

# Taking severity seriously

looking beyond the maximum  
abbreviated injury score

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# Background

## Maximum Abbreviated Injury Score (MAIS)

The most accessible injury  
severity measure

## How about:



Hospital stay



Psychological  
burden



Quality of life



Medical costs



Perceived severity

# Objective

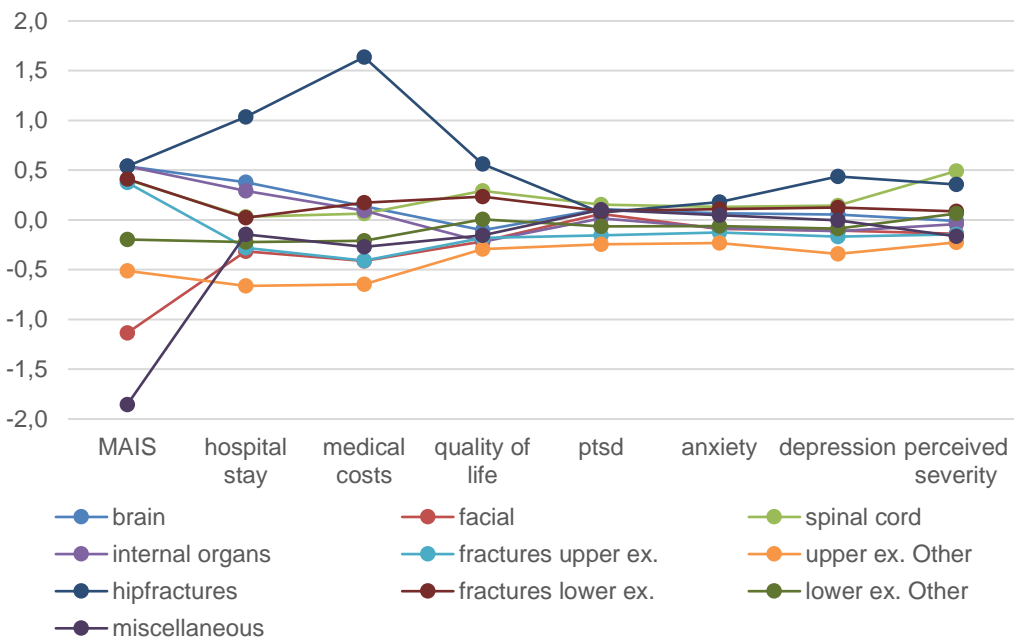
We explore the relation between **MAIS** and **other injury severity measures** for **ten different injury types** to determine if MAIS is indicative for the overall burden of trauma.

# Results

## 1. Logistic regression

Severity measure	Exp(B)	95% CI for EXP(B)	
Hospital stay	2,52	2,03	3,14
Quality of life (EQ-5D)	0,35	0,18	0,69
Cognition (EQ-6D)	0,75	0,57	0,99
PTSD (IES-R)	0,99	0,98	1,00
Anxiety (HADS)	0,99	0,95	1,04
Depression (HADS)	1,01	0,96	1,06
Perceived severity (VAS)	1,31	0,97	1,77
Sex	0,72	0,59	0,88
Age	1,01	1,01	1,01

## 2. Z-scores normalisation



MAIS	Perceived severity
1 hipfractures	spinal cord
2 brain	hipfractures
3 internal organs	fractures lower ex.
4 fractures lower ex.	lower ex. other
5 spinal cord	brain
6 fractures upper ex.	internal organs
7 lower ex. other	facial
8 upper ex. other	fractures upper ex.
9 facial	miscellaneous
10 miscellaneous	upper ex. other

## Conclusion

MAIS is a **discriminative measure** for injury severity. However, MAIS is **not always a proper indicator** for severity when this involves the patient’s psychological burden or perceived health status. So, **caution is needed** when using and interpreting MAIS as an indicator for injury severity in research or policymaking.