Prehospital Triage of Emergency Patients by EMS
A comparison of CTAS scores by EMS and triage nurses

The Canadian Triage Acuity Scale (CTAS) is recognized across Canada as the standard for triage of patients.

Evidence suggests medical professionals other than triage nurses can be taught to accurately use CTAS.

A Prospective, Observational Study

**PURPOSE**
To assess the accuracy of prehospital EMS assigned CTAS scores compared to triage nurse assigned CTAS scores.

**STUDY POPULATION**
Focused on patients in Winnipeg Regional Health Authority and the Winnipeg Fire and Paramedic Service.


14,370 patients > 17yo with CTAS scores from both nurses and EMS staff included.

**ANALYSIS**
EMS assigned CTAS scores (CTASa) was compared to:

- CTAS: initial nurse triage scores w/ computerized clinical support
- CTAS: final nurse triage scores w/ override of computerized support

Assessment of the inter-rater reliability measured using weighted kappa:
- Excellent: Good (k = 0.8)
- Moderate (0.4 < k < 0.6)
- Fair - Poor (0.0 < k)

**RESULTS**

Moderate agreement between CTASa and CTAS (k=0.437, p<0.001, 95% CI)

CTASa and CTAS were within one grade point in 84.3% of cases.

Moderate agreement between CTASa and CTAS (k=0.422, p<0.001, 95% CI)

CTASa and CTAS were within one grade point in 86.9% of cases.

**CONCLUSION**
This system wide implementation study demonstrates moderate inter-rater reliability between CTAS scores assigned by trained EMS and triage nurses.

References: