VOICES FROM WITHIN

STORIES FROM THE INTERNATIONAL RED CROSS AND RED CRESCENT MOVEMENT COVERING A DECADE OF WAR SURGERY IN THE MIDDLE EAST AND NORTH AFRICA

REPORT

International Federation
of Red Cross and Red Crescent Societies

ICRC

Cover photo

An ER specialist Johannes Schad and a surgical ward nurse Jarmo Villanen changing the bandages of Yasser (11), who got injured in a chemical weapon attack in East Mosul. Yasser's father Nathem (behind in black shirt) was outside when he heard a loud bang and smelled a weird smell. He rushed back to his home when he understood that something has hit his neighborhood. He was horrified to learn that the target was his home, where his wife and five children had been inside. All of them were luckily alive, but seriously injured by the chemical. In hospital Nathem stays all the time close to his kids, helping them together with the doctors and nurses. Slowly they are recovering. But there is no home where to return, because the chemical has made the house unlivable. (10.03.2017, Iraq, West Erbil Emergency Hospital, photographer Saara Mansikkamäki / Finnish Red Cross)

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The photos and videos in this report were collected from a variety of sources, including from the ICRC's delegations and archives, and from offices of National Societies operating in the region. The stories were provided by ICRC delegations, by National Societies and by Ruba Afani, who conducted interviews for this report. We would like to thank her for researching this report, contacting the people in the Movement, collecting visuals and information, and producing the narrative. The report was coordinated by the Movement Regional Affairs cell in Beirut, edited in Geneva, then laid out and translated into Arabic by the ICRC's regional communication centre in Cairo, which also developed the website.

Many of the humanitarian professionals featured in the report work for the Movement; we are grateful to them for their work to save and improve lives both during and after armed conflicts and other situations of violence. We would also like to thank those who shared their stories about wartime or post-war surgery. These stories illustrate the dedication of war surgeons and the importance of this life-saving profession.

Finally, we would like to thank all the staff and volunteers in the Middle East and North Africa who work within their communities to strengthen people's resilience and alleviate the suffering of victims of armed conflict, other situations of violence and natural disasters. They attend not only to people's immediate physical needs but also to their mental, social and economic needs, helping to improve their lives and give them back their dignity. And no matter how difficult it may become, they, and we, remain committed to upholding the humanitarian principles of the Movement.

Sayed Hashem

General Director of the IFRC in the Middle East and North Africa

Fabrizzio Carboni

ICRC Director of Operations for the Near and Middle East

PREFACE

Throughout its history, the International Red Cross and Red Crescent Movement has been closely associated with life-saving assistance, surgical operations, physical rehabilitation, reconstructive surgery, psychosocial support, safer behaviour in environments contaminated by weapons and other efforts to assist the wounded. In times of conflict, this is commonly referred to "war surgery".

It all began in 1859 when Henry Dunant, a Swiss businessman, witnessed the aftermath of the Battle of Solferino and the thousands of wounded and dead soldiers left untreated and uncollected on the battlefield. He organized volunteers from neighbouring villages to provide food, water and medical treatment to the wounded, no matter which side they had fought on. This experience led Dunant to advocate for neutral and impartial care for wounded soldiers, and in 1863, he and his peers in Geneva founded the International Committee for Relief to the Wounded. This Committee became the International Committee of the Red Cross (ICRC), with the mission of protecting and providing humanitarian assistance to people affected by armed conflict and other situations of violence.

Inspired by this example, a few European countries set up their own Red Cross societies, run by volunteers, to care for the victims of natural disasters. Thus the International Red Cross and Red Crescent Movement was born. War surgery in armed conflict, and the equivalent services in natural disasters, have remained a pillar of the Movement's identity. Today, war surgery takes a holistic approach. It is seen as a process that aims to medically treat wounded people and provide them with rehabilitation to minimize the resulting functional disability and effect on their mental well-being, allowing them, insofar as possible, to resume their lives and regain their dignity.

Humanitarian organizations often provide war surgery services in the aftermath of emergencies, such as armed conflict and natural disasters. These emergencies can quickly degrade a country's health system: hospitals may be damaged or destroyed, medical supplies may be scarce, hospital administration may be paralyzed, and few hospital staff may be available. In such cases, humanitarian organizations step in to support hospitals and the overall health system, seeking to save lives, reduce disabilities and restore the dignity of the wounded. The Movement insists that those in need should have access to medical care, and that that care should be neutral. As such, the Movement does not discriminate between wounded combatants, and aims to provide the highest quality care to all those in need. Humanitarian law specifically protects medical transportation and civilian and military medical services, in particular hospitals. By law, they must be protected and allowed to carry out their work at all times and must not be attacked.

The humanitarian medical professionals that perform war surgery do so away from the comfort of their secure and adequately resourced home bases. Instead they find themselves in primitive and often chaotic settings where surgical operations are performed with very basic medical equipment and in close proximity to front lines or other dangers.

This report tells the stories of medical professionals who have gone on these assignments, and serves to commemorate those who have been injured, abducted or killed while conducting humanitarian activities. This report also tells the stories of survivors and how the Movement has improved their lives, highlighting the hope and resilience they have shown in spite of what they have faced.

ABBREVIATIONS

ICRC	*International Committee of the Red Cross*
IFRC	*International Federation of Red Cross and Red Crescent Societies*
IHL	*international humanitarian law*
Movement	*International Red Cross and Red Crescent Movement*
National Societies	*National Red Cross and Red Crescent Societies*
WTTC	*Weapon Traumatology Training Centre*

INTRODUCTION

Over the past ten years, several armed conflicts have plagued the Middle East and North Africa. These conflicts and other situations of violence have created unprecedented levels of human suffering[1] and brought entire health-care systems to the brink of collapse, just when people are in even greater need of medical care.

In Gaza, for instance, fierce fighting started on 27 December 2008 and lasted for three weeks. The number of casualties rose following a series of air strikes by the Israel Defence Forces. In all, the conflict claimed more than 1,000 lives and resulted in more than 5,000 injuries, according to the Palestinian ministry of health. Gaza's stocks of supplies and medicines were already severely depleted due to the difficulty of bringing these items into the Strip, but the influx of wounded people put a tremendous additional strain on Gaza's already overburdened hospitals.

On 8 July 2014, another seven-week conflict broke out between Gaza and Israel, resulted in more than 2,000 fatalities and 10,000 injuries, according to the Palestinian ministry of health. On 30 March 2018, a six-week campaign of protests was launched in Gaza near the Israeli border. There was violence in multiple locations along the border fence with Israel, resulting in more than 13,000 Palestinians being wounded – more than 3,600 of them by live ammunition, some multiple times – with an estimated total of nearly 5,400 limb injuries, according to the ministry of health in Gaza.

Yemen's civil war began in 2014, and the conflict continues to take a heavy toll on civilians, making it the world's worst humanitarian crisis. The United Nations estimates that the civilian casualties are actually far higher than the number of confirmed injuries and deaths. The war in Yemen completely decimated the health care system: more than half of people have little access to basic health care, less than 20% of hospitals are able to function and health-care personnel are unable to cope.

In October 2016, a coalition of Iraqi and international forces launched military operations to re-take the city of Mosul from the Islamic State group. The Battle of Mosul was one of the largest urban sieges since World War II and lasted from October 2016 to July 2017. The number of deaths were estimated at between 9,000 and 11,000 according to an investigation by the Associated Press. The ICRC estimated that, even before the battle, thousands had been killed and over 800,000 people had been displaced.

The war in Syria, which started in 2011, has caused large-scale death and destruction, making it the largest and most complex humanitarian crisis in the world. According to the World Bank, more than 400,000 people have been killed in Syria since the start of the war. The UN reports that more than 5.6 million people have fled the country, and another 6.2 million have been displaced within Syria. More than half of health facilities have been damaged or destroyed, and less than half the health-care personnel remain, the rest having been attacked or left the country. This has greatly reduced access to primary, secondary and tertiary health care.

The crisis in Libya began in February 2011 with the Arab Spring protests, which led to violent unrest in the country. According to the ICRC, the violence had, by April 2011, resulted in many deaths and vast numbers of injuries. In the aftermath, armed groups

1 Between 2010 and 2015, nearly half of all civilian war deaths worldwide occurred in Syria, Iraq, and Yemen: ICRC, "Iraq, Syria and Yemen: Five times more civilians die in city offensives, new report finds", June 2017: www.icrc.org/en/document/iraq-syria-and-yemen-five-times-more-civilians-die-city-offensives-new-report-finds

proliferated, accompanied by further violence and instability across the country, which flared up again in 2014. In all, tens of thousands of people have been injured or killed, with an estimated 10,000 to 15,000 people killed on both sides between February and June 2011 alone, according to the UN Human Rights Council mission to Tripoli and rebel-held areas in late April 2011.

In these worn-torn countries, the International Red Cross and Red Crescent Movement has stepped in to try to prevent the collapse of the health-care systems and fill the gaps if the collapse has already happened. In some cases, it has lent technical and logistical support to existing hospitals (by providing medical supplies, repairing or improving infrastructure or sending specialized medical staff, including surgeons, physiotherapists and nurses). In other cases, it has set up an entire temporary hospital.

Due to its vast experience in this domain, the ICRC has become a global reference on war surgery in situations where resources are limited, and has developed surgical principles for caring for wounded victims of war. Saving a life or limb is a preliminary step in war surgery, but treatment is not complete until the patient is fitted with a prosthesis, if needed, and has completed the physical and mental rehabilitation programmes and become an active participant in the community again, socially and economically. This can include introducing and spreading awareness of cost-effective, locally supported pain-management techniques, such as mirror therapy.

In some cases, wounded people may not have access to proper health care and the right expertise when they need it, and their wounds may require major reconstructive surgery to give them back a reasonable level of function. A lack of time, adequate facilities and surgical expertise often limit the extent to which major reconstructive surgeries can be performed. But there are occasions when these surgeries are indicated and can be performed effectively, even where resources are limited. For that purpose, the ICRC has set up centres in secure areas, such as Lebanon, where patients who did not have access to the proper treatment or follow-up can get the surgeries and rehabilitation they need.

The National Societies and the IFRC have also contributed to war-surgery efforts. They have provided human resources and donated money and materials. They have also coordinated with the ICRC to implement auxiliary health-care programmes, such as in first-aid, pre-hospital care, physical rehabilitation, mental health and psychosocial support, and fostering safer behaviour in areas contaminated by weapons.

The stories that follow shed light on some of the Movement's activities and projects related to war surgery, as told by medical professionals who have worked in Gaza, Yemen, Iraq, Syria, Libya and Egypt over the past ten years. They are stories of recovery in post-conflict environments, and emphasize the links between war surgery and complementary programmes[2] that help minimize the effects of the initial trauma and facilitate a full recovery. They also touch on the weapon contamination programmes that prevent further harm to civilians and health-care professionals by clearing battlefields of booby-traps, unexploded ordnance, and likely chemical weapons before health-care staff arrive and the local population returns. Finally, they highlight the need for strong and effective coordination within the Movement. These are the stories of humanitarians who have worked and are still working to save and improve the lives of people across the world.

2 Some of these activities are carried out in countries not affected by conflict, such as Lebanon, for the benefit of people affected by armed conflict in neighbouring countries.

GAZA, 2008–2009

"FOR 24 HOURS, I WAS FUELLED BY ADRENALINE"

DR MAURO DALLA TORRE
ICRC REGIONAL SURGEON FOR AFRICA

I arrived in Jerusalem on 31 December 2008, then passed through Erez Crossing to Gaza on 4 January 2009. It was the dead of winter and the mood was tense as our group first caught sight of the effects of the heavy bombing. I stayed in Gaza until the end of the conflict, in a house three kilometres from the hospital.

As both an anaesthesiologist and a war surgeon, I worked in the emergency department at Shifa Hospital. Inside, it wasn't easy. No one knew you at first and you had to build trust, but eventually we all became supportive of one another. In addition to the local staff, we were joined by doctors from the Qatar Red Crescent. It was intense – one of the circles of hell – and a totally new experience in terms of the mass influx of casualties. You had to maintain control; it was chaotic but functional. Most of the wounded were civilians; only a very few were combatants. I was in the critical area – the shock room – a bit away from the entrance. I had three beds. It was difficult to prepare the patients, so there had to be a lot of coordination between the staff.

One day, we received a lot of injured people that had to be intubated but there weren't any beds or anyone to help. I had to improvise to increase their chances of survival, so I asked a few students for help, and we started to squeeze balloons to help the patients breathe. Many of the wounded were unconscious from the blast and had lost too much blood so they were in shock. We had to use common sense to help them before they collapsed. Many relatives of the wounded also flooded in, and we had to control the crowd, which was extremely difficult. There were also armed people, and screaming everywhere. The cold weather didn't help: blast waves can break the windows so we had to keep them open, but we didn't have enough blankets because of the massive influx. Rooms filled up very quickly. It was non-stop, and for 24 hours I was fuelled by adrenaline. In the end, I was so exhausted I couldn't stand. I felt so tired after the ceasefire. I don't think I'll ever again have such an extraordinary experience, a human experience!

For the International Red Cross and Red Crescent Movement, and in every situation involving people wounded in war, the choice must be made between setting up an autonomous surgical unit or working with existing surgical services. Making the right decision involves considering a whole set of factors, such as the number of people wounded, security for both patients and staff, access to health-care services, and the quality of care. The security of the hospital is the primary consideration. In hospitals that treat people wounded in war, certain basic principles must be upheld: there can be no weapons, no political activity and no discrimination against wounded people from the enemy side.

Dr Mauro Dalla Torre at Shifa Hospital in Gaza, 2009.

GAZA, 2010

"WAR SURGERY NEEDS TO BE SUSTAINABLE"

DR JOHANNES SCHAD
GERMAN RED CROSS
SURGEON AND EMERGENCY MEDICINE DOCTOR

When I arrived for my assignment in Gaza in 2010, it was just about a year after the Israeli military operation of 2008–2009. The conflict had really taken a toll on the civilian population. Hospitals were overstretched with people who'd been wounded, including small children, women and elderly people. The medical personnel did an outstanding job and showed so much determination – working long hours to save lives in extremely demanding situations. Nonetheless, the emergency rooms were overwhelmed by the influx of patients over such a short time.

Most of the trauma patients were brought to the emergency room at Shifa Hospital in Gaza City, which is the biggest hospital in the Gaza Strip and the only one with a department specialized in neuro- and thoracic surgery. It became clear very quickly that the facility couldn't cope with such high demand, especially in the emergency room and with prioritizing patients. The lack of triage at admission and the insufficient security framework made the orderly admission of patients almost impossible.

To improve emergency department processes throughout Gaza, the ICRC set up a programme in cooperation with the Palestinian ministry of health. The ICRC was well placed to design the programme because of its nearly 50 years of experience in the occupied Palestinian territory and its active involvement with interdisciplinary medical teams there during times of conflict.

After about 12 months of continuous work, the emergency room at Shifa Hospital reopened on 1 December 2010. The start phase was somewhat bumpy, but it soon became apparent that acceptance among the staff, authorities and patients was very high. Everyone involved had to be trained on the new concept before processes could run smoothly. Today, you can still see the lasting effects of the changes made and the reorganization of the processes. It is so important that the work we do is sustainable, so that health facilities can continue functioning fully even without our support.

Wounded civilians are likely to arrive at the hospital without having received first-aid and without the help of an ambulance service. Those who are less seriously injured therefore tend to arrive first, and the hospital is often where the first triage is performed. Whereas under the military system triage takes place near the battle lines to determine who should be evacuated first. Whatever the prior treatment or sorting, triage must be carried out again when the patients reach the hospital, because their condition may have changed and the hospital's priorities may be different. All patients arriving at the hospital during an influx of casualties go through the triage process.

Dr Schad, Project Manager and Surgeon for the German/Finnish Field Hospital in the Carrefour stadium, Haiti, April 2010.

LIBYA, 2011

Weapon Contamination assessment entrance of Benghazi, Rapid Deployment Unit Mission Libya, April 2011.

Srdjan JOVANOVIC/ICRC

LIBYA, 2011

"TWO-WAY SUPPORT FOR BETTER UNDERSTANDING"

SRDJAN JOVANOVIC
ICRC WEAPON CONTAMINATION COORDINATOR

I landed in Cairo, Egypt, then travelled by car to Benghazi, Libya. From March to May 2011 I visited Misrata and Ajdabiya. We worked closely with the Libyan Red Crescent in Benghazi and Misrata to assess the risks posed by mines and other unexploded ordnance and the potential threat from chemical weapons. We also helped educate civilians on these weapons to help prevent accidents.

It was a very tense situation for the Libyan population; there was a lot of fear about how the situation would unfold. People were full of emotions. The security situation was very unstable from the early days due to the availability of weapons, and the many armed people and armed groups fighting for different objectives. The situation was fluid.

The only way to travel to Misrata – the worst example of urban warfare – was by boat. The first time we went there we noticed that the weapons were different. We worked as closely as possible with the health team: we maintained contact with the war surgeons, who had some understanding of weapons and their effects. Some weapons we didn't recognize. We had to discuss with the surgeons what the most common injuries were, and which weapons cause which injuries, in order to have a better understanding of the situation and to plan preventive measures for the population. We also needed to plan precautionary measures for potential chemical weapons. It was a two-way support system between the weapon contamination team and the health team.

In countries where densely populated areas have been severely contaminated by unexploded ordnance or chemical or other weapons, the ICRC works with the authorities to help them manage these extra challenges. The ICRC's support often includes weapon decontamination training, or developing and promoting best practices for the safe management of victims contaminated in chemical, biological, radiological or nuclear events. The aim is to improve preparedness and give the authorities and their agencies the tools they need to deal with such incidents in a timely and effective way that minimizes risks to health-care staff and facilities.

Weapon Contamination assessment in Gaza, Rapid Deployment Unit mission July/August 2014.

Srdjan JOVANOVIC/ICRC

LIBYA, 2011

"THE VALUE OF THE RED CROSS AND RED CRESCENT"

DR MARCO BALDAN
ICRC WAR SURGEON

Ajdabiya. A Norwegian Red Cross nurse working for the ICRC tends to a wounded person brought to the hospital in Ajdabiya to have his leg and arm amputated. "The care given to this man by the local medical staff has been as good and caring as for any other patient here even if he was brought here from the opposite site of the fighting," says Liv.

I was involved in the ICRC's response to the Libyan emergency from the very beginning. Upon receiving a formal request for assistance from the Libyan Red Crescent, the ICRC decided to send two surgical teams with surgical supplies and equipment to Benghazi and to offer similar support to Tripoli. I was leading the surgical teams sent to Benghazi, while Dr Chris Giannou, a former ICRC head surgeon, led similar teams for western Libya. The teams were made up of staff from the Scandinavian and German National Societies. In the Benghazi area, we worked at the Benghazi Trauma Centre, the hospital identified as the main referral centre for war victims in eastern Libya. Our teams also went to a hospital in Ajdabiya and closer to the front line in the direction of Sirte.

I coordinated the surgical teams during the initial two weeks of the emergency operation. The operation was led by the ICRC with support from the Scandinavian and German National Societies. Many patients were admitted, adrenaline was high among staff, and there was a sense of engagement and commitment from everyone to do something useful for their country. In my role as a team leader, I organized our time in the hospital together with the chief surgeon. One ICRC team was supposed to review complicated cases and operate on them with their Libyan colleagues. I was regularly liaising with the hospital's chief surgeon on strategies to keep the hospital efficient 24/7 in terms of bed availability, staff rotation, replenishment of supplies, and sterilization of equipment.

We concentrated on patients injured by bullets, bombs and mines, on re-operating on some of the complicated cases and on providing advice on how to deal with patients admitted to the intensive care unit in critical condition. I appreciated the good and constructive cooperation between ICRC and the staff seconded to the ICRC from National Societies. There was also excellent cooperation with the staff from the Libyan Red Crescent. Thanks to their organization and support, the ICRC's surgical teams were fully operational within a few hours of arriving in Benghazi. The Libyan Red Crescent had provided us with office space at their headquarters, support staff and help with logistics. I believe that this experience really demonstrated the value of the National Societies.

With National Societies in 191 countries and more than 17 million volunteers locally, the International Red Cross and Red Crescent Movement is very often the first to respond to people's needs and give them humanitarian assistance in emergencies. In armed conflict, the ICRC takes the leading role, working together with the National Societies called on to come to the aid of the victims.

EGYPT, 2011–2014

"EMERGENCY ACTION TEAMS"

SOURCE: EGYPTIAN RED CRESCENT

Egyptian Red Crescent, on 25.01.2014 in Cairo during 25 January anniversary demonstrations. Emergency action teams volunteers are taking an injured man to the Red Crescent hospital in downtown Ramsis area.

After the 25 January 2011 revolution, the Egyptian Red Crescent mobilized its teams to assist people who became stranded at Cairo International Airport trying to flee the country. Through that experience, the organization realized that it needed to be better prepared and able to do more to respond in emergencies.

Starting on 6 October 2011, the Egyptian Red Crescent carried out an initiative in cooperation with the ICRC to form emergency action teams. The initiative trained and equipped ten five-member teams in Cairo. The training focused on first-aid, team-building, the safer access framework, restoring family links, setting up first-aid posts, medical evacuations, providing psychological support, dealing with risks related to landmines and managing operations. It also included several practical exercises and manoeuvres to reinforce the knowledge and techniques the teams would need in emergencies.

Shortly afterwards, violence broke out in Tahrir Square. Over the span of a week, the teams provided first-aid to 1,215 wounded people, evacuating them when necessary.

In 2012, the Egyptian Red Crescent further expanded its emergency preparedness and response capacity. In cooperation with the ICRC and the IFRC, the organization set up five more branches and 20 new emergency action teams with 100 trained and equipped staff members and volunteers. In 2013, 195 staff members and volunteers formed 39 additional teams.

All these efforts showed their worth in 2014, when the intervention of the Egyptian Red Crescent was much needed and valued. On several occasions the teams were sent outside Egypt to provide services to the public on a purely humanitarian basis. The teams also began providing their services at protests and demonstrations, and at social and sports events. Over the course of 2014, 175 staff members and volunteers formed another 35 teams.

If first-aid services are well organized, they can play a key role in improving the survival rate of the wounded after a disaster or during an armed conflict or other situations of violence. Daily practice, preparedness, and a systematic approach to operations make first aiders confident and efficient in their work.

Rawan playing with her nieces at her home in Khan Younis, South of Gaza Strip four years after extensive rehabilitation.

GAZA, 2014

"RAWAN'S HOPE FOR A MORE PROMISING FUTURE"

QATAR RED CRESCENT SOCIETY

Today, fourteen-year-old Rawan al-Najjar plays happily with her nieces and nephews in their home in Khan Younis, Gaza. But that peaceful scene is a far cry from how things were just a few years ago. In the shelling of the summer of 2014, Rawan and her family sought refuge in a neighbour's house. But when that house was hit and collapsed, she became trapped under the rubble.

"The whole world saw those painful pictures of my daughter and her bloodied face," said Rawan's father, Abu Muhammad Najjar. Once the rescuers realized she was still alive, Rawan was sent to European Gaza Hospital, where she stayed in intensive care for six days. When she was transferred to the neurosurgery department, "we prayed to God to bless her with healing, to help her regain her beautiful smile and be able to come home." He added that the hospital's management decided to transfer her to the Palestinian Red Crescent's al-Amal Hospital, which had been inaugurated by the Qatar Red Crescent in 2013.

The chief of al-Amal Hospital, Dr Wael Makki, said, "During Rawan's 17-day stay, our rehabilitation staff gave her a combination of occupational, physical and psychological therapy to ensure she could return to normal life. We are very pleased with her progress and proud to be able to offer these rehabilitation services to the wounded and sick in Gaza."

Rawan says she will never forget her time playing, painting and reading beautiful stories in the rehabilitation department at al-Amal Hospital. Now she wants to help others in her community through volunteering.

The continuum of care starts when the injury occurs and continues through hospitalization, followed by physical rehabilitation and mental health and psychosocial support when needed. It therefore includes pre-hospital care (e.g. first-aid, transport care at primary-health-care centres), hospital care (e.g. surgical and medical care), physiotherapy, prosthetics or orthotics, and mental health and psychosocial support. When treating patients' medical problems, nurses, physiotherapists, mental-health specialists and social workers try to address patients' mental, social and economic needs as well, by involving others in the community who can provide help.

ADEN, YEMEN, 2015

"CROSSING THE SEA FROM DJIBOUTI TO ADEN, PART 1"

On its way to Aden from Djibouti carrying medical staff and supplies, the emblem is spread on the boat for recognition and protection.

One night in April 2015, a four-member ICRC mobile surgical team boarded a 60-foot wooden cargo boat loaded with medical supplies and set off from Djibouti for the 12-hour trip across the Gulf of Aden. There had been intense fighting in Aden for the past month and the locals were suffering the consequences. Medical expertise and supplies had become scarce and the number of casualties was on the rise.

Marco Baldan, an ICRC war surgeon, was leading the team into a war zone, but that's a core part of what the ICRC does – providing help where it's needed most. "I could be killed, but I don't think that'll happen. Once I'm there we'll see how it goes," he said just before setting sail. "I've been in these situations so often – I'm in my element. I find that if you follow the security rules you're fine. I've always felt safe on all my ICRC assignments," he said.

Ana Lufinha, an anaesthesiologist from Portugal and another member of the team, said she was more worried about the task ahead of her. "What if there are more patients than we can handle? I hate it when patients die, will I be able to cope? Can we provide the medical care that's needed?" she asked. "But I'm still going. I think I have a duty to go. As a doctor I feel that I must help people if I can."

Unfortunately, responding to a humanitarian crisis in Yemen caused by war is nothing new for the ICRC. When civil war erupted in North Yemen in the early 1960s, the ICRC flew in a surgical team to treat the wounded. Medical supplies were flown to Saudi Arabia, then carried into Yemen by camel.

With the support of National Societies, the ICRC and the IFRC have set up a shared catalogue of emergency items, which helps ensure that relief items for use in emergency operations are selected and procured in a standardized way. Standardization facilitates quality assurance, improves communication and reporting, and helps prevent unsuitable donations.

The boat leaving Aden after unloading the shipment.

ADEN, YEMEN, 2015

"CROSSING THE SEA FROM DJIBOUTI TO ADEN, PART 2"

In March and April of 2015, the ICRC helped improve emergency care at al-Jamhouria Hospital in Aden by providing essential surgical and other medical supplies and setting up a triage tent to expedite care. A mobile surgical team was also sent. They worked for three weeks, almost around the clock on busy days.

With support from the ICRC, the Yemen Red Crescent Society's emergency response teams worked to transport the wounded to hospitals and, where possible, remove dead bodies from the streets, despite the difficult conditions.

When the situation deteriorated further, the ICRC opened a surgical hospital in Aden in June 2015. The Ministry of Public Health provided the space – a 36-bed hospital in the al-Mansoura health centre. It was staffed by an ICRC specialist surgical team and local health workers. The hospital treated people wounded in the war and those in need of post-operative care.

Well-managed triage = well-managed hospital

In war zones, patients injured by bullets and bombs often come to hospitals in waves. Triage means deciding which patients to treat first based on their medical condition. It involves prioritizing those with more serious injuries, but also making tough decisions about who can be treated and who is beyond help. Triage is needed in order to deal with sudden, disproportionate numbers of patients, known as a mass influx. Triage is a continual process that happens before more advanced care; in certain circumstances, it takes place where people are injured. Because a lack of triage capacity can have such dire consequences, the ICRC invests a lot of energy and resources in training on triage and managing mass casualties.

ICRC surgical team operating at al-Jamhourieh Hospital in Aden.

ICRC

MA'RIB, YEMEN, 2015

"TWO ADNANS, TWO STORIES"

MA'RIB GENERAL HOSPITAL AUTHORITY
QATAR RED CRESCENT SOCIETY

"My name is Adnan al-Sabri. I'm 35 years old and I come from Taiz. I used to work on the mine clearance team, but when I was on assignment in Ma'rib, I was injured when my de-mining device malfunctioned and the mine I'd come across blew up. I was rushed to Ma'rib Hospital. My right foot had to be amputated by the surgical team, but I am very grateful to be alive."

"I'm Adnan Ali, a teacher from Taiz. I've been working at a school in Ma'rib Governorate since 2006. In May 2015, my family and I were hit by a rocket as we passed through the former Jaffniyah front. My eldest daughter was killed and the rest of us were injured. My wife suffered permanent hearing and vision loss. My second daughter suffered burns and hearing loss. My youngest child was hit by multiple bomb fragments, one of which is still lodged near his heart. I had two major injuries, including a burned leg and more than 120 bomb fragments embedded in my body.

We've been living in the camp for the wounded in Ma'rib for over a year. We've had more than a dozen surgical procedures. I'm grateful and blessed for the recovery we've made so far. But we still have more operations to undergo."

Not all war wounds are equal. Wounds from bomb blasts and bullets cause extensive damage to body tissue. The tissue also becomes severely contaminated from nearby foreign material, like pieces of clothing. The trauma is usually much worse than what can be seen from the outside. With mine injuries, the victim's leg may be severed or detached, and stones, mud and bone fragments are often blown up into the thighs, buttocks or genitals much further than what can be seen externally. There are well-established surgical principles for managing weapon wounds (e.g. adequate primary wound excision followed by delayed closure). The large number of amputees following armed conflicts can be partially explained by the use of anti-personnel mines in armed conflicts, and the fact that evacuations are frequently slow and staff in conventional surgical services are not familiar with war surgery.

The surgical team operating in Ma'rib General Hospital Authority.

Qatar Red Crescent

BEIRUT, LEBANON, 2016

"ME AND MY MIRROR"

STEPHEN SUMNER

I lost my leg roughly 14 years ago in central Italy. I was hit by a car while on my motorbike and left for dead. Everything ultimately healed, more or less, but the leg had to go. Within three weeks, and while I was still in the hospital, the phantom pains started – incredibly excruciating ones. I endured the agony for around four or five years before I finally got frantically, miserably desperate and tried "the mirror". Four or five weeks later, the pain was basically gone forever! Today, I am still pain free.

I had maybe the only truly brilliant idea I've ever had and decided to take the therapy on the road. I took load after load of hand-made mirrors on a big cargo bicycle to help people in poor and war-torn countries where they would never have discovered the treatment on their own. Me and My Mirror was born in 2011. When a person loses a limb, their body no longer corresponds to the brain's "mapping": the command signals from the brain short-circuit on their way to the extremity of the missing limb, and the response signals are corrupted too. Essentially the brain is angry, frustrated, confused, and this manifests itself as brutal, electrically generated pain experienced by the amputee in the gone limb. The mirror is really no more than an aid (a big one) to visualization. Through the eyes and via the mirror you are enabling the brain to "see" a perfectly sound and symmetrical limb in place of the one that has disappeared.

I began in Cambodia working on my own by bicycle and feeling my way into the NGO community. I would meet village elders and learn from them the location of nearby amputees, but it was more-or-less one amputee or one small group of amputees at a time. I had the great good fortune to meet receptive ICRC clinic directors and programme managers. It was a real life/game-changer for me and, suddenly, I saw that the ICRC had a much bigger picture and both a lot of influence and a high level of respect right around the world. They showed me that while finding, treating and helping one isolated village amputee at a time was (truly) wonderful, there were all kinds of ways to achieve much broader dissemination of a therapy that was proving every day that it really, really works!

The ICRC has been inviting Stephen to present mirror therapy in war surgery courses and to various universities as part of the ICRC's initiatives to build capacity and transfer knowledge through partnerships with academia and other organizations.

Phantom Limb Sensation and Pain

The loss of a limb radically changes patients' psychological self-image, but a great deal of their physiological and anatomic image remains intact – so much so that the patient still perceives the amputated limb. They maintain a complete "body map" imprinted in the higher brain centres. Many phantom sensations are not painful and should be explained to the amputee as a normal post-injury reaction. However, people born without a limb or whose limb was amputated in early childhood do not experience phantom limb sensations and pain.

S.Summer

Stephen with his mirror in Lebanon while being invited to speak about his journey and experience overcoming his phantom limb pain through "Me and My Mirror".

MOSUL, IRAQ, 2016–2017

"ALL PATIENTS AND EVENTS WERE UNFORGETTABLE"

DR TAKUYA SUGIMOTO
JAPANESE RED CROSS
WAR SURGEON

When the Japanese Red Cross decided to send some of its staff to Iraq, as part of an ICRC rapid deployment with National Societies, I was among those chosen. I'd seen the stories in the news and I really wanted to do something to help the people, so I was very grateful to have been selected. I had a briefing at my headquarters in Tokyo before leaving. When I arrived in Erbil it was already dark. Because it was my first visit to Iraq, I was a bit nervous, until I met up with a colleague from the ICRC where I was staying.

On the first day, we were informed en route that Rozhawa Hospital had received several patients with war wounds who needed operations. As soon as we arrived, we each took on our roles and started performing life-saving operations.

As a surgical team leader, I oversaw activities in the operating theatre and on the ward and treated patients with war wounds coming from Mosul. I performed more than 200 operations. The first operation would start at around 10:30am every day. As the battle grew more intense, the cases became more and more complicated. We averaged six to ten operations a day in the busiest period and sometimes worked past midnight.

All the patients and events were unforgettable. The emergency room was sometimes crowded with patients and their families. But thanks to the competent emergency room doctors, we surgeons could focus on doing our job. At one point we held a small party, mainly for the children. I did origami for them, the Japanese art of folding paper into various shapes and forms. The children liked the party, and their happiness brightened the wards.

One of the difficulties we faced was managing amputation cases. After a month and a half, we felt that our roles in Erbil had been changing. At first, we had mainly received people who'd just been injured. Then we received patients who had already been stabilized at hospitals near the front lines, or took referral cases where there had been serious complications. Whereas treating patients in acute phases made us tense, treating chronic cases required patience and time from both us and the patients. Needless to say, we successfully treated injuries from gunshots, blasts and chemical contamination. Thanks to all the members of the team – including the local doctors and nurses, interpreters and cleaners – we were able to create a great and supportive environment for the patients. There was no doubt that we gave our patients a restful place to stay.

A mobile surgical team deployed in an emergency should include one surgeon, one anaesthetist, one operating theatre nurse, one ward nurse, one physiotherapist and one hospital project manager. All of them must be trained professionals who have experience providing "usual" medical, nursing, and physiotherapy care in their countries.

Saara Mansikkamäki / Finnish Red Cross

A Norwegian OT nurse Elin Moswold, a Norwegian anaesthesiologist Per Kvandal and a Japanese surgeon Takuya Sugimoto preparing to lift a man, who got injured in Mosul, on the operation table. ICRC has put up teams of international medical professionals to work in West Erbil Emergency Hospital in Iraq to ease the huge pressure that local health authorities are facing when fighting in Mosul intensifies.

Hogna, Zummar, Iraq. ICRC weapon contamination experts conducted extensive chemical decontamination trainings in health facilities north of Iraq very close from the frontline.

MOSUL, IRAQ, 2017

"A GHOST TOWN FILLED WITH DUST"

LÉONE GAGNÉ
CANADIAN RED CROSS
OPERATING THEATRE NURSE

"At the height of the fighting in West Mosul, we provided life-saving front-line care to civilians with traumatic injuries, at a time when the health-care centres had been seriously damaged or looted," said Katharina Ritz, head of the ICRC's delegation in Iraq.

The ICRC led mobile surgical teams staffed by medical professionals seconded from National Societies. Léone Gagné, from the Canadian Red Cross, was one of the nurses who joined the teams.

I was on assignment from 19 June to 20 July 2017. When we arrived at our residence, we had a briefing on possible chemical contamination. Then we went to work. The first time I set foot in Mosul's General Public Hospital, it was a moving experience: there were so many people waiting in the emergency room for family members who'd been injured, and so many armed guards too.

We began the day's operating programme: emergencies first, then elective surgeries. The injuries from the war were mainly open fractures and abdominal injuries and we had about five or six patients per day. I wanted to be useful but it felt like we couldn't do enough, with so many people in need.

The main challenge for me was being confronted with a "live war" where I could hear bombs throughout the night. When I finished my assignment, I left behind a ghost town filled with dust. I hope someday to return and see the children playing in the streets, rather than kept at home out of fear. It would be interesting to come back in ten years and see the city rebuilt. All those innocent victims of war, those separated families and orphaned children are impossible to forget.

In hospitals not under its control, the ICRC has to ensure that certain basic principles are upheld (e.g. no weapons in the hospital, no discrimination against wounded people from the enemy side). ICRC surgical hospitals differ considerably from army medical units, in that the ICRC usually has no control over the system for evacuating the wounded and has no referral facilities. Each ICRC hospital must therefore be able to serve as both a first-aid and a final referral centre.

Léone Gagné/Canadian Red Cross

Léone Gagné in the hospital's supplies room.

MOSUL, IRAQ, 2017

"PEOPLE ARE VERY RESILIENT IN CRISES"

SAARA PIHLAJA
FINNISH RED CROSS
PHYSIOTHERAPIST

Two children in the garden of Rozhawa hospital in their attempt to play football during their physiotherapy session.

I went on my assignment with an open mind. I had no expectations, which was a good thing. When I first set foot in Rozhawa Hospital, near Mosul, I was naturally a bit nervous. But also curious. I was looking forward to being able to jump in and get acquainted with the work, the patients and the team members. The work was very intense and after a day I already felt like I had been part of the team for a long time. Rozhawa Hospital was busy with patients wounded from the fighting in Mosul, but also with other patients from the Erbil area. Our team worked in the emergency room, in the operating theatre, in the men's and women's wards and, when needed, also in tents set up in the hospital yard to serve as intensive care units.

I was the only ICRC physiotherapist working in the hospital at the time. I had to have a schedule and a to-do list for myself to be able to manage my time. I made personalized training programmes for the patients so that they, with the support of a family member or an acquaintance, could stay active and motivated even when I couldn't be there.

The training programmes varied depending on the patient, their age and interests and their physical condition. It could be practising transfers between the bed and the wheelchair or working on balance, motor coordination or muscle strength with a football or an elastic band, for example. Despite the large number of patients, I still remember each of them and their stories. Some of them were in extremely difficult situations, but at the same time I find that people are very resilient in crises. The children were especially joyful; their playing brought hope to people's daily lives in the hospital.

Physical rehabilitation is a vital part of treatment for people wounded in war. It enables people with physical impairments to gain mobility, which is part of the overall rehabilitation process and often essential for people to be able to work, get an education and participate in the life of the community. Physical rehabilitation includes providing mobility devices, such as prostheses, orthoses, walking aids and wheelchairs, and the therapy needed to make best use of the device.

Saara Pihlaja/ Finnish Red Cross

Saara Pihlaja – on the right - and Swedish nurse, Niina Paakkinen, helping a child during his physiotherapy session.

MOSUL, IRAQ, 2017

"ABDULLAH: HEALING WOUNDS, BUILDING A FUTURE"

QATAR RED CRESCENT SOCIETY

As he was wheeled into the hospital, five-year-old Abdullah had no idea what was going on. Strange faces were rushing around him; he felt alone, and scared. His tearful eyes spoke of the horror he had witnessed. Abdullah's family, like many others, had been forced to flee the fighting in Mosul and the surrounding towns and villages. They found refuge in a school in one of the safe areas.

One night, the school was hit by an air strike. Abdullah was injured by shrapnel, causing a bone rupture. He was put in a Qatar Red Crescent ambulance and rushed to Hamam al-Alil Field Hospital, run by the Qatar Red Crescent, south of Mosul. He was operated on and stabilized. From his family of ten, only Abdullah and his nine-year old sister survived.

The hospital where Abdullah was taken treated around 2,000 people wounded in the war while it was in operation, from February to September 2017. Abdullah's physical wounds have now healed, but he still can't quite comprehend that his family is gone.

Because limb wounds are so common in armed conflict, all surgeons must have some knowledge of basic fracture management. Cultural concerns are also important: many ICRC and National Society surgeons have had to "negotiate" an amputation with family and clan members. Each surgeon must determine the best policy to follow, based on the cultural context and the resources available, including physical rehabilitation services and prostheses. Yet they must never forget that the priority is saving the life, not the limb. But even that may not always hold true: in some societies, people prefer death to the physical mutilation of an amputation, and the wishes of the patient and family must be respected.

Abdullah after being operated on in the garden of the hospital.

Qatar Red Crescent

Qatar Red Crescent surgical team in Hamam al-Alil field hospital of the Qatar Red Crescent, South of Mosul.

MOSUL, IRAQ, 2017

"HUMANITARIAN HELP CAN BE A WAR OF ITS OWN"

GUIDO VERSLOOT
NETHERLANDS RED CROSS
PHYSIOTHERAPIST

I arrived in Erbil, then took a car and drove to Mosul together with the team. No one knew exactly what to expect. The military operation to retake Mosul had started in October 2016, and this was May 2017. I had been seconded from the Netherlands Red Cross to the ICRC to work at Mosul Hospital until September. The hospital was near the front line and had been heavily damaged in the fighting. There was still heavy shelling around the hospital.

When we arrived, no ward was ready, so we did only emergencies and referrals to other hospitals. But soon afterwards we set up a 30-bed ward and started to receive patients in our emergency room directly from the front line. We had to make decisions about referrals, immediate life-saving surgery, admission to the ward, and other methods of treatment. Sometimes patients came in one by one and sometimes all at once. We had 15 to 20 patients a day with fresh conflict-related wounds (mainly blast injuries, but also bullet wounds). Besides that, we had to deal with malnutrition, which complicated the rehabilitation process incredibly.

The difficult judgements we had to make were mainly about how much to push the patient in the rehabilitation process and how much to let them recover from the psychological damage caused by the war – both are highly important. It was an emotional rollercoaster, from the loss of patients, to patients who recovered incredibly fast, to patients who disappeared over night. Providing humanitarian help can be a war of its own. As a physiotherapist, I felt I could really make a difference to the people of Mosul. With minimum means, we could achieve a lot thanks to the dedication of the team. We worked for months on end with barely any breaks; I was extremely tired, but satisfied.

"Physical rehabilitation is a priority; dignity cannot wait for better times." Alberto Cairo, ICRC Physical Rehabilitation Project Manager

Because physiotherapists play such a key role on the medical team, they should be recruited from the outset. This allows them to recruit and train additional staff for the physiotherapy team and to establish guidelines and standard procedures. Most of their work focuses on mobilizing patients and restoring limb function. In addition, breathing exercises and chest physiotherapy are important for all patients who have had a major operation. Physiotherapy services may include the fitting of artificial limbs, but this is often performed in separate establishments. In all cases, physiotherapy must be integrated into surgical and nursing care.

Guido Versloot in one of his missions.

MOSUL, IRAQ, 2017

"GOING HOME WITH NO HOME TO GO TO"

HELI LAAPOTTI
FINNISH RED CROSS
WARD NURSE

I was sent by the Finnish Red Cross to Iraq on two assignments. I worked as a ward nurse for two months as part of the mobile surgical team at Rozhawa Hospital in Erbil. Then I spent a week in Shikhan Hospital. On my second assignment I was sent to Mosul Hospital for one month.

I went with no expectations. Rozhawa Hospital was a busy trauma hospital in Erbil. The ICRC was running two wards, one for men and one for women, but also worked in the emergency room and the operating theatre, in cooperation with hospital management and the local nursing staff. I also attended to some patients in the intensive care unit every now and then. We often had to use the hospital parking lot as our overflow space. We put up tents for patients when the situation was overwhelming.

Mosul Hospital was on the west side of the city and been badly damaged in the battles. All our patients came from the emergency room. Most had been badly wounded, and many were severely malnourished and traumatized. Our team worked closely with the local health-care professionals and the Qatar Red Crescent Society.

I found that my previous Red Cross experience and training helped a lot in my daily work. My long career working in acute care, basic first-aid and preparedness also gave me a strong background for working with limited medical resources. Treating children with war wounds was hard. Who would hurt children, pregnant women or disabled people? The use of chemical weapons was an issue that came up every now and then, causing breathing difficulties and large burns on patients' skin, and putting the staff and other patients at risk for contamination. Local nurses and the nurses on our team worked side by side sharing their expertise. This saved many lives, but some we could not save. Physical wounds heal, but war leaves marks that last for a long time. It was hard to send patients home after treatment; they didn't have homes to go to – their homes had been destroyed. They had no family to care for them, no pharmacy, no doctor for follow-up visits.

Tents provide a temporary solution for hospitals in the short term, providing additional ward space or a triage area. But tents are not ideal: they don't protect from flying bullets or bomb fragments and they're easily damaged, unstable, and difficult to heat in cold weather and keep cool in hot weather. Tents should always be erected on a solid base, especially if they are for an operating theatre.

Heli Laapotti/ Finnish Red Cross

Heli Laapotti, a ward nurse, during her shift.

Saara Mansikkamäki/ Finnish Red Cross

ICRC's surgical team taking a break after an operation and preparing for the next one in West Erbil Emergency Hospital. The days are scheduled to last from 8am to 8pm, but many times there are so many patients to treat that the team gets back to their residence closer to midnight.

LEBANON, 2017

"A MAJOR ACCOMPLISHMENT"

DR CHRISTINE BARTULEC, ICRC
SENIOR MEDICAL OFFICER, ANAESTHESIOLOGIST, INTENSIVIST, EMERGENCY MEDICINE DOCTOR
RAFIK HARIRI UNIVERSITY HOSPITAL (RHUH)

Dr Christine Bartulec - on the right.

I'd call the ICRC's ward a major accomplishment. We were able to meet our objectives: offering access to care, providing a continuum of care, maintaining the quality of care, building capacity and transferring knowledge. Nurses and doctors on the ward worked together closely to deliver high-level care to patients. Physiotherapy was part of the daily ward round. We followed up on each patient closely and served as the focal points for doctors and residents. We also trained residents as part of their curriculum.

"CHANGING PATIENTS' LIVES"

LAMA SLAYHI, ICRC
SENIOR SOCIAL WORKER IN THE WARD RAFIK HARIRI UNIVERSITY HOSPITAL (RHUH)

Lama Slayhi – on the left.

I see first-hand how we're changing patients' lives. Our work doesn't end with medical care in the hospital. We also follow up on patients, providing them with economic security by connecting them with the NGOs and associations that can help them. We make sure each patient is referred to the right organization.

Victims and their families may not be able to pay for appropriate care, equipment and rehabilitation. And many never even seek help, because travel may be unsafe or restricted due to ongoing conflict, or because hospitals are in zones controlled by the opposing party. To make matters worse, many areas may simply be too dangerous for humanitarian organizations to operate in.

LEBANON, 2017

"RECONSTRUCTING LIVES, BUILDING HOPE"

ICRC IN LEBANON

Weapon Traumatology Training Center, Tripoli, North Lebanon.

The Weapon Traumatology Training Centre (WTTC) was set up in Tripoli, Lebanon, in September 2014. It provides surgical treatment (including reconstructive surgery), physical rehabilitation, and mental health and psychosocial support to people wounded by weapons, free of charge. It's also a way for the ICRC to transfer its know-how in surgery and rehabilitation to surgeons and other health-care professionals. The centre uses innovative techniques to treat injuries. One of these is the Masquelet technique, for complex bone injuries, which has been used in 45 operations. Since its founding, the WTTC has admitted or re-admitted more than 1,500 wounded people.

At the WTTC, patients are not just fitted with prostheses, they also receive mental health and psychosocial support to help them keep up with their treatment and, if needed, overcome the trauma they've experienced. The WTTC also cares for patients whose initial treatment was not correctly managed, leading to permanent physical limitations. The treatment aims at restoring function to help patients integrate socially and, if possible, become economically independent.

Many conflict zones are virtually inaccessible for humanitarian organizations that provide medical care. Local doctors tending to the wounded are not always specialists and often can't provide proper emergency and follow-up treatment, no matter how hard they try. As a result, some patients develop chronic complications, which are much more difficult to treat. For that reason, specialized reconstructive surgery departments maybe set up in safer areas to help these patients, and perform life-improving surgeries as needed.

Virtual reality applications for physical rehabilitation, such as Kinapsys, have recently been finding their way into physiotherapy. They allow for increased training intensity and patient motivation and have been found effective at improving motor learning and retention, reducing fall risks, and improving balance with various neurological impairments. The centre is currently evaluating the potential benefit of adding virtual reality to traditional rehabilitation for balance of amputees.

The centre also holds wheelchair basketball tournaments, to generate peer support and self-efficacy amongst wheelchair users. Social inclusion is the final stage of a long rehabilitation process, which starts from the moment of injury and continues through hospitalization. To ensure this continuum of care, discharged patients are referred to the physical rehabilitation programme partner clinics in the four regions of Lebanon, where mobility aids and physiotherapy sessions are provided.

Dar el Chifae, Weapon Traumatology Training Center, Tripoli, North Lebanon.

Hiba, 6 years old from Homs, Syria is getting physiotherapy sessions.

HAMA, SYRIA, 2018

"LOSING HIS LEG COULDN'T TAKE AWAY HIS HOPES AND DREAMS"

ICRC IN SYRIA

Amer's father helping him in fitting his prosthetic leg.

Sometimes, an injury temporarily takes away our abilities, but we shouldn't let it rob us of the will to live. Amer lost his leg as a baby, when he was hit by a mortar fragment while sitting on his mother's lap. With the help of his father, Amer lives, plays and studies like any other child – losing his leg couldn't take away his hopes and dreams.

"Thank God I was able to support him, and make basic tools to help him," said Amer's father. "Necessity is the mother of invention; a father would do anything for his son." Amer's father heard about a physical rehabilitation programme run by the ICRC in cooperation with the Syrian Arab Red Crescent, so he signed up. Under the programme, Amer received a prosthetic leg. Now he can run, jump, play football and bike. He plays in the garden, and sometimes his relatives and friends come by and join him. "Amer doesn't miss any school; he lives like any other child, if not better," said his father.

Prosthetic centres can be a burden on the health-care systems of low-income countries: manufacturing prostheses requires a specialized workshop and trained technicians, and then prostheses have to be fitted and the patients have to be trained how to use and maintain them. These are all essential steps in physical rehabilitation, but they take skills and resources. On the other hand, people who've been fitted with prostheses are generally more able to take care of themselves than those who have not, which reduces the socioeconomic burden.

THE OCCUPIED PALESTINIAN TERRITORY, 2018

"THANK YOU FOR HELPING ME BE REBORN"

DR FATHY FLEFEL
PALESTINE RED CRESCENT SOCIETY
HEAD OF THE PSYCHOSOCIAL RESOURCE CENTRE

Palestine Red Crescent Society

During the opening of the Palestine Red Crescent Society stress management centre, and a children's park in cooperation with the ICRC, Danish Red Cross, and the Qatar Red Crescent. This centre aims at providing a friendly place for workers, volunteers, and the local community.

Location: The coast of Khan Younis, Gaza Strip, 2016.

I will never forget the story of one man: he was so severely wounded that both his legs had to be amputated, and afterwards he was unable to leave his home. He spent seven months in the dark, gradually losing weight, his health deteriorating. We heard about him from some journalists after the conflict in Gaza in 2008–2009. We went to his home, and at first he refused to meet us. But then, three days later, his family called and said he was interested. We visited again and this time were able to speak with him.

After a month, he finally agreed to come to one of the psychosocial support centres run by the Palestine Red Crescent Society. A few months later, after supportive psychological therapy, he had become more integrated into the community. He had joined the disabled sports team, competing locally and regionally. I won't forget what he said to the team: "Thank you for helping me be reborn."

Stories like his show the value of the Palestine Red Crescent's work providing psychosocial support over the past 18 years. The programmes have included a few focused on people wounded in war, such as psychological first-aid, which provides direct practical support to those affected by a conflict or natural disaster. Another programme focuses on victims of war with temporary or permanent disabilities. It started during the Gaza conflict of 2008–2009, when there was a great need for such services. This programme has three stages:

- meet the patients and their families and be present during the rehabilitation process
- follow up after patients leave the hospital, through home visitations if needed
- provide longer-term care to certain individuals, e.g. those who lost a limb, or who suffer post-traumatic shock and have an emerging need after a physical injury.

These programmes are run by professionals in the Palestine Red Crescent, along with many volunteers. Over the past ten years, around 750 professionals and volunteers have been trained through a specialized training cycle. Psychosocial support programmes have been backed by a number of National Societies, including those from Denmark, Spain, Italy, Norway, Qatar, the Netherlands, and France as well as by the IFRC and a number of international humanitarian organizations. All programmes are implemented in cooperation with the local communities, civil society organizations and government agencies.

The success stories reassure us all that we are breathing new life into those who suffer a "short death" due to a psychological condition after a war injury. We give them back their smiles, their strength, and their appetite for life. We acknowledge that we cannot give them back their amputated limbs, but we can help them to come to terms with this loss.

In addition to physical injuries, people wounded in war often endure psychological trauma. Losing a limb is a devastating experience, and may be accompanied by shame, loss of dignity and a loss of self-esteem. The surrounding community may contribute to this by ostracizing disabled people or discriminating against them. Many victims therefore require psychosocial support.

GAZA, 2018

"I'VE NEVER SEEN SO MANY PATIENTS IN ONE DAY"

DR RICHARD VILLAR
ICRC WAR SURGEON

I work with the ICRC surgical team at the Gaza European Hospital in Khan Younis. I arrived in Gaza just 24 hours before the violence began. As we headed to the hospital, we wondered if it was the calm before the storm – the streets were really quiet. There was virtually no one around. We knew protests were expected.

I have never seen so many patients in one day. The staff had prepared for it, but even so it was completely overwhelming. Certain things really stood out. Non-medical staff stepped up and saved lives. I saw cleaners helping medics with patients. I saw management putting on tourniquets to stop people from bleeding to death. Around 120 to 130 patients were treated in the operating theatres at this hospital alone. A bus would arrive suddenly with up to 40 people on board. We just had to deal with it.

I'd seen people with gunshot wounds before, but never so many. It's my ninth or tenth assignment with the Red Cross and it was the most casualties I've ever seen in one day. I think for the staff here it was the same – they tell me they'd never seen so many patients in one day, in such a short space of time. It was a huge logistical challenge, but the teams here succeeded. They can really be proud.

The staff I am working with are brilliant and totally committed, and the patients were able to endure levels of pain which would have beaten me. There is a clear lack of supplies and medical equipment. It takes a lot of improvising to get through an operation. My fellow medics here are completely exhausted as a result of the continuous stream of patients. The first influx of wounded people was on 30 March. If it happens again, with violence on this large scale, it will be really tough to cope – but the staff here will find a way. It's what they do.

In disaster situations, and especially wars, surgical procedure is governed by very precise rules, out of the need to adapt the available means to the demand. It differs both quantitatively and qualitatively from normal situations. In such situations, it is impossible to predict the number of people who will require care. In order to work in such settings, the ICRC believes that hospital staff need to have three particular qualities: professionalism, sound judgement and adaptability.

Dr Richard Villar in Gaza.

"KNOWLEDGE TRANSFER AND SKILLS UPGRADING, PART 1"

DR MARCO BALDAN
ICRC WAR SURGEON

War trauma is a particularly challenging area of care. War, rifle bullets and bomb explosions create more damage than we can see with our eyes and require a different approach from what we learned in the medical school. The standard training for surgeons doesn't even include how to deal with these injuries.

The ICRC's Health Unit recognizes that the transition from specialized civilian surgical practice to managing war wounds may be difficult for many surgeons. They are faced with different working conditions, a lack of equipment and medical supplies, a new type of pathology and different patient expectations linked to local culture. Moreover, they are often working outside the speciality they were trained in. Over the last 40 years, the ICRC has treated more than 100,000 war-wounded patients in its independent hospitals. Based on that unique and valuable experience, the ICRC has published articles, manuals and videos on war surgery, and regularly provides training in the form of war surgery seminars/courses. These resources help health-care practitioners, and surgeons in particular, deal with war trauma and conflict settings.

The ICRC held its first seminar in Mogadishu in 1989. Since then, it has organized more than 300 such events all over the world. This training is compulsory for new ICRC surgeons, including those coming from National Societies, prior to their first assignment. It is regularly updated based on ICRC field experience and evidence-based medicine.

Because health-care professionals in general lack the training and experience to work in a hospital in a conflict setting, the ICRC has opened these courses to all health-care staff dealing with war-wounded patients, ranging from surgeons (general, trauma, orthopaedic, etc.), to emergency room doctors, anaesthetists, nurses, physiotherapists, general practitioners, etc. Both civilian and military professionals are welcome.

After attending the ICRC war surgery seminar, surgeons on their first assignment are usually sent to work under the supervision of an ICRC senior surgeon, to receive practical training on war surgery and be guided on how to manage complicated wounds with limited resources.

The ICRC also gives an emergency room trauma care course, which combines theory with practical skills on initial management of major trauma. This training encompasses not only war trauma but also road traffic accidents, burns, falls, etc., which are seen in epidemic proportions wherever the ICRC provides assistance to victims of conflicts.

In armed conflict, the ICRC takes the leading role, working together with the National Societies called on to come to the aid of the victims.

ICRC publications and audio-visual material on war surgery.

GLOBAL

"KNOWLEDGE TRANSFER AND SKILLS UPGRADING, PART 2"

DR MARCO BALDAN
ICRC WAR SURGEON

In some places, the ICRC has established partnerships with academic institutions, such as the Lebanese University of Beirut (Lebanon's public university) and the Cairo Military Medical Academy, to offer post-graduate modules or diplomas in war trauma. These are more advanced versions of the ICRC war surgery seminar. They combine lectures on topics related to war trauma with practical, hands-on training, focusing on surgeons. They provide more in-depth technical training in war surgery and at the same time build the capacity of the faculty of the local academic institution faculty, multiplying the impact. Where modules or diplomas are offered, the ICRC expects the new generation of surgeons in training to get familiar with managing war trauma. And within about five years, the university can take over teaching the modules or diploma courses with minimal support from the ICRC.

Another way the ICRC transfers knowledge and builds capacity is by distributing surgical briefing material to National Red Cross and Red Crescent Societies that recruit surgeons. The ICRC also publishes articles, manuals and videos with best practice protocols and guidelines to help war surgeons and other health-care professionals to treat people wounded by firearms and explosions where resources are limited, such as in conflict zones.

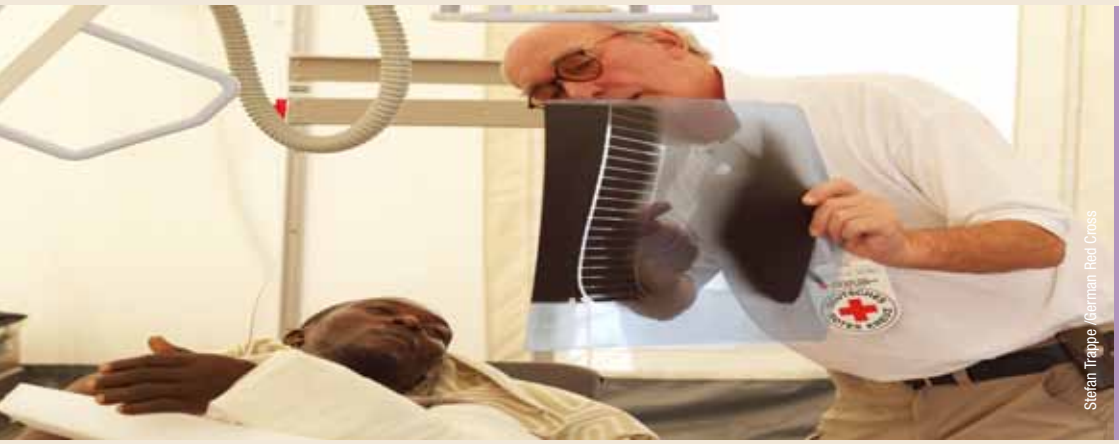
All the ICRC's medical training courses also provide an introduction to the essential principles of international humanitarian law (e.g. ban on killing wounded enemies and prisoners, respect for civilians, and for health-care staff, health-care facilities and ambulances, etc.).

Under international humanitarian law (IHL), the warring parties are responsible for treating people wounded in war. In other words, the ICRC's main role under IHL is not to treat victims of war – the governments involved in the conflict are the ones primarily responsible for that. The ICRC's task is first and foremost to ensure that the warring parties are familiar with and apply the provisions of the Geneva Conventions, i.e. that they care for members of the enemy's armed forces as well as their own, and do the same for civilians, providing medical establishments and personnel.

Dr Marco Baldan, ICRC War Surgeon
Lebanon, 2016

"TEAMWORK IS KEY TO A SUCCESSFUL ASSIGNMENT"

DR GÜNTER WIMHÖFER
GERMAN RED CROSS
SURGEON AND TRAINER



Earthquake in Haiti, January 2010. This is the Field Hospital in the Carrefour stadium. GRC doctor, Günter Wimhöfer, is explaining to a patient the x-ray of his injured arm.

I have been a surgeon, a surgical coordinator and a trainer in the field of war surgery within the Red Cross for 34 years – or 50 assignments in total. I was never comfortable working only in the "classic" medical field back home in Germany. Even when I was in medical school I knew I wanted to do medicine differently, somewhere where I was really needed. The humanitarian sector turned out to be the perfect opportunity, and so in 1981 I joined the International Red Cross and Red Crescent Movement.

On various assignments I was seconded by the German Red Cross to support the ICRC as a surgeon. I spent 15 years in many regions around the world: Asia, Africa, Europe, North America and the Middle East. Subsequently, I focused on giving training courses and workshops in the field of war surgery, like courses on emergency room trauma, and on triage and basic management of war wounds. I was one of the first trainers in this field and I am very proud to say that now, the ICRC is conducting 80 to 100 training courses a year for many different target groups. It is very motivating to see that the work you've put into something for all these years is still relevant and sustainable.

From all the cases that you encounter over the years, there are always patients you never forget. The younger patients and children we treated are still especially on my mind. I remember, during one of my assignments in Kabul, we performed major abdominal surgery on six children under 16 years old in just one day, all of whom survived. These are incredibly difficult and stressful situations but seeing the patient's recovery – which you often follow closely for a long time after they are discharged from the health-care facility – is very rewarding.

I want to emphasize that success stories like these are only possible when the whole team is pulling together. Working with limited resources, over long hours, in a quickly changing work environment means that there needs to be a lot of flexibility and a strong professional bond between all the team members – it's one of the most important factors when it comes to successful and sustainable assignments.

The situation faced by war surgery teams is completely different from that in any hospital or clinic in peace time. Injuries resulting from blasts, mines or gunshots are routine in operating theatres. The type of surgery and how the wounded are managed are very different. Many of those sent to an ICRC field hospital or ICRC-supported hospital have to rely on their own clinical judgement. The doctors and nurses sometimes work in very primitive environments and have to be well trained to make life-saving decisions.

CONCLUSION

Many of the conflicts throughout the world, and across the Near and Middle East in particular, share a common casualty: the health-care system. And when health-care systems break down, the International Red Cross and Red Crescent Movement steps in as part of its mandate. "Between 2014 and 2017, the facilities in the region supported by the ICRC (whether or not that support included hospital teams) reported a steady increase in patients with war wounds," said Marie-Therese Pahud, the head of the ICRC's health sector for operations in the Near and Middle East. "There were 112,685 of these patients in all, which represents two-thirds of the total number reported by delegations worldwide." As a result, there has been an ever greater need for Arabic-speaking medical professionals to provide war surgery, pre-hospital care, medical supervision for weapon clearance, physical rehabilitation, and mental health and psychosocial support.

The care for wounded victims of war and other situations of violence, in areas such as in pre-hospital care, surgical treatment, and physical and mental rehabilitation, is based on principles developed by the International Red Cross and Red Crescent Movement. These principles draw on the combined knowledge and vast experience – acquired over many assignments in war-torn countries – of the professionals working for the ICRC and the National Societies. Teamwork, cooperation, coordination, and complementarity all play an essential part in that care, and ultimately, in saving and changing lives.

The stories in this report represent just a few of the hundreds, if not thousands, of similar stories across the Middle East and North Africa. They provide insight into the everyday work of the surgeons, nurses, anaesthesiologists, radiologists, first aiders and psychologists who volunteer to go on humanitarian assignments. They also show the disastrous impact that wars have on people and the suffering that they cause.

This report underscores the importance of war surgery and related programmes. We hope that readers will come away with a sense of the extraordinary value of this life-saving and constantly changing humanitarian profession and will advocate on its behalf in the relevant circles. We also hope that readers will reflect on how they can promote the idea that "even wars have limits" and emphasize the importance of international humanitarian law and the protection granted to medical personnel, facilities and transport, and to humanitarians carrying out exclusively medical duties.

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The National Red Cross and Red Crescent Societies, the International Committee of the Red Cross and the International Federation of Red Cross and Red Crescent Societies together constitute a worldwide humanitarian movement, whose mission is to prevent and alleviate human suffering wherever it may be found, to protect life and health and ensure respect for the human being, in particular in times of armed conflict and other emergencies, to work for the prevention of disease and for the promotion of health and social welfare, to encourage voluntary service and a constant readiness to give help by the members of the Movement, and a universal sense of solidarity towards all those in need of its protection and assistance.

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