

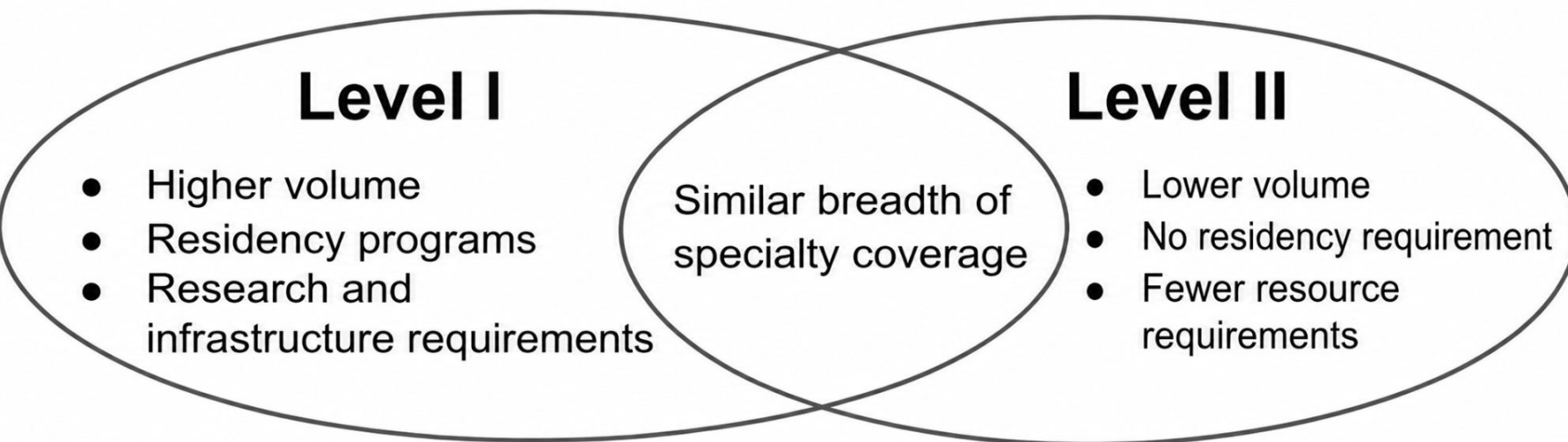


Outcomes of Head and Neck Trauma at Level I vs. Level II Centers

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Introduction

Level I and II trauma centers differ in resources and requirements, but whether these differences lead to **disparities in head and neck trauma outcomes** remains unclear.



Objective:

Compare outcomes in head and neck trauma between Level I and Level II centers.

Methods

- National Trauma Data Bank, 2007-2015
- Compared Level I vs Level II trauma centers using **multivariable regression with propensity score matching**

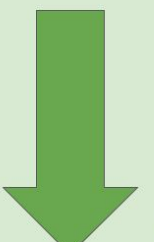
Results

351,365 patients included:

- Level I = 228,741
- Level II = 122,614

Level I patients were **younger, had higher ISS, and more penetrating injuries**

Propensity Matched Cohort

Mortality	Complications
Matched Cohort: Level I n = 122,614 Level II n = 122,614	Matched Cohort: Level I n = 107,794 Level II n = 107,794
 0.89 (95% CI 0.85 - 0.93)	 1.27 (95% CI 1.23 - 1.30)
Lower odds of mortality at Level I centers	Higher odds of complications at Level I centers
Non-home discharge	Hospital length of stay
Matched Cohort: Level I n = 122,614 Level II n = 122,614	Matched Cohort: Level I n = 115,846 Level II n = 115,846
 1.16 (95% CI 1.12 - 1.18)	 0.45 (95% CI 0.39 - 0.52)
Higher odds of non-home discharge at Level I centers	Higher length of stay at Level I centers
Each outcome-specific matched cohorts achieved strong covariate balance (All standardized mean differences <0.10)	

Conclusions

- Level I care associated with decreased mortality in head and neck trauma.
 - **May provide survival advantage** to complex or unstable patients due to increased resource availability.
- Level II care associated with **fewer complications** and shorter LOS.
 - Potentially due to streamlined treatment courses and decreased intervention rates.
- These findings support **further evaluation** of regional triage strategies in head and neck trauma.