

Experience and Consequences on the Deployments of the Medical Services of the German Army in Foreign Countries – Surgical Aspects

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ABSTRACT

Several deployments supported by the German Army medical services lead to new experiences concerning personal, training, preparation, support, equipment and standardisation.

The consequences are not only important for the surgical work but also for anaesthesiology, intensive care, internal medicine and neurology and psychiatry.

The challenge for our medical services is the fast and complete facilitation of all purposes necessary for the adequate and modern care for our soldiers, the soldiers of the UN-nations and nevertheless for local people in the sense of humanitarian help.

INTRODUCTION

The military surgeon is always in a crucial situation : in case of war he has to provide the quickest and most competent care for the casualty. What we learnt from the past is the phenomena that all well known experience from the surgical care has to be learnt again because young surgeons are not well prepared for their task in the peaceful times at home.

What about the training of military surgeons nowadays? Only few of them got a fellowship for trauma care after their general training : most of them do oncology, transplantation or merely general surgery. In the USA only a few civil centers in a region are allowed to treat the major trauma cases. Normally military hospitals are not involved in daily care of major trauma cases. So it is no wonder, that in case of deployment the military surgeon is not prepared in the surgical management and operation procedures of war wounded.

Another disadvantage seems to be the high specialisation in the US within a small field of surgery. So the expression “general“ surgeon seems to be wrong concerning the fact that for example he does not care for the extremities! This is hard to understand for the military surgeons from Europe because 80 to 85 per cent of the casualty which survive in a war environment are only wounded at the extremities.

So, what would be a rationale for the training of military surgery ? The authors wish to emerge a discussion about the question how and where military surgeons have to be trained in a practical way to fulfill the requirement of special expertise in a hostile environment.

THE SITUATION

In all civilized countries specialization increases. That means that a nearly complete overview about surgery is not longer possible. Surgical science has reached a level that makes a skillful handling of the different specialties obviously not longer possible.

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On the other hand there is sometimes a need for an utmost complete overview to understand and treat trauma within its complexity. So the question arises whether there have to exist surgeons who are allowed and competent to treat the different facets of trauma. It is e.g. not understandable why in the US a trauma surgeon should not be able to perform an external fixation procedure before a necessary reconstruction of vessels. External fixation is such a quick and simple procedure that in our opinion every trauma surgeon has to know and practice it. As long as legal restrictions block the development of broad surgical training no improvement of care can be possible.

Concerning the military environment not always war is the situation military surgeons find them in. War is the most extreme circumstance under which surgical procedures have to be performed: Risk of own wounding, operations under time pressure with limited resources, psychological stress by sorting and so on do not always occur. In most cases, especially in the modern peace keeping missions, time, facilities, logistics and the number of casualty are not very different than at home. What differs is the type and the amount of special war wounds and the limitation of facilities, personnel and known instruments. This special situation is in Germany called Einsatz, what means that the military surgeon has to provide a surgical work that in its result has to be comparable with that at home. This special requirement needs a surgeon who is trained in all the main fields of surgery ! He is the responsible doctor for the applied procedures and for the outcome. It is well known, that most of the wounds which could be survived normally are the wounds and fractures on the extremities. They amount in most of the statistics up to 80 - 85 per cent of the casualty. The necessary surgical procedures can be trained in a relatively short time and need only little practice. On the other hand, the wounds of the cavities are more life-threatening and need more knowledge and manually expertise. So every military surgeon must be trained in craniotomy, thoracotomy and laparotomy to stop fatal bleedings and repair organs and intestines.

What means military surgical expertise?

Obviously there is a difference between civil and military surgery: Some are the opinion that military surgery is worse than civil surgery and the military surgeon is therefore worse than a civil surgeon.

When we look to the imaginable different environments where a military surgeon works something will become more clear:

Comparing the environments in normal surgery, deployment surgery and war surgery, there are different emerging problems But all basic principles in every environment are the same: to do the best under the given situation : but to do the best means to be the best! How military surgeons can achieve the excellency to be the best? Nobody can provide the best care for casualty during deployment or war if he is not well prepared in the normal situation. That means in other words: if a military surgeon is not trained in trauma care, he is not prepared for an adequate therapy in case of deployment or war. The military surgeon must be as good as his civil colleges in trauma care plus a lot of special training for the purpose of working under special conditions.

That means not that he has to be a generalist! Generalist or specialist? What do these expressions mean?

In general one may think, that the Generalist knows everything in all the fields and the Specialist knows everything in one field.

But when you know everything in one field you are a specialist by a curious way of automatism.

To be a specialist is nowadays honorable and successful, because the specialist can not be attacked in any way: He is the last judge in a small field - and he is only, and only there responsible. But this is also the problem of this fact. Our doing becomes more and more complex. Surgery is divided into many pieces and it seems not longer to be manageable.

Because the whole thing is more than the sum of its parts.

The competence of surgeons in different specialties grows more and more, but the orientation to care for the whole patient decreases at the same time.

It is questionable whether a specialist is the answer to the challenge of a military surgeon. Nevertheless the generalist is also not the answer to this dilemma. The problem would only shift from a doctor who knows only little from whole field to a doctor who knows all on a small field.

Surgical skills that are divided into skills of the specialist and the skills of the generalist cannot solve the problem.

In our opinion, there are not too few specialists of generalists - no - what lacks is the surgical expert for the genuine purpose of military surgery. This expert is a kind of surgeon who always runs on a borderline of multiple surgical specialties, able to keep in mind and hands the knowledge to act in a interdisciplinary -or better - in a trans-disciplinary manner.

The wounded victim as a whole cannot be divided in several parts to deal with - a responsible military surgeon must be an expert in overlooking the whole problem and must have the ability to act on the life-threatening injuries first.

What are the problems concerning the training of such an expert?

Not the separation between specialist and generalist, not the frustrate discussion who is the better surgeon of both - no, it is the inability to deal in a reasonable manner with this issue. The question is not:

How to train the super-all-expert? It is the question of judgement what kind of surgical skills combined with knowledge is feasible for this expert in fact. That means, how can we integrate our theoretical knowledge with a concept of orientation.

We are responsible for the future military surgeons experts: we must commit : what they have to know, where they have to go, and how they have to be trained. But this is a hard job to do, for the teachers and the young surgeons as well.

How to gain expertise in military surgery? A proposal.

Military surgeons and responsible politicians must be aware that this special expertise will take a long time of training, learning , exercise and permanent work in trauma. In Europe it is a matter of fact that military surgeons work all on trauma. They compete with their civil colleges in treatment and science of major trauma cases. In Germany a special schedule for training to the endpoint of military surgical expertise will be the following in the future. The authors believe that only a surgeon who run through this training for at least 8 years can be responsible for what he is required.

This training program must include a training of the basic surgical skills within 24 month. During this time he is a non commissioned surgeon (NCS). 6 month training in an ICU, 6 month on a surgical ward, and 12 month in one of the specialties. During the basic training the surgeon must be familiar with the ultrasound of trauma. He has to fix up to 600 sonographies. Radiology has also to be learnt, especially the diagnosis in angiography, CT and MRI. After 2 Years he is specialised as for 4 years as a general surgeon: that means 1 year visceral-, 1 year thoracic, 1 year vascular and 1 year otho-/trauma rotation.

After the curriculum of training he will get the qualification of a limited commissioned surgeon (LCS).

Now the special training to become a full commissioned surgeon (FCS) can start. It lasts another 2 to 3 years in which the LCS has to train for at least 24 months on in his specialiy (visceral-, thoracic, vascular, ortho-/trauma) surgery. He must be after this time familiar with all kinds of specialised procedures. After this training the military surgeon is in our opinion competent and fully responsible for deployment or war. Otherwise all the lessons which had been learnt by our predecessors must be learnt by us again.

Sir K.R.Popper is known for his statement: Those, who did not learn from the past, are condemned to repeat it.