Morbidity and Mortality Associated with Pre-hospital “Lift Assist” Calls

Shephard L, Klingel M, McLeod SL, Dukelow A, Lewell M, Davis M.
Conflict of Interest

• None to declare
Background

- Lift Assist (LA) = EMS call wherein:
  - Assisted up
  - No medical treatment given
  - Not transported to hospital
Background

• Why did they require assistance?
• Paucity of data
  – Cone et al 2013
    • Observational study
    • 4.8% of calls
Objective

• To determine morbidity and mortality within 14 days of LA call
Methods

• All LA calls from single EMS agency
  – Jan – Dec 2013
  – Identified by problem code on Ambulance Call Record (ACR)
    • Lift Assist
    • No complaints
• Linked with local hospital records within 14d
  – ED visit
  – Admission
  – Death
Results
Patient Demographics

- 45% male
- Mean age 74.8 (SD 14.1)
All calls by MLEMS in 2013
N = 42,055

Exclusion Criteria
1. Patients transported to hospital
2. Treatment provided by EMS
3. Patients <18 years

Included LA Calls (n = 808)
“Lift Assist” codes (n = 783)
All non-transport calls where lift-assist provided (n = 25)

ED Visit (n = 169)

Admission (n = 93)

Mortality (n = 9)
808 calls
- 428 individuals
  - 313 single LA
  - 115 multiple LA (2-34 calls)

- Single LA (73.1%)
- Multiple LA (26.9%)
Included LA Calls (n = 808)
“Lift Assist” codes (n = 783)
All non-transport calls where lift-assist provided
(n = 25)

Emergency department visits within 14 days of initial LA
20.9%

Admission to hospital within 14 days of initial LA
11.5%

Mortality within 14 days of initial LA
1.1%

76.5% Admitted to Medicine
Median LOS 7d (IQR = 4, 15.5d)
Infection: 36 (38.5%)
Falls NYD: 32 (34.4%)
Fracture: 7 (7.5%)
Malignancy: 7 (7.5%)
Miscellaneous: 11 (12.1%)
Conclusions

- LA calls are associated with short-term morbidity, mortality
- Considerable use of EMS and hospital resources
Future Directions

• predictors associated with higher risk of morbidity and mortality in LA patients
  – Logistic regression analysis
• Quality Assurance: Culture Shift
Thank You + References

Other Tidbits

• Dispo after LA-Admit - - 22/79 documented to new LTC
• 22 (2.7%) missing >1 vital sign
Tidbits

- LA calls with AbN vitals were:
  - 16 bradycardic
  - 88 tachycardic
  - 14 hypotensive
  - 280 HTN by dfn (SBP >140)
  - 16 HTN++ (SBP >180)
  - 14 Tachypneic (RR >20)
  - 7 Hypoxic (Sp02 <90)
  - 71 meeting temp requirement for SIRS (T < 36 or T>=38)