Comparison of the SACCO Triage Method Versus START Triage Using a Virtual Reality Scenario in Advance Care Paramedic Students
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Introduction
Many triage methods have been proposed with few being validated in an evidence based manner. The SACCO triage method (STM) has been reported as superior to the START method. Few studies have compared the two methods in triage order and time to triage in a simulated scenario.

Methods
A prospective randomized controlled study was conducted using twenty-six students in their final year of advance care paramedic program at Holland College, Prince Edward Island. The volunteers were randomized into either STM triage or START triage group. The study scenario was based on a train accident database using ten victims. A 30 minute lecture on their respective methods was given prior to the subject participating in the simulation. The two outcome measures, time to triage and triage order, were recorded.

Results
The average time to triage all patients were 709” (11’49”) SACCO and 609” (10’9”) START, corresponding to a mean difference of 100” (95% CI: -11s, 211s) (P=0.07) demonstrating no statistical difference. Statistical analysis by a nonparametric permutation test showed a significant (P=0.008) difference between victim triage order in the two groups. The statistical significance was driven by one victim which disappeared when this victim was removed from the ordering. The difference between the two groups was not significantly linked to any of the victim physiologic characteristics.

Conclusion
This study demonstrated that there is no difference in time to triage or triage order by advance care paramedic students using the SACCO or START triage methods in a simulated mass casualty incident.