

**TABLE 1** Study characteristics.

Reference	Triage system	Type of MCI	Development of reference standard	Presimulation triage course	Was a flow chart of the triage system handed out?	Experience of triage performers	Cases played by actors, n	Cases played by mannequins, n	Intended distribution of cases into triage categories, % (n)	Possible conflicts of interest	Funding sources
Silvestri et al, 2017 [19]	START <sup>®</sup>	Chlorine gas explosion and a live shooter at a university	Published consensus-based reference standard achieved in a Delphi process	-	-	EMT-P	47	4: only dead	Red: 33 (17) Yellow: 12 (6) Green: 47 (24) Black: 8 (4)	0 declared	-
Ingrassia et al, 2015 [20]	START	Motor vehicle accident	Compared to triage performed by a computer	2-hr. training on day 2: between 1st 2nd session	-	56 senior medical students	10	0	-	Authors are owners of VR software used in study	-
Schenker et al, 2006 [21]	START	Train collision with blast injury and chemical release	Predefined triage category	No	-	40 EMS personnel	99	31	Red: 23 (30) Yellow: 12 (16) Green: 40 (51) Black: 24 (33)	0 declared	-
Ellebrecht & Latasch, 2012 [22]	START	Airplane crash at airport	Unclear	1-hr. training in start during "the weeks up to the exercise"	Yes: PDA	EMT-P	520	0	Red: 19 (100) Yellow: 32 (170) Green: 49 (260) Black: 0	The Company which developed the PDA was involved in design of the study	-
Bolduc et al, 2018 [23]	START	Train derailment and chemical spill	Predefined triage category	30-min. training same day as exercise	Unclear	2 registered nurses	30	0	Red: 30 (9) Yellow: 20 (6) Green: 47 (14) Black: 3 (1)	0 declared	-
Price et al, 2018 [24]	START	-	Unclear	-	-	35 emergency and special care nursing master's degree students	20	0	Red: 40 (8) Yellow: 25 (5) Green: 10 (2) Black: 25 (5)	0 declared	Spanish government Seneca foundation
Fernandez-Pacheco et al, 2018 [25]	START	-	Compared to 3 emergency physicians' triage	4-hr. training prior to the exercise	-	68 nursing students	Unclear	Unclear	Red: 25 (10) Yellow: 42.5 (17) Green: 25 (10) Black: 7.5 (3)	0 declared	-
Jain et al, 2018 [26]	START	Motor vehicle accident	Based on medical records from trauma patients	15-min. training prior to the trial	Yes	20 PCP 20 advanced care PCP	10	0	Red: 30 (3) Yellow: 40 (4) Green: 20 (2) Black: 10 (1)	0 declared	Holland college paramedicine programme
Lee et al, 2016 [27]	SALT	4-car motor vehicle collision	Predefined triage category	30-min. training immediately before exercise	No	38 PCP 29 FS	8	0	Immediate: 25 (2) Urgent/delayed: 12.5 (1) Minimal: 37.5 (3) Expectant: 12.5 (1) Dead: 12.5 (1)	0 declared	-
Cone et al, 2009 [28]	SALT	Incident at airport	Predefined triage category	90-min. training session	Yes, though not used by participants	Experienced EMT-P	52	0	Immediate: 31 (16) Urgent/delayed: 23 (12) Minimal: 27 (14) Expectant: 0 Dead: 19 (10)	Cone participated in the development of SALT	Uppsala University
Lerner et al, 2010 [29]	SALT	Bomb blast at a community concert	Predefined triage category	30-min. training the day before the exercise	-	73 mixed healthcare personnel	19	10	Immediate: 26.7 (58) Delayed: 24.4 (53) Minimal: 35 (76) Expectant: 6.5 (14) Dead: 7.4 (16)	0 declared	-
Cicero et al, 2015 [30]	SMART	Airplane crash at airport	Predefined triage category	-	-	CG 2 EMT-P	CG 27 or 29	0	CG Red: 31 (9) Yellow: 34 (10) Green: 17 (5) Black: 17 (5)	0 declared	-
						IG With Google Glass: 2 EMT-P with 10 yrs extra experience	IG 20 or 21		IG Red: 38 (8) Yellow: 42 (9) Green: 5 (1) Black: 14 (3)		

To be continued >

**TABLE 1** (continued) Study characteristics.

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Navin et al, 2010 [17]	START	Building collapse	Predefined triage category	20-min. immediately before exercise	-	EMT-I EMT-P	20	79	<b>START</b> Red: 22 (22) Yellow: 25 (25) Green: 48 (47) Black: 5%(5)	Sacco invented STM and is among the authors	-
Offterdinger et al, 2014 [31]	MSTART	Scenario 1: crash landing of an airplane Scenario 2: airport shuttle bus collision Scenario 3: explosion of the airfield Scenario 4: patients injured by firearms	Compared to expected outcomes based on symptoms	4-hr. course the day before the exercise	Yes	12 EMT-P 12 emergency physicians	10	0	-	Connection to authors of MSTART [18, 33]	-
Rehn et al, 2010 [32]	TAS	Bus crash	Unclear	2-day course in TAS: MCI management system Exercise immediately after course	Yes	A mix of healthcare professionals, firefighters, police officers and others	20	0	Red: 25 Yellow: 25 Green: 25 Black: 25	Authors developed the examined system	Norwegian air ambulance foundation

CG = control group; EMS = emergency medical service; EMT-I = emergency medical technician – intermediate; EMT-P = paramedics; FS = fire science students; IG = intervention group; MCI = mass casualty incident; MSTART = modified START; PCP = paramedical students; PDA = personal digital assistants; RPM = respiration, pulse and motor function; SALT = Sort, Assess, Lifesaving interventions, Treatment/Transport; START = Simple Triage and Rapid Treatment; STM = Sacco Triage Method; TAS = Tverretattlig Akuttmedisinsk Samarbeid; VR = virtual reality.  
 a) Noted "field triage".