		Main STUDY PERIOD								
		Enrolment	Allocation	Post-allocation				Close-out		
PHASE*	Run-In phase	*A*	*B*	*C*	*D*			*E*	*F*
TIMEPOINT**	$-t_2$	$-t_1$	0	t_1	t_2	t_3	t_4	t_5	t_x
ENROLMENT:									
Eligibility screen	X	X							
Informed consent	X			◆━━━━◆					
Allocation	X		X						
INTERVENTIONS:									
Conventional EMS physician treatment	X			X					
Tele-EMS physician treatment	X			X					
ASSESSMENTS:									
a) Screening for patient related exclusion criteria: • *Apnea* • *Acute respiratory failure* • *Cardio-circulatory arrest* • *ST-elevation myocardial infarction (STEMI)* • *Unconsciousness* • *Persistent seizure* • *Life- threatening rhythm disorder* • *Major trauma* • *Complex psychiatric disorders* • *Age < 18 years* *b) Screening for emergency case related exclusion criteria:* • *Major vehicle accident* • *(Traffic) accident with children* • *Fall from a height (> 3m)* • *Gunshot-, stab-, or blow injuries in the head, neck and torso area* • *Fires with reference to*	X	X							

personal injury • Explosion-, thermic or chemical accidents with reference to personal severe injury • High-voltage electrical accident • Water connected accidents (drowning-, diving accident, fall through ice) • Accidents involving hazardous goods • Hostage-taking, rampage or other crimes with potential danger for human life (preventive deployment, police consultation) • Immediate threatening suicide • Immediate forthcoming delivery or preceding delivery								
Primary outcome variables • Immediate allergic reaction • Intervention-related and immediate treatment-requiring blood pressure drop on scene • Immediate intervention-related apnea or respiratory insufficiency on scene	X			X				
• Intervention-related circulatory arrest within 24h of EMS treatment	X			X	X			
Secondary outcome variables • Quality of medical history survey • Treatment quality • Quality of documentation • Duration of the physician engagement-time. • Fulfillment of predefined quality indicators for "Tracer" diagnoses (trauma, stroke, acute coronary syndrome, pain	X			X				

control, bronchial asthma, chronic obstructive pulmonary disease, seizure, sepsis, hypoglycemia) *• Correct pre-hospital diagnosis* *• Other adverse events* *• Premature termination of the telemedical or conventional EMS operation, as unnecessary* *• Required conversion from the primary dispatched tele-EMS physician to a conventional EMS physician* *• Assessment if a conventional EMS physician operation could have been handled by a tele-EMS physician*									
Other Outcome Measures *• Time point of the first contact with a physician, time span between the emergency call and hospital arrival* *• Seven-step National Advisory Committee for Aeronautics severity score* *• Proportion of conventional emergency cases, which were passed to a tele-EMS physician* *• Necessity of an EMS physician at all* *• Technical performance* *• Frequency of tele-EMS contacting by a conventional EMS physician* *• Level of medical education/ experience of the involved physicians in each group*	X			X					
• Survey of the patients satisfaction with the	X			◆——◆					

	$-t_2$	$-t_1$	0	t_1	t_2	t_3	t_4	t_5	t_x
used EMS system									
• *Death within 24 hours and until day 30 of hospitalization respectively until discharge from hospital*	X				◆———————◆				
• *Discharge destination from hospital* • *Intensive Care Unit (ICU) and hospital length of stay*	X					X			
• *Death within 30 and 90 days after EMS treatment*	X						X	X	
• *Retrospective analysis of the same t_1- t_3 data for the excluded (non-randomized) conventional EMS physician cases (collected from the conventional EMS physician protocols and the hospital database)*									X
Survey of the paramedics, the EMS physicians and the emergency room personnel in regard to their satisfaction with the tele-EMS system (once/ twice during the study period)									X

* Specific phases: Run-In phase (1.5-2 months prior study start), A = Enrolment, B = Allocation, C = During EMS intervention, D = Early follow up, E = Late follow up, F = Additional analysis

**Specific timepoints: $-t_2$ = Run-In phase (1.5-2 months prior study start), $-t_1$ = Enrolment during the emergency call in the dispatching center, 0 = Allocation via automatic randomization by the dispatching software, t_1 = EMS operation on scene, t_2 = 24 hours after EMS intervention, t_3 = Discharge from hospital, t_4 = Follow-up 30 days after EMS intervention, t_5 = Follow up 90 days after EMS intervention, t_x = Parallel to the main study.