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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

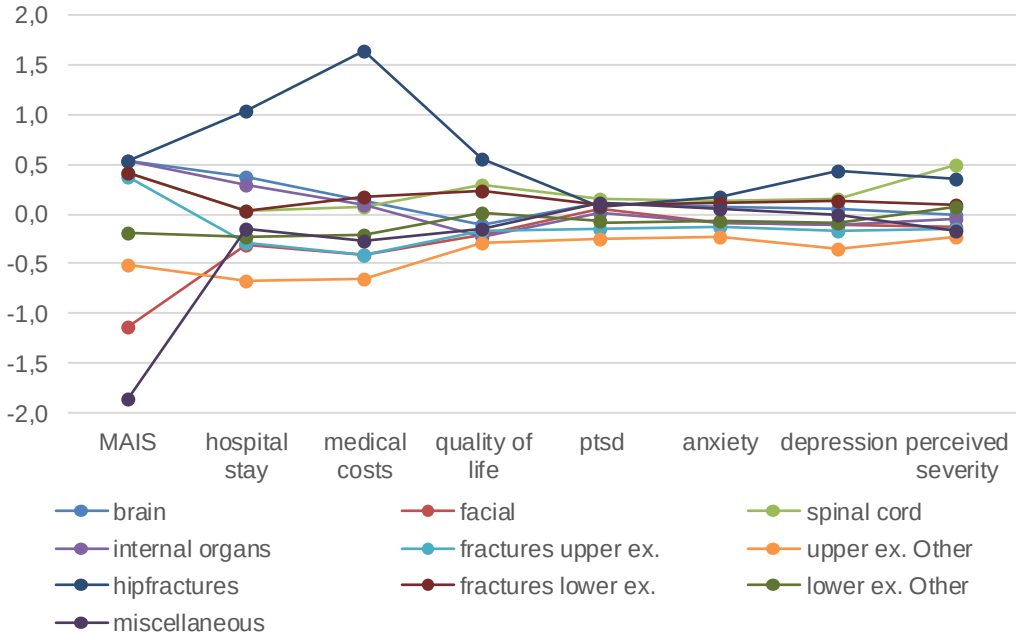
We explore the relation between **MAIS** and **other injury severity measures** for **ten different injury types** to determine if MAIS is indicative for the overall burden of trauma.

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.