

Schweizerische Eidgenossenschaft
 Confédération suisse
 Confederazione Svizzera
 Confederaziun svizra


Swiss Armed Forces
 Armed Forces Medical Organisation



Coordinated Medical Services in support of the Swiss population





Major General Andreas Stettbacher MD,
Surgeon General of the Swiss Armed Forces
Delegate of the Federal Council of Ministers on CMS



Outline

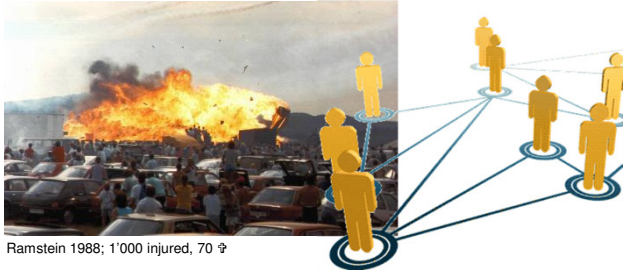
- ❖ What are the Coordinated Medical Services
- ❖ Swiss Armed Forces Medical Corps Assets
- ❖ Military Medical Training Status report
- ❖ Challenges ahead

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What are the Coordinated Medical Services CMS?

- CMS is the permanent **national network** for coordination and steering of all national medical support assets in extraordinary situations of national dimensions, major disasters and war

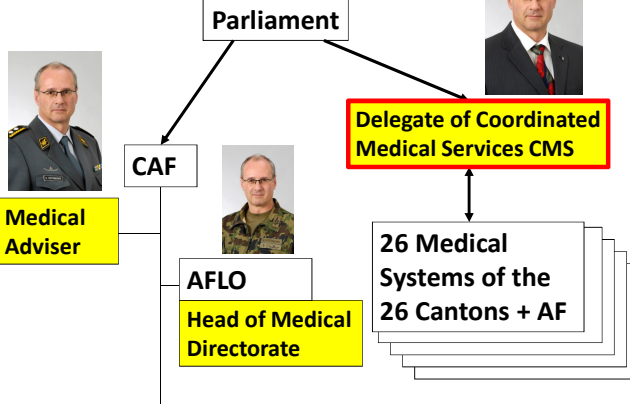


Ramstein 1988; 1'000 injured, 70 †

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3 hats of the Surgeon General



Parliament
Medical Adviser (CAF)
Head of Medical Directorate (AFLO)
Delegate of Coordinated Medical Services CMS
26 Medical Systems of the 26 Cantons + AF

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Challenge: Ramifications for Coordinated Medical Services

- Federal responsibilities:
 - Earthquakes
 - CBRN Terrorism / Accidents
 - Pandemics
- On request of Cantons:
 - Support of Civilian Medical Systems
f.e. in case of blackout or mass casualty incidents



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When is it time for CMS?

- Permanently in preparation for disasters
- Whenever it is a federal responsibility

Management of major mass casualty settings



Fukushima 2011; 5'900 injured,
>15'700 ☒

China 2008; 380'000 injured,
>80'000 ☒

G8 summit Geneva 2003;
>30 injured, 1 ☒

Beslan 2004; 704 injured,
>900 ☒

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Services and products of the CMS

- Near realtime **overview of all military and civilian medical assets** in Switzerland and their specific capacities
- Realtime **information system on patients, lost persons and objects** in disasters
- Nationwide alarm and medical manager contact **network and database**
- **Planning, supporting and conducting** nation wide medical management in disasters and war
- Expert **advice, instruction and training** on medical disaster preparedness and management issues
- Management of **CMS infrastructures and equipment**

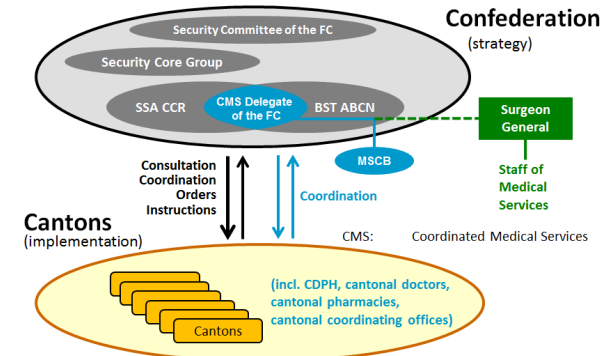


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The political setting of CMS



FC: Federal Council
SSA CCR: Swiss Security Alliance
Consultation and
Coordination Regime

BST ABCN: Federal NBCN Crisis Management Board
MSCB: Medical Services Coordinating Body
CDPH: Swiss Conference of the Cantonal
Directors of Public Health

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New Baseline – a political decision

GDK Schweizerische Konferenz der kantonalen Gesundheitsdirektorinnen und -direktoren
 CDS Conférence suisse des directrices et directeurs cantonaux de la santé
 CDS Conferenza svizzera delle direttrici e dei direttori cantonali della sanità

- Vote of the Conference of Ministers of Health of the 26 cantons in November 2008 in unison:
 - 800 emergency beds as strategic reserve managed by the Armed Forces
- Reconfirmed January 2013
- Based on CMS concept of 1976 and ordinance on CMS of 2004

Reality check: deficit of >80% bed reserves in cases of national disasters*
 *U.S. Norm for disaster preparedness: 500 empty emergency beds /mio inh

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Goal of the Coordinated Medical Services

Strategic reserve of 800 empty beds

Best possible treatment in disaster relief – everybody gets the bed he needs

>500 injured, 21 ♀

24'522 beds 90-110% occupied

Terrorist IED Attack – Military setting

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Military medical support for the Coordinated Medical Services

Mutual Support through Cooperation

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Medical Corps assets of the Swiss Armed Forces

Medical Corps assets of the Swiss Armed Forces

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Infrastructures for basic military medical care

- 6 Regional Medical Centers
- 19 Barracks Medical Wards
- 68 full-time MD + Nursing professionals
- 1'600 Active Reserve MD + MCS

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Battalion Medical Support

- Role 1 Medical Support in each battaillon (active reserve, 12 pers + MD / bat, 120 bat)
- 4 Medics (militia, non professional) in each company with combat tasks
 - Advanced Life Support (PHTLS® first responder)
 - Transport with field ambulances (149) or armoured ambulances (49) – all civilian rescue vehicle standard

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Battalion aid stations (48)

- Tented and containerized Role 1+ Medical Support (active reserve, 24 pers + 2 MD)
- Emergency Medical Care in field conditions
 - Advanced Trauma Life Support ATLS®
 - Advanced Cardiac Life Support ACLS®
- Capacity: 10 (trauma) resuscitations and 50 temporary emergency patients / 24 h

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Hospital Bataillons + Medical Logistics Bataillon






- 4x Hospital Bataillons (active reserve)
 - 200 beds capacity each
 - Low level care (nursing care, emergency department, minor surgery incl DCS, high care with ventilator beds)
 - Run underground Military Hospitals (2)
 - Run combined civ-mil underground Hospitals (7)
 - Subsidiary modular medical support to other civilian Hospitals
- 2x Hospital Bataillons (reserve)
 - only personnel
- 1x Medical Logistics Bataillon (active reserve / reserve)
 - Supporting production sites of Armed Forces Pharmacy

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Modules of Hospital Battalion

	Basic nursing care (non-professional medical corps soldiers with professional active-reserve medical personnel)
	<ul style="list-style-type: none"> - Emergency department - Damage control surgery - High Care (monitored ventilator beds)
	Basic diagnostics (lab, x-ray)
	Sterilization and Desinfection units
	<ul style="list-style-type: none"> - Technical support - Patient transport

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Underground reserve hospital beds

Every Hospital Battalion can serve 200 patient beds




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Improved nursing station



1918: Spanish flu



2013: Spit Bat 5


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Mobile containerized operating theatre module (singular asset)

- Laminar airflow operating theatre
- Civilian standard
- Highly mobile
- Completely autonomous





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New pharmaceutical production site of the Armed Forces Pharmacy



- Large scale production, distribution, import and export of pharmaceuticals under regulatory supervision of Swissmedic
- Supply and emergency production (6 lines, all galenic specs) of essential drugs for the armed forces and the swiss population



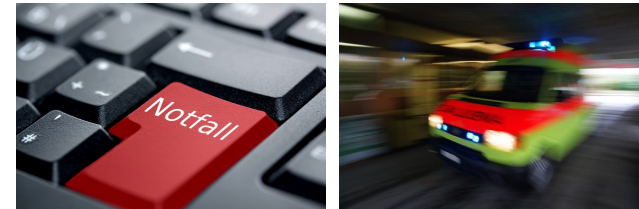
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Challenge: High readiness of Armed Forces for Support to Civilian Population (from 2016)

- **Pharmaceutical production and Medical logistics (immediate)**
- Special Operations Medics / Docs (hours)
- 1 Role 1+ (6/12 hours)
- **5 Medical companies (each 6 Role 1+) (24 hours)**
- **4 Hospital battalions (24 hours)**



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Soldier Training (all troops)



- All soldiers: Basic Life Support (BLS) and Advanced Life Support (ALS)



- Medics: PHTLS® First responder; Transport with field ambulances or armoured ambulances (civilian rescue vehicle standard)



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Soldier Training (Medical Service Corps)



18 weeks training course

- Hospital Soldiers / Specialists
Basic nursing diploma (acute care)

Croix-Rouge suisse
Schweizerisches Rotes Kreuz
Croce Rosso Svizzera

- Field Medical Soldiers / Specialists
Basic nursing diploma (acute care)



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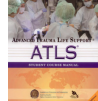
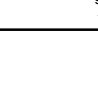
Military Training for Medical, Dental and Pharmaceutical Students

Difficult coordination with 6 Medical Schools and full blown Bologna educational system

Military education	Period
<div style="display: flex; justify-content: space-between; font-size: 8px;"> 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Recruit - School Med prep school </div>	<ul style="list-style-type: none"> before medical school or between year 1 and 2
<div style="display: flex; justify-content: space-between; font-size: 8px;"> 1 2 3 4 5 6 7 8 </div> <div style="text-align: center; margin-top: 5px;"> Med Of Course </div>	<ul style="list-style-type: none"> during the 5th year or between year 5 and 6 of medical school
<div style="display: flex; justify-content: space-between; font-size: 8px;"> 1 2 3 4 5 6 7 8 9 10 11 12 </div> <div style="text-align: center; margin-top: 5px;"> Practical work as medical doctor </div>	<ul style="list-style-type: none"> within two years after medical school

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Challenge: How to motivate draftee medical students

- Key asset** for the Medical Services of the Armed Forces, always drawn between very demanding clinical work and obligation to serve
- Incentive for study beginners:** intensive training in emergency medicine (PHTLS®) and leadership before studies start; top motivator!
- Service free period during studies**
- Practical year** with 8 weeks medical officers course on ACLS®, ATLS® and on call duties: **added value** for future clinical work – **advantage against other students!**
- Result: 80 – 100 Military Medical Doctors / y**

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Current Challenges in healthcare issues:

- **Budget Cuts** : - on the military and civilian side
 - military : - 1960-ies, 2.5 % of GDP
 - 2009 reduced to 0.8 of GDP
- **Medical personnel shortfalls in military and civilian institutions**
 - shortfall of 30'000 nurses in 2020
- **Migration of medical personnel**
 - about 50 % foreign doctors at the universities
- **Feminization of medical profession**
 - current ratio at the university female vs male 70/30 %

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Current Challenges in healthcare issues:

- **Missing / failing preparedness for civilian and military medical support in CBRN disasters**



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Coordinated Medical Services – a useful tool



Russian Army Knife



Questions?



**Security and Freedom.
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