chi-square tests with alpha set at 0.05.

**Results:** One hundred seventy-eight patients were studied with 98 transported by air and 80 by ground. No difference in ISS (17.9 ±11.4 vs 15.2 ±11.6), ED LOS (33.2 ±15.6 vs 35.2 ±15.9 minutes) or mortality (10.2% vs 12.5%) were found in air versus ground. A statistically significant difference was noted in hospital LOS 16.3 ±19.5 days air versus 9.7 ±14.3 days ground. A subgroup of 52 patients (32 air, 20 ground) with an ISS of ≥25 (the ISS identified as the point of rapidly increasing mortality) were compared air versus ground. There was no significant difference in ISS (30.2 vs 31.0), ED LOS (32.4 vs 33.0 minutes), hospital LOS (17.9 vs 16.1 days), or mortality (28.1% vs 45.0%).

**Conclusion:** The air transport of penetrating trauma patients requiring early operative intervention appears to offer no advantages compared to ground transport.