Elderly are vulnerable to poor outcomes after trauma
- Higher mortality rate than younger patients (7% vs 4%)\(^1\)
- Rates of sarcopenia in trauma ICU patients have been observed as high as 70%\(^2\)
- Sarcopenia has been shown to correlate with poor outcomes\(^2\)
  - Mortality
  - ICU Days
  - Ventilator Days

We hypothesized that sarcopenia is predictive of poor functional outcomes in elderly trauma patients

### Introduction

- Retrospective, observational study of all elderly trauma patients over 2 years
  - Inclusion criteria
    - ≥ 55 years old
    - Admitted to ICU after traumatic injury
    - Had CT of abdomen on admission

- Demographics, injury characteristics, and admission assessments were collected
- Sarcopenia was assessed using the total muscle cross sectional area at L3
  - Normalized for height to obtain muscle index
  - Sex specific cutoffs used to identify sarcopenia

- Outcome measures
  - In-hospital Mortality
  - Functional status at discharge (Glasgow Outcome Scale)
  - Discharge to dependent care

### Methods

- Assessment for sarcopenia is feasible and practical in elderly trauma patients
- Determining sarcopenic status has important potential as a prognostic tool to aid in patient-centered decision making

### Results

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N (%)</th>
<th>95% CI</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarcopenic</td>
<td>23</td>
<td>0.08</td>
<td>1.00 - 2.45</td>
</tr>
<tr>
<td>Sarcopenic</td>
<td>187</td>
<td>0.88</td>
<td>1.04 - 3.77</td>
</tr>
<tr>
<td>Sarcopenic</td>
<td>129</td>
<td>0.91</td>
<td>0.70 - 1.19</td>
</tr>
</tbody>
</table>

Multivariate Regression Analysis of predictors of death, poor functional outcome and discharge to dependent care

### Summary

- Sarcopenia is prevalent in the elderly trauma population
- Sarcopenia is an independent predictor of poor functional outcomes in elderly trauma patients that survive to discharge

### Conclusion

- Assessing for sarcopenia is feasible and practical in elderly trauma patients
- Determining sarcopenic status has important potential as a prognostic tool to aid in patient-centered decision making

### References