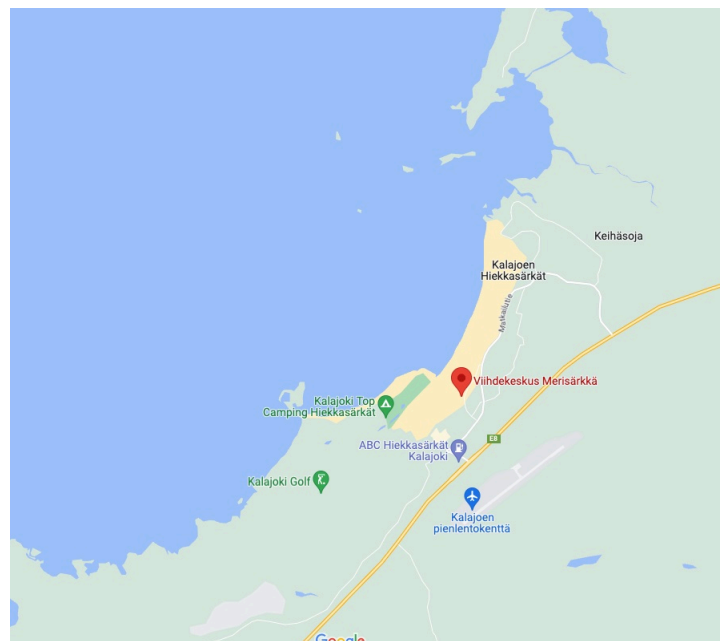




## Incident headline: **Training exercise**

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Planner, organizer. Student of the Master`s degree programme in emergency Care Management.



Merisärkkä2016 - night club fire exercise.

The night club fire exercise took Place in Finland at Kalajoki Hiekkasärkät. The exercise was planned and organised by six students of the Master`s degree programme in Emergency Care Management and it was carried out in co-operation with local emergency care service, fire service, police and other authorities.

Kalajoki Hiekkasärkät is popular tourist attraction on the coast of Kalajoki especially at summer time. Kalajoki is quite small town with about 12500 inhabitants and the land area is 2391,30km<sup>2</sup>. The town is known as travelling, farming and metal industry. the area of Kalajoki Hiekkasärkät is located about ten kilometres away from Kalajoki town to the south.

Night club Merisärkkä is one of many restaurants anf nighth clubs of the area of Hiekkasärkät. At the best season there can be even 3000 people having a party at the Merisärkkä night club.

We decided to plan and organize that kind of exercise because there has been many disastrous night club accidents around the world in recent years. As we also know there

## Incident characteristics

Date of incident 09-06-2016

Time of start 10:00

**What was the mechanism/external factor that caused the incident?  
Please tick for all options that apply**

Fire  
Mass gathering

No

**Please specify the extreme weather that caused the incident \***

Rural/countryside area  
Mass gathering

Road

**Other types of extreme weather**

**Please specify other mechanism/external factor that caused the incident:**

The number of patients in relation to the number of ambulances

Road

**Is this incident coupled to another incident?**

No damage

**Please specify coupled incident**

**What was the location of the incident scene? Please tick for all options that apply. \***

Fire

**Please specify other type of location of incident scene or leave blank if unknown:**

Fire

**What was the EMS' mode of access to treat patients at incident scene?  
Please tick for all options that apply. \***

**Please describe any delays of importance**

**Please specify other modes of access**

**What was the EMS' mode of evacuating patients from the incident scene? Please tick for all options that apply. \***

**Please specify other if any**

**Please describe any delays of importance**

**Was there damage to infrastructure that affected EMS response? Please tick for all options that apply. \***

**Specify other infrastructure damage**

**Please describe the damage**

**How many sites required separate EMS infrastructure (such as on-scene leadership and casualty clearing stations) in the response phase? \***

**Which hazards existed for rescuers on scene? Please tick for all options that apply. \***

**Please specify other hazards**

**If possible, please specify what the hazard was and how it affected the rescuers on-scene**

**Which hazards existed for patients on scene? Please tick for all options that apply. \***

**Please describe the hazards**

## EMS response data

**Which (if any) of the following actions were implemented by the medical response \***

Assume the role of in-scene medical commander

Yes

**Were these actions implemented by the first medical responder to arrive on scene? \***

Advanced paramedic

High visibility vest (different colours depend on skill level), helmets, protective glasses

**Who implemented them and why?**

**Do you have a dedicated on-scene medical commander in your EMS system? \***

On-scene medical commander

**What kind of personnel assumed the role of on-scene medical commander in this incident?**

**Give details of which safety actions were initiated (eg. High visibility vests or personal protective equipment for responders)**

**Give details of which tasks were delegated (eg. Ambulance parking officer, Primary triage officer)**

**If you have the times for these actions and the order they occurred please add them to the previously downloaded 'timeline of events' document. If there were reasons for tasks not performed, please elaborate**

**By whom were additional medical staff who responded to the major incident summoned? \***

**Please specify other means**

**Please give details of which additional staff (eg. bronze, silver and gold officers, tactical advisors etc) were summoned, at what time they were summoned and at what time they arrived at their designated posts**

## Medical command structure

**Was there a pre-hospital major incident response plan in place? \***

Yes

**Link to response plan in Norwegian. (Copy the link and paste it into your browser)**

<https://bit.ly/3S025h2>

**How did your actual response differ to the plan and what was the consequence of that?**

## Medical communication

**Was satisfactory communication achieved between those who needed to communicate during the incident? \***

Yes

**Who managed communication at the incident? \***

On-scene medical commander

**If relevant, please describe any communication challenges**

**When available, please provide a timeline for central communication issues**

**Which mode/s of communication were used during the major incident response? Please tick for all options that apply. \***

Radio, VHS

**Please specify mode of communication to the public. If social media was used please describe this \***

**Please specify other means of communication \***

Face to face communication

**Describe any failure to communication and how it affected the response**

Network of tetra radios overloaded for a while.

**Which of the communication systems are in use on a daily basis? \***

Radio, Tetra



## EMS response data

**Please state number of lay persons with no field care education present at the incident scene \*** 0

**Please state number of non-EMS personnel with basic life support (BLS) competency present at the incident scene \*** 7

**Please state number of EMS professionals who were not physicians, but with BLS competency present at the incident scene \*** 0

**Please state number of EMS professionals who were not physicians, but with Advanced Life Support (ALS) competency present at the incident scene \*** 0

**Please state number of on-scene physicians with ALS competency present at the incident scene \*** 0

**Please state number of other type of personnel/persons present at the incident scene \*** 0

**Please specify other type of personnel/persons \***

## Transport

<b>Number of EMS vehicles available at the incident scene *</b>	12
<b>Number of EMS helicopters available at the incident scene *</b>	1
<b>Number of EMS boats available at the incident scene *</b>	0
<b>Number of other type of EMS units available at the incident scene *</b>	1
<b>Please specify other type of EMS units *</b>	On-scene medical commanders vehicle
<b>Number of civilian vehicles available at the incident scene *</b>	1
<b>Number of civilian helicopters available at the incident scene *</b>	0
<b>Number of civilian boats available at the incident scene *</b>	0
<b>Number of other type of civilian units available at the incident scene *</b>	0
<b>Please specify other type of civilian units *</b>	

## Transport

<b>Number of other emergency services vehicles available at the incident scene *</b>	7
<b>Number of other emergency services helicopters available at the incident scene *</b>	0
<b>Number of other emergency services boats available at the incident scene *</b>	0
<b>Number of other units available at incident scene *</b>	2
<b>Please specify other type of units *</b>	Police units

**What kind of equipment was available on-scene enabling EMS to do their job?  
Please tick for all options that apply \***

**If any equipment was missing please describe**

*Note: If the number is 1-5 please check unknown. Due to patient confidentiality restrictions no data on less than 6 patients can be reported*

**Number of patients with minor injuries \*** 58

**Please provide the data source from which these numbers originate**

"green patients" patients who can walk

**What was the total number of patients seeking care at a hospital \***

100 or more

## Patient surge data

<b>Number of receiving hospitals *</b>	4
<b>Hospital 1</b>	
<b>Distance from incident scene where pre-hospital medical response was initiated to hospital I by air line in kilometers *</b>	101-200
<b>Type of hospital I *</b>	Major hospital
<b>Please specify other type of hospital *</b>	
<b>Date of first patient transported to hospital *</b>	06-09-2016
<b>Time (HH:MM) of first patient transported to hospital</b>	
<b>Date of last patient transported to hospital *</b>	06-09-2016
<b>Time (HH:MM) of last patient transported to hospital</b>	
<b>If you have more details on the patient surge please provide them in the free-text field below</b>	

## Hospital 2

**Distance from incident scene where pre-hospital medical response was initiated to hospital I by air line in kilometers \***

51-100

**Type of hospital I \***

Major hospital

**Please specify other type of hospital \***

**Date of first patient transported to hospital \***

06-09-2016

**Time (HH:MM) of first patient transported to hospital**

**Date of last patient transported to hospital \***

06-09-2016

**Time (HH:MM) of last patient transported to hospital**

**If you have more details on the patient surge please provide them in the free-text field below**

### Hospital 3

<b>Distance from incident scene where pre-hospital medical response was initiated to hospital I by air line in kilometers *</b>	31-50
<b>Type of hospital I *</b>	Local hospital
<b>Please specify other type of hospital *</b>	
<b>Date of first patient transported to hospital *</b>	06-09-2016
<b>Time (HH:MM) of first patient transported to hospital</b>	
<b>Date of last patient transported to hospital *</b>	06-09-2016
<b>Time (HH:MM) of last patient transported to hospital</b>	
<b>If you have more details on the patient surge please provide them in the free-text field below</b>	

**Hospital 4**

<b>Distance from incident scene where pre-hospital medical response was initiated to hospital I by air line in kilometers *</b>	51-100
<b>Type of hospital I *</b>	Local hospital
<b>Please specify other type of hospital *</b>	
<b>Date of first patient transported to hospital *</b>	06-09-2016
<b>Time (HH:MM) of first patient transported to hospital</b>	
<b>Date of last patient transported to hospital *</b>	06-09-2016
<b>Time (HH:MM) of last patient transported to hospital</b>	

**If you have more details on the patient surge please provide them in the free-text field below**



## Hospital 5

**Distance from incident scene where pre-hospital medical response was initiated to hospital I by air line in kilometers \***

**Type of hospital V \***

**Please specify other type of hospital \***

**Date of first patient transported to hospital \***

**Time (HH:MM) of first patient transported to hospital**

**Date of last patient transported to hospital \***

**Time (HH:MM) of last patient transported to hospital**

**If you have more details on the patient surge please provide them in the free-text field below**

## Patient surge data (continued)

*Note: If the number is 1-5 please check unknown. Due to patient confidentiality restrictions no data on less than 6 patients can be reported*

**Number of patients with minor injuries \***

58

**Please provide the data source from which these numbers originate**

"green patients" patients who can walk

**What was the total number of patients seeking care at a hospital \***

100 or more

## Patient characteristics

*Note: If the number is 1-5 please check unknown. Due to patient confidentiality restrictions no data on less than 6 patients can be reported*

**What was the estimated number of people at risk from the major incident? (e.g. number of passengers on a train / ship) \***

1000 or more

**Please explain how the above number of population at risk was reached \***

There can be even 3000 people in the Night Club Merisärkkä at the best season. The exercise took part 107 "patients".

## Patient characteristics

*Note: If the number is 1-5 please check unknown. Due to patient confidentiality restrictions no data on less than 6 patients can be reported*

<b>Number of males injured *</b>	Unknown
<b>Number of females injured *</b>	Unknown
<b>Number of neonates injured *</b>	0
<b>Number of infants (1 month - 2 years) injured *</b>	0
<b>Number of young children (2-6 years) injured *</b>	0
<b>Number of children (6-12 years) injured *</b>	0
<b>Number of adolescent (12-18 years) injured *</b>	0
<b>Number of unidentified/missing victims *</b>	0

## Patient characteristics (continued)

*Note: If the number is 1-5 please check unknown. Due to patient confidentiality restrictions no data on less than 6 patients can be reported*

**What was the number of dead on-scene/dead before any medical care was provided? \*** Unknown

**What was the number of dead before arrival at hospital? \*** Unknown

**What was the number of deaths of those admitted to the hospital within 30 days of the event? \*** Unknown

**Is data collection of thirty day mortality of those admitted to hospital considered complete? \*** Yes

**Was a pre-hospital triage system used? \***

**Who performed the pre-hospital on-scene triage? \*** EMS peronnel

**Which triage system was used? \*** colour system

**Please specify other person/personnel who performed the pre-hospital on-scene triage \***

## Triage

*Note: If the number is 1-5 please check unknown. Due to patient confidentiality restrictions no data on less than 6 patients can be reported*

<b>Number of patients in triage category red = immediate upon first assessment on scene *</b>	16
<b>Number of patients in triage category yellow = urgent upon first assessment on scene *</b>	29
<b>Number of patients in triage green = minor/delayed upon first assessment on scene *</b>	58
<b>Number of patients in triage category black = deceased upon first assessment on scene *</b>	Unknown
<b>Number of patients who were triaged in another category than the previous upon first assessment on scene *</b>	0
<b>Please describe the other triage categories *</b>	
<b>Was there any over- or undertriage? *</b>	Yes
<b>If possible please depict the % of over and under triage and how the calculations were undertaken</b>	

## Types of injury

*Note: If the number is 1-5 please check unknown. Due to patient confidentiality restrictions no data on less than 6 patients can be reported*

<b>Number of patients with blunt trauma *</b>	11
<b>Number of patients with penetrating trauma *</b>	0
<b>Number of patients with burns *</b>	14
<b>Number of patients drowned *</b>	0
<b>Number of patients with asphyxiation *</b>	0
<b>Number of patients with hypothermia *</b>	0
<b>Number of patients with intoxication/poisoning *</b>	0
<b>Number of patients with infectious disease *</b>	0
<b>Number of patients with acute psychiatric symptoms requiring medical attention *</b>	0
<b>Number of patients with nuclear or radiological injury *</b>	0
<b>Number of patients with biological injury *</b>	0
<b>Number of patients with chemical injury *</b>	0
<b>Number of patients by other type of injury *</b>	
<b>Please specify other types of injury sustained *</b>	
<b>Number of patients admitted to critical care area *</b>	45

## Key lessons

**During the pre-hospital emergency medical response to this major incident, were there any particular problems that may be improved in future major incidents? \***

**In what area/s did the problems occur? \***

Naure of the incident itself  
The EMS respons

**Please provide extra data of the problems using the tabs below.**

### **Pre-incident**

**What was the problem encountered? \***

Lot`s of the patient and long distances to the incident scene

**How did responders attempt to address the problem? \***

At the beginning of the accident the lack of paramedics (and firemen) in relation to the amount of the patients.

**How would you recommend addressing / avoiding a similar problem at a future major incident? \***

Triage started immediately but different triage colours where mixed each other. There should have been different areas for the red patients, yellow patients etc.

### **EMS background**

**What was the problem encountered? \***

Different triage colours immediately into their own groups. Enough paramedics for the red patients.

**How did responders attempt to address the problem? \***

Other

**How would you recommend addressing / avoiding a similar problem at a future major incident? \***



## **Incident chars**

**What was the problem encountered? \***

**How did responders attempt to address the problem? \***

**How would you recommend addressing / avoiding a similar problem at a future major incident? \***

## **EMS response**

**What was the problem encountered? \***

**How did responders attempt to address the problem? \***

**How would you recommend addressing / avoiding a similar problem at a future major incident? \***

## **Patient chars**

**What was the problem encountered? \***

**How did responders attempt to address the problem? \***

**How would you recommend addressing / avoiding a similar problem at a future major incident? \***

**Please specify other problems**

**During the pre-hospital emergency medical response to this major incident, were there any particular successes that may enhance the response to future major incidents? \***

**In what area/s did the successes occur? \***

**Please provide extra data of the successes using the tabs below.**

### **Pre-incident**

**What element of the response went particularly well? \***

**What recommendations would you make for the response to future major incident responses? \***

### **EMS background**

**What element of the response went particularly well? \***

**What recommendations would you make for the response to future major incident responses? \***

### **Incident chars**

**What element of the response went particularly well? \***

**What recommendations would you make for the response to future major incident responses? \***

## Key lessons

### EMS response

**What element of the response went particularly well? \***

**What recommendations would you make for the response to future major incident responses? \***

Face to face communication between on-scene medical commander, rescue commander and police commander

### Patient chargs

**What element of the response went particularly well? \***

**What recommendations would you make for the response to future major incident responses? \***

### Other

**Please specify other successes that were encountered and may enhance the response to future major incidents \***

## EMS background

<p><b>Was an EMS coordinating centre (the centre responsible for dispatching and coordinating EMS units to the scene) available in the affected country/ies at the time of the incident? *</b></p>	<p>Yes</p>
<p><b>Is there one common dialling number for all Emergency Services (fire, police, EMS) *</b></p>	<p>Yes</p>
<p><b>Can a major incident be declared directly by the person receiving an alert at the EMS coordinating centre? *</b></p>	<p>No</p>
<p><b>Do you have a separate number for each service, does no number exist? *</b></p>	<p>Basic Life Support by non-EMS professional Basis Life Support by EMS professional, non-physician</p>
<p><b>What is the background of staff in the every-day/normal staffing of EMS services? *</b></p>	<p>Advanced Life Support by EMS professional, non-physician Advanced Life Support On-scene by Physician</p> <p>Fire brigade Police Coast guard</p>
<p><b>Please specify the background of other staff in the every-day/normal staffing of EMS services or leave blank if unknown.</b></p>	
<p><b>What other resources are <u>routinely</u> available to assist the EMS service in a <u>normal setting</u>? Please tick for all options that apply. *</b></p>	<p>Fire brigade Police Coast guard</p>
<p><b>Please specify which voluntary organizations are available to assist the EMS service in a <u>normal setting</u> *</b></p>	<p>Finlands Red Cross, Voluntary Rescue Service</p>
<p><b>Please specify which voluntary organizations are available to assist the EMS service in a <u>normal setting</u> *</b></p>	<p>Yes</p>
<p><b>Please specify which voluntary organizations are available to assist the EMS service in a <u>normal setting</u> *</b></p>	<p>Yes</p>

**Please specify other resources that are routinely available or leave blank if unknown.** 2

**What other resources can be mobilized in a major incident? Please tick for all options that apply. \*** No

**Please specify which voluntary organizations are available \*** Yes

**Please specify other resources that can be mobilized or leave blank if unknown**

**Does the country where the major incident took place have a trauma network? \***

**Are there any regional hospital/s with trauma specialty that exists within the EMS catchment system that was affected by the major incident? \***

**Please state the number of regional hospital/s with trauma specialty within the EMS catchment system that was affected by the major incident \***

**Are there any regional hospital/s without trauma specialty that exists within the EMS catchment system that was affected by the major incident? \***

**Please state the number of regional hospitals without trauma specialty within the EMS catchment system that was affected by the major incident \***

**Are there any local hospital/s without trauma specialty that exists within the EMS catchment system that was affected by the major incident? \***

## EMS background (continued)

<b>Please state the number of local hospitals without trauma specialty within the EMS catchment system that was affected by the major incident *</b>	2
<b>Are there any other type of hospital/s that exists within the EMS catchment system that was affected by the major incident? *</b>	Unknown
<b>Please state the number of other type of hospitals within the EMS catchment system that was affected by the major incident</b>	
<b>Please specify what other type of hospital/s exist within the EMS catchment system that was affected by the major incident. *</b>	
<b>Is there a pre-hospital triage system in use on a <u>daily basis</u> on a <u>national level</u>? *</b>	Yes
<b>Please specify which pre-hospital on-scene triage system/s are in use on a <u>daily basis</u> *</b>	Colour system (same as on major incident)
<b>Is a pre-hospital triage system in use on a <u>daily basis</u> on <u>regional levels</u>? *</b>	Yes
<b>Please specify which pre-hospital on-scene triage system/s are in use <u>daily</u> on regional levels *</b>	
<b>Is a pre-hospital triage system in use for <u>major incidents</u> on a <u>national level</u>? *</b>	
<b>Please specify which pre-hospital triage systems are in use for <u>major incidents</u> *</b>	
<b>Is a pre-hospital triage system in use for <u>major incidents</u> on <u>regional levels</u></b>	Yes

## EMS background (continued)

<b>Please specify which pre-hospital on-scene triage system/s for <u>major incidents</u> are in use on regional levels: *</b>	Colour system
<b>Does the pre-hospital on-scene triage system for major incidents include direct tagging/labelling of patients? *</b>	Yes
<b>If possible, please describe type of tagging</b>	Serially numbered color coded boards hang from the patient neck
<b>For those employees within the pre-hospital EMS system who are intended to work on-scene: is major incident training mandatory? *</b>	Yes
<b>If possible, please describe type and frequency of training</b>	About once a year
<b>Does the region have a major incident plan? *</b>	Yes
<b>How often is the major incident plan tested? *</b>	
<b>Is there an in-hospital major incident response plan for each hospital receiving patients? *</b>	Yes
<b>Is there a regional major incident response plan incorporating all emergency services within the area that the the major incident occurred? *</b>	Yes