



Emergency medical services in sport tournaments and meetings

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Disclosures



The presenter has no actual or potential conflict of interest in relation to this presentation

Competitions in Moscow



In Moscow, every year there are more than 3,000 competitions

- ❖ World Cup of athletics (2013),
- ❖ IAAF World Athletics Championships (2013),
- ❖ Rugby World Cup Sevens (2013),
- ❖ The 5th European Men's and Women's Artistic Gymnastic Individual Championship (2013),
- ❖ FIBA 3x3 World Cup (2014),
- ❖ ICF Canoe Sprint World Championship (2014),
- ❖ European Championship 10m (2014),
- ❖ World Short Track Speed Skating Championship (2015),
- ❖ World Cup of Fencing (2015),
- ❖ World Cup of ice hockey (2016),
- ❖ Dragon Boat ICF World Championship 2016.



Sochi 2014 Olympic Winter Games

RussiaWorld Cup 2018



World Cup 2018 Host Cities



Moscow



Luzhniki



Spartak

Saint-Petersburg



Kaliningrad



Kazan



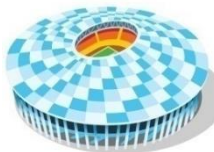
Sochi



Rostov-on-Don



Nizhniy Novgorod



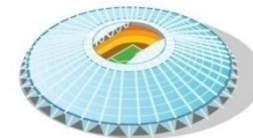
Volgograd



Saransk



Samara



Ekaterinburg



The World Cup 2018 was held at 12 stadiums in 11 Russian cities. For the first time, the World Cup took place in two continents of the world: Europe and Asia.

Facilities Used in Moscow for the 2018 World Cup:



2 Stadiums



1 Fan Fest



1 International Broadcast Centre



8 Hotels: (FIFA Venue Hotels • Team Hotels • FIFA Referees Hotels)



1 FIFA Headquarters



3 Team Base Camps



8 Training sites

Different Models of Medical Services



Moscow



Centre of Sport Medicine
and Rehabilitation



Ambulance Medical
Center



Emergency Medical Center



Other Hospitals

Saint-Petersburg



Ambulance Medical
Center

The models of medical services for World Cup can be completely different.

The main medical organization must possess extensive experience of mass participation competitions across multiple venues of international sporting events.

Human Resources



Engaging qualified experienced medical staff.

Attract those with an enthusiasm and desire to participate in the World Cup

Our team - 100 medical staff



In smaller locations, you can use one team of medical staff.

Organize backup teams for all categories of medical staff especially for field medical teams.

Training Courses



It is very important to understand all kinds of skills required at the stadium, using real conditions

It is essential to understand all available skills of the medical staff on duty at the stadium, using real conditions

Training according to the local mass casualty/disaster plan of Moscow



Joint training with security services that have experience of mass-gathering events

The FIFA World Cup 2018 : «Spartak» Stadium



A total area of 53,758 sq.m. and a territory of 28.2 hectares.

- Capacity – 45,000 people
- 5 matches held at this location.

The FIFA World Cup 2018 : «Luzhniki» Stadium



- A total area of 221,000 sq.m. and a territory of 159 hectares.
- Capacity – 81,000 people.
- Host of the opening and closing ceremonies
- 7 matches held at this location.

Mobile Medical teams at 'Luzhniki' Stadium



Identify the most effective location for the mobile teams. The main goal is to ensure a maximum time of 3 minutes before the start of resuscitation is achievable.

To correctly develop and practice the intra-stage algorithm for medical evacuation

Medical Services at 'Luzhniki' Stadium



- 240 medical staff for each match
- 25 mobile medical teams
- 34 ambulances
- 19 medical centers

Medical Services for the «Last mile»



The composition of the teams (male, female), equipment and localization should be determined taking into account the location, tasks and working conditions

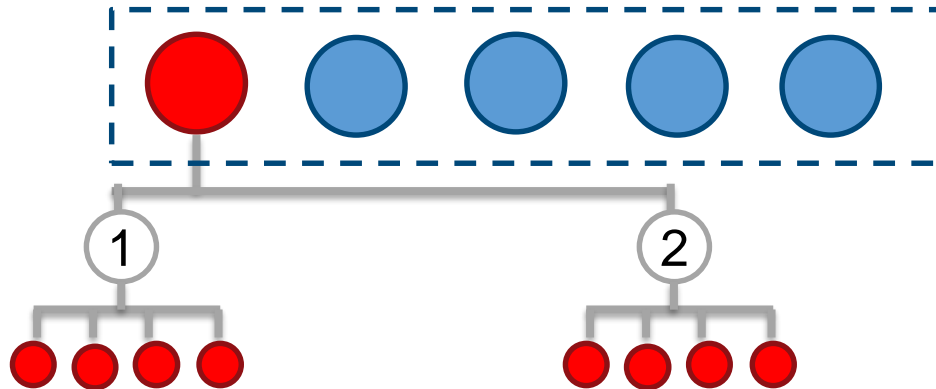
The Organization of Services during the Match Day



Center of the Stadium

VMO

2 deputy



The mobile
medical teams

Ambulances



Select individual coordinators for mobile teams and ambulances.
Consider your deputy and the backup line of command.

Fan Fest



Capacity- 40000 people

Russia- Egypt (19-06-18)



Test Matches



Test matches at «Luzhniki» Stadium
(2018)



Test matches at «Spartak» Stadium
(2017)



It is essential to understand the potential problems by the way of test matches (evacuation, communications, attracting additional forces)

FIFA World Cup 2018 Preparation



The main goal of this planning for all public events is the prevention of sudden cardiac arrest and emergency planning.



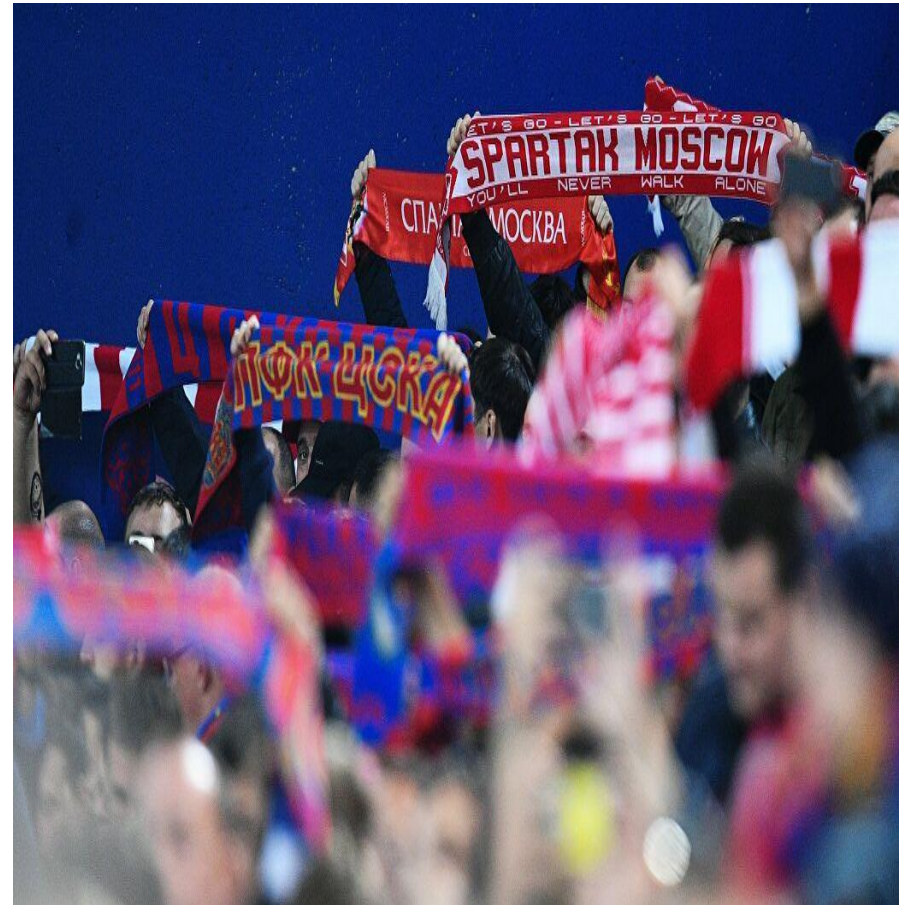
Features of Operational Activities at the World Cup FIFA



Tragedy at 'Luzhniki' Stadium (October 1982) - 66 people died.



'Spartak' Stadium (November 1915) 2 spectators died during one match



The most important thing in medical services is the prevention of sudden cardiac arrest and emergency planning



- Recommendations for the minimum level of care at sports arenas/events
- with >1000 spectators/competitors

Arena size	AEDs no	Physicians	Nurses	MTs	Ambulances
<10 000	1–2	1	1	2	0–1
10–50 000	4	2	1–5	2–10	1–2
>50 000	8	2–4	>5	>10	>2

These figures are to be seen as recommendations. As discussed in the consensus document, a specific arena may need a different number of AEDs and personnel, to ensure the chain-of survival in every case of SCA in the arena, within <5 min.

Consensus document regarding cardiovascular safety at sports arenas: position stand from the European Association of Cardiovascular Prevention and Rehabilitation (EACPR), section of Sports Cardiology.

Borjesson M1, Serratos L, Carre F, et al, Eur Heart J. 2011

The FIFA World Cup 2018

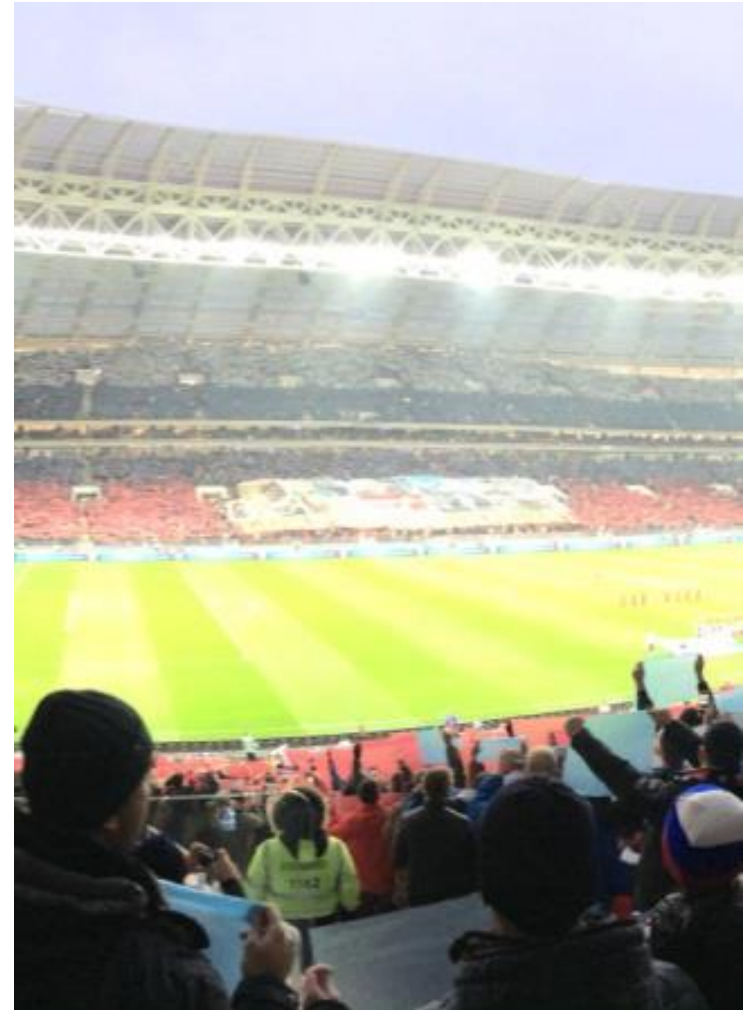


The obligatory presence of trained medical personnel, unified communications and management both at the stadium and at non-stadium facilities provide a high degree of preparedness for situations with mass casualties.

AEDs in Sports



- Neurologically intact survival rates were 93% in centers with on-site AED compared to 9% in centers without ($P < 0.001$).
- The presence of an on-site AED, the presence of shockable rhythm, first assistance by a lay bystander and the time to defibrillation were all related to neurologically intact survival, but the presence of an on-site AED was the only independent predictor in the multivariate analysis.
- The use of an on-site AED resulted in a reduced time to administer the first shock when compared with an emergency medical system-delivered AED (3.3 ± 1.4 min vs 7.3 ± 3.2 min; $P = 0.001$).
- Conclusions:
- The presence of on-site AEDs is clearly associated with neurologically intact survival after an exercise-related SCA.



The FIFA World Cup 2018 : *'Luzhniki' Stadium*



- Requests of players
- Evacuation of a player from the field
- Requests and evacuations of spectators.



COVID-19



Return to sports after COVID-19 infection





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