



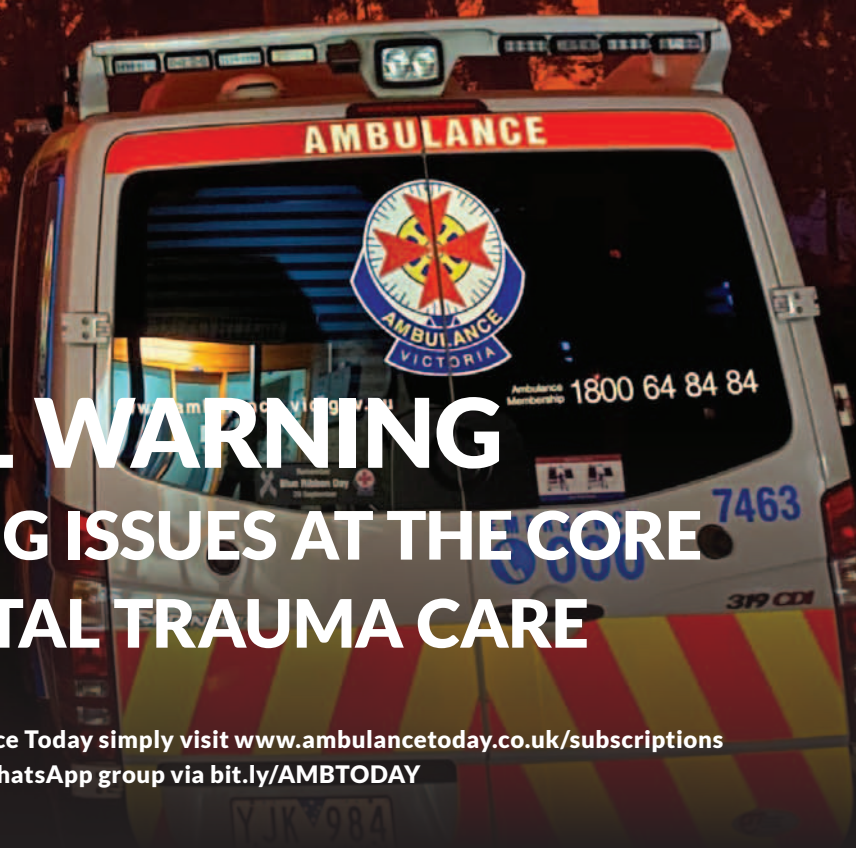
Ambulance TODAY

Spring 2020 - ISSUE 1 | VOLUME 17

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GLOBAL WARNING AND THE BURNING ISSUES AT THE CORE OF PREHOSPITAL TRAUMA CARE

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Medical Rescue NEWS

2020 TRAINING

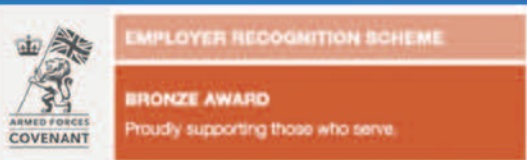
MEDICAL RESCUE LTD HAVE MOVED ON LEAPS AND BOUNDS FROM 2019.

THIS YEAR WE WILL BE LAUNCHING OUR TRAINING DIVISION AFTER SUCCESSFULLY BEING ACREDITED BY QALSAFE AS A CENTRE, AND WE WILL BE DELIVERING FREC 3 & 4 IN ADDITION TO OUR OTHER COURSES INCLUDING CONFINED SPACE LOW TO HIGH RISK.

WE ALSO INTEND TO MOVE PREMESIS TOWARDS THE LATTER PART OF THE YEAR AS WE GROW OUR BUSINESS TO ACCOMMODATE THIS IMPORTANT DIVISION.

DANNY LAVELLE (OUR NEW TRAINING AND COMPLIANCE MANAGER) HAS BEEN TASKED WITH DEVELOPING AND OVERSEEING THIS EXCITING PROJECT.

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Well of Content, Spring of Knowledge



Joe Heneghan
Editor,
Ambulance Today

It is with much excitement that I welcome you all to this first edition of the year for *Ambulance Today*. I'm happy to say that this year has gotten off to a flying start with more genuinely fascinating content in the pipeline than we can probably fit into each edition.

This first edition of the year is largely dedicated to trauma care – as we always like to kick the year off with an edition that our readers can get lost in – but, as ever, it has also evolved into so much more.

Whilst we have some highly intriguing articles on prehospital trauma care which make for riveting reading and which will inevitably excite most into delving much further into the topics they expound upon, I'm thrilled to say that we have a wealth of articles delivering some highly fascinating developments in EMS from around the world in areas outside of trauma care too.

To alight on these first and foremost, I'd like to draw your attention to Grant de Jongh's article on the recent move by the National Police Chiefs Council to use the Health Practice Associates Council (HPA) register as a referral pathway for cases involving non-Paramedic ambulance staff. To understand why this is such an important development and to appreciate what a positive leap forward this is for safeguarding patients, as well as the reputation of the various roles and professions within EMS, I can only implore you to read further but, suffice to say, the mission being undertaken by the HPA should be supported by all those who hold EMS and the Hippocratic ethos it is built upon dear to their hearts.

MSc Paramedic Science Course Leader, Phil Ashwell, from the University of West London details their new Pre-Reg course which was introduced last November. The course has been

thoughtfully tailored with every foundation of its creation carefully considering the many subtle factors which can affect students' learning experiences and should offer some interesting approaches for anyone interested in education and development within EMS.

The Palestine Red Crescent Society has offered a second, deeply motivating interview which, when read in comparison to the first which was published within our previous edition of *Ambulance Today*, offers a deep understanding of the mechanisms of EMS delivery within Palestine and is sure to leave any EMS devotee feeling proud of their chosen vocation. A world away for many of you, this piece still manages to hold a mirror up to you all, shining light on the quietly humble humanitarian paths you have chosen.

And, last but certainly by no means least, I am incredibly proud to present our Deputy Editor's debut article with *Ambulance Today*. Harry Squire has been with us for just over a year now and, for any of you who know our publication well... well, what a year it has been. I can safely say that, without his keen intellect, his rapidly developed understanding of EMS and the psyche that forms it, and his burning passion for honest reporting based upon a proud and ethical respect for media and the service any publication must offer its readership, we would not have been able to pursue half of the illuminating and progressive content which we were able to provide you all with last year.

True to form, he has offered an eye-opening interview with Ambulance Victoria's Chief Executive, Tony Walker, on the difficulties that the recent Australian bushfires have posed to their delivery of EMS and how those difficulties have been met. Using this as an example, he poses a question which all EMS leaders across the Globe, without exception, *must* ask if services are to prepare themselves with foresight for the changes in our environment that lie ahead and which

will inevitably affect how EMS is delivered for many parts of the world. If we do not take stock of the different environments we are bound to and the warning signs they are currently offering, then I fear that the obstacles they will later present will come as a very sudden and unwelcome surprise. It is a discussion I hope to see much more of within the Global EMS community.

But, as much as I would love to take you on a tour of every article within this edition, there is simply too much content and yet not enough space for me to do so. Articles such as Alan Cowley's reflection on the growth of knife crime and penetrating trauma in the field and NAEMT's interview with Dr Stein Bronsky on the vital importance of the Paramedic's understanding of pharmacology will certainly leave you glued to the page. I can safely say that I sat with great interest as I worked through these articles in the composition of this edition and enjoyed them immensely. Not to mention Anna Joval's piece from the Norwegian Red Cross on how bystanders can, and should, be utilised during MCI's for a wealth of practical reasons – this one offers much food for thought and is of great use to anyone, from Operations Directors right down to those working regularly in the field on a daily basis. Its applications are many.

And still, we have so much more from our usual contributors; I really feel guilty that I cannot continue. You'll just have to see for yourselves, but I'm sure you'll gain as much enjoyment in doing so as I did myself. In the meantime, I wish you all a pleasant start to the Spring. If I have noticed one thing so far this year in the compilation of this edition, it's that there are a great number of highly fascinating and innovative discussions taking place around the world in EMS and their exploration seems to promise an interesting year ahead!

Joe Heneghan
Editor,
March 2020



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Pp. 9-11 The Cutting Edge of Knife Crime: Time to Sharpen Up

Alan Cowley offers a collaborative piece detailing the shift in knife crime statistics which has seen

penetrating wounds become common place across a wide range of environments. As such calls no longer take place predominantly in city environments but can instead now be found within a diverse range of settings, Alan et al. offer views on how to support the difficult task of transporting such trauma patients quickly from the scene and possible ways in which such trauma cases can be prevented in the first place.



Pp. 12-13 HPA Register Now Recognised by National Police Chiefs Council

Founder of the HPA, Grant de Jongh explains what the decision by the NPCC to use the HPA register as a referral pathway for cases involving

non-Paramedics means for EMS and why it's such a positive step forward for everyone involved, staff and patients alike.



Pp. 15-17 UWL's New MSc Paramedic Science Pre-Reg Course: The Story So Far

Phil Ashwell, MSc Paramedic Science Course Leader at the University of West London explains the ins and outs of their new pre-reg course which began

last November and why it's such an exciting prospect for students.



Pp. 18-19 Continuing Education and Community-Based Medical Response Are Game Changers When it Comes to Trauma Care

Our usual report from Israel's United Hatzalah discusses the importance

of highly realistic training scenarios for first responders when it comes to Multiple Casualty Incidents. A very interesting one to read in conjunction with the contribution from the Norwegian Red Cross.

Also inside: UNISON offer a stark account of patient violence towards EMS staff but with promising potential for better times ahead on the horizon; Thijs Gras dedicates his usual article to his fallen comrades and friends in a touching message to the Undetected Heroes of EMS; NAEMT carry an engrossing interview with Dr Stein Bronsky on the importance of pharmacology within the field of EMS; IAED discuss the importance of tourniquet use and bleed control within trauma care; and Mike Emmerich offers a usually gripping and informative piece, this time on trauma care within Africa and the true cost of what happens when a shocking 90% of Global injury-related mortality is concentrated within low and medical income. Also inside are our usual Out & About news items from the UK ambulance community and the very latest in Products & Suppliers news.

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DESIGN & Production: L1 Media email: L1media@yahoo.co.uk

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Pp. 24-25 Global Warning for EMS

Deputy Editor, Harry Squire, carries a fascinating interview with Ambulance Victoria's Chief Executive, Tony Walker. Through discussing how Ambulance Victoria met the challenges of deploying effective EMS in the face of the recent Australian bushfires, Harry

and Tony also look at the wider issue of how Global Warming may well be an important factor to consider in preparation for the future longevity and resilience of services if such environmental challenges are to become more commonplace.



Pp. 20-21: Nipping It in the Bud: How Infection Control and Preventative Education Methods Can Make the Difference Between

a Manageable Public Crisis and an Outright Pandemic

MDA delivers their usual update from Israel with a discussion on how infection control and education can go a long way in managing public panic and sudden increased burdens upon the provision of EMS.



Pp. 27-29 Guardians of Gaza: The Humanitarian Efforts of the PRCS Volunteers

Following on from the Palestine Red Crescent Society's first ever feature with us in our last edition, the PRCS

offer a second interview – intended to be compared with their previous contribution in Winter 2019 – which gives a very moving and human account of how EMS is delivered in Palestine.



Pp. 30-33 NO-FEAR: First Responders at the Frontline – Collaborating with the Non-Professionals

Anna Joval of the Norwegian Red Cross discusses the potential of bystanders

during MCIs as sources of aid to be utilised and mobilised and how NorCross' NO-FEAR project aims to teach EMS services the ways in which this can be achieved.

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NHS Staff Survey Stats Show Worrying Level of Violence Towards Ambulance Personnel



Colm Porter
National Ambulance Officer,
UNISON

The recent publication of the NHS Staff Survey painted a stark picture of the kind of environment that ambulance staff are currently working in, but it also provides much food for thought as to how we may be able to approach subtler contributing factors to violence against ambulance staff.

As part of the annual NHS Staff Survey which gathers views and experiences from staff regarding their overall wellbeing within the NHS, the feedback of almost 25,000 NHS ambulance personnel was dutifully recorded.

From this data it was found that within the last 12 months 52.8% of staff in patient-facing roles experienced musculoskeletal problems as a result of work; 52.2% of ambulance staff have felt unwell as a result of work-related stress; and 60.8% have experienced bullying, harassment or abuse from patients and service users.

Of vital importance is the statistic that 52% of ambulance staff with frequent face-to-face contact with patients and the public have experienced violence within the last year. This is significantly higher than the 34% cited by Matt Hancock in his letter to staff on staff violence and significantly higher than the national average in the NHS of 21%.

Assaults can have a catastrophic effect on staff, not only from the physical impact of the injury, but also the long-term effect of the psychological impact. Unsurprisingly, people get traumatised, and it can take many months to recover.

It's not just physical violence—the verbal abuse inflicted on call takers, dispatchers and other staff working in contact centres is often unseen and under reported. This can have similar effects on staff as a physical assault and should be viewed as equally unacceptable

The pressure ambulance services are under cannot be ignored as a key factor of violence against staff. Previous research by UNISON on violence against staff in the wider NHS found that NHS trusts struggling to meet their performance targets were likely to have much higher increases in violence against staff and that NHS trusts struggling with huge financial deficits also witnessed a big rise in the number of reported attacks on staff.

It's no coincidence that in trusts where pressure seems most extreme – where there are huge financial deficits or serious struggles to meet waiting time targets – there have been the steepest rise in the number of attacks. Staff shortages, increased workloads and longer waiting times can all lead to growing frustration and more potentially volatile situations.

There have indeed been some very positive steps taken to address this serious issue. The Assaults on Emergency Workers (Offences) Act 2018 came into force in November 2018 and was a very welcome development.

While the recent joint agreement, which involves NHS England and Improvement and other stakeholders, has underpinned the provisions in the 2018 Act and sets out the standards which victims of these crimes can expect. The commitment to violence reduction laid out by the NHS Long Term/10 Year Plan, published in January 2019, is also undoubtedly a step in the right direction.

Furthermore, the piloting of body worn cameras in the ambulance services has also had a positive impact. The work done by NEAS in this area, and particularly their commitment to involving staff and trade unions in the project, is definitely an approach UNISON would like to see replicated across all services introducing body worn cameras.

However, the introduction of new technology and legislation is not an instant solution to the problem and can never be fully effective in efforts to reduce violence and aggression against staff without a fundamental change in how our services are funded from a political level in the face of such clear links between burdens caused by financial deficit and abuse of staff.

Additionally, we can't help but bemoan that as of April 2017 NHS Protect, the national organisation that was responsible for setting the violence reduction strategy in England, no longer exists.

NHS Protect had wide-ranging responsibilities which played a key role in the fight against violence, from setting the violence and aggression standards contained in the standard NHS Contract to producing annual violence and aggression data.

In their absence ambulance trusts have been left with the difficult task of managing the violence and aggression risk but without the leadership and strategic oversight that comes from a national body.

The safety of ambulance staff needs to be paramount in the NHS and it can never be acceptable to feel that regular assaults or abuse are simply 'part of the job'. This needs to be heard loud and clear from NHS staff and, whilst the NHS Staff goes some way to showing this within its data, uniting the voices of NHS staff across the UK to ensure that this data is acknowledged by those with the power to make positive changes is a role that UNISON takes pride in. As these cases continue to rise it would appear to be more vital than ever that you ensure your voice is heard in this.

Colm welcomes feedback from ambulance staff and can be contacted at:
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The Cutting Edge of Knife Crime: Time to Sharpen Up



From: Cowley A, Durham M, Aldred D, Crabb R, Crouch P, Heywood A, McBride A, Williams J, Lyon R. (2019) 'Presence of a pre-hospital enhanced care team reduces on scene time and improves triage compliance for stab trauma'. Scan J Trauma Res Emerg Med 27(86).

Penetrating trauma is on the rise, everywhere (Allen et al., 2019). Once the preserve of the hardened inner-city paramedic, it has crept out to every service in every area and can just as easily happen in the quaint village down the road, as the deserted back street behind a run-down metropolitan tower block. Penetrating trauma is sly. It catches us at our most vulnerable; in the early hours of the night, swamping us with stimuli – darkness, flashing lights, crowds, adrenalised bystanders and patients, police, firearms units.

We hear the well-known mantra of penetrating trauma in our heads, “5 minutes and leave, 5 minutes and leave”, but a big part of us just wants to disregard that and for it all to be fine. The patient ‘seems’ ok, the wound ‘looks’ ok, can I see the wound base? Bearing in mind it has taken me 5 minutes to write this, is it really fair to expect ambulance staff to take control of this situation so quickly, bearing in mind the infrequency with which it is encountered (Henderson et al., 2019)? In reality, what is the length of time we are spending on scene?

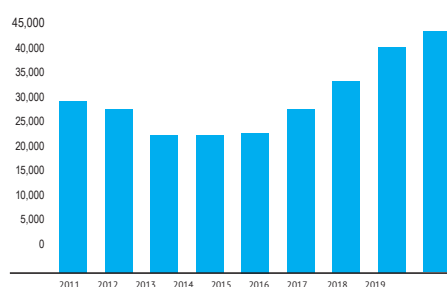


Figure: Total knife crime in England & Wales (excludes Greater Manchester) [Allen et al. 2019]

These are questions we wanted to answer when starting our study (Cowley et al., 2019). As a group of specialist paramedics, we felt ‘anecdotally’ that when we arrived at scene, there was a general apathy towards scene times. So, we looked in to it. We found that, in our trust, scene times in central stabbings were about 29 minutes with no specialist involvement, and dropped to 19 minutes with a specialist on scene – a reduction of 38%. Moreover, the triage to a major trauma centre improved from 37% to 81%. Now, the study isn’t perfect and we should be cautious in transferring the findings to other trusts with different staffing and trauma models, but it certainly gives food for thought. Why did our data show such a strong tendency for non-specialists to remain longer on scene?

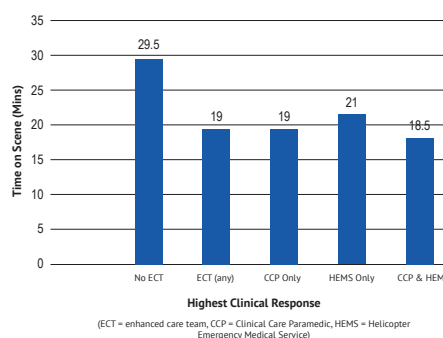


Figure: Median total scene time in stab trauma (from Cowley et al., 2019)

In central penetrating trauma, where the patient is not in cardiac arrest, there is little that can be done in the pre-hospital environment, other than expose the patient, cover wounds (either ‘bleeding’ or ‘sucking’) and get moving. We must resist the temptation to take lots of observations, to do a 12 lead ECG or ensure all AMPLE information is noted. It is impossible



Applying pressure to a penetrating wound

to gauge the depth and severity of any wound from its external appearance and, given the general demographic of patient and their ability to compensate, they really need to be with a surgeon at a major trauma centre, rather than on the street or the back of our ambulance. So why aren’t we doing it and what can be done to improve outcomes and reduce deaths from knife crime?

We propose that approach should be three-fold, and none are easy. Firstly, we need to continue to educate ourselves. At the moment it seems clear that the presence of a specialist improves the situation, so tasking models should ensure they continue to be dispatched wherever possible. In addition, we need to continue to spread the message of minimal interventions and reduced scene times – empowering our staff to do what the patient needs, and take them where they need to go, rather than the ‘complete obs and paperwork’ approach that is used on most incidents. We must continue to train harder or, perhaps, just more efficiently. As technology improves it may become easier and easier to fully immerse our staff in training incidents – certainly the improved accessibility

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and sophistication of Virtual Reality systems may mean that the non-technical aspects of these incidents, which are normally so hard to recreate, become that bit more reproducible. However, this can only be one part of it – there is simply not the exposure or training capacity for non-specialists in these highly dynamic situations to expect perfect performance every time. That is not fair.

So, perhaps a more 'out of the box' approach is needed? Some interesting evidence emerged last year showing that victims of penetrating trauma that presented at hospital by alternative means (e.g. private vehicle, taxi, police car) had a significantly lower likelihood of death than those brought in by ambulance (Wandling et al., 2018). Admittedly, it's not directly transferrable due to the setting of the study, but there are not infrequent reports of patients deteriorating in taxis and police cars whilst waiting for an ambulance, when a hospital is close by. It would need a step change in attitudes surrounding the 999 culture, but police medics are an increasing part of their service and so it is not beyond the realms of possibility to develop a system where they are the conveying resource when an ambulance is not on scene.

Finally, the most obvious one is to stop people stabbing each other in the first place. The Serious Violence Strategy was announced almost two years ago by the Home Secretary and, whilst



Example of a general bleed control kit specialised for stab and gunshot wounds

it will take time to assess its impact, the pessimists amongst us will feel it is unlikely to solve the problem. The vast majority of knife injuries are due to crime, drugs, mental health or, most likely, a combination of all three. To suggest these are easily addressed would be optimistic to the point of naive, but people are trying and perhaps one of the most interesting, and promising interventions right now is the work of organisations like Redthread (many others are available) who, amongst other work, target the victims of knife crime when at their most 'vulnerable', often when lying in the resuscitation room with an unclear prognosis. Their current reach is across hospitals in three of our major cities but it would be good to think that, in time,

this reach will grow and perhaps they could move their focus from the resus room to the ambulance?

In summary, penetrating trauma kills quickly and subtly and, like so much serious crime, affects many more people than just the 'patient'. It will occur more and more in the foreseeable future. If you haven't encountered it yet, you will. If you do encounter it, you will see it more often. We need to be ready; we need to empower ourselves to do the bare minimum and quickly move to an appropriate hospital. Perhaps, most of all, we need to continue to develop the wider system to minimise the impact and, eventually, put the numbers back on a downward trend.



Simulated SCAS trauma scene

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The Health Practice Associates Council's Register Now Recognised by the National Police Chiefs Council



By Grant de Jongh, Chief Executive of the Health Practice Associates CIC

The Health Practice Associates Council (the HPA) has been buoyed by the recognition of the National Police Chiefs Council (NPCC) as a body that will now be signposted to as their referral pathway for non Paramedic ambulance staff.

This will also be sought to be officially included in the Common Law Disclosure Process which applies where the Police consider public protection or safety is at risk, and employers and/or registered bodies are notified.

All Police Forces in England will now notify the HPA when a Disclosure applies following the Referral Pathway illustrated in this article.

This confers the HPA with the same status as the Health and Care Professions Council (HCPC), the Nursing and Midwife Council (NMC), and the General Medical Council (GMC).

More broadly, employers, work colleagues and members of the public can raise a concern with the HPA and registrants can also self-refer.

Why Is This Important?

Unlike Paramedics, other ambulance staff have no equivalent body to the HCPC to whom they are accountable – until now, albeit the HPA register is voluntary.

It's estimated that there are some 10,000 emergency patient contacts per

day involving non-registered ambulance staff, and this figure doesn't include Community/First Responders.

No figures are available for non-Emergency Patient Transport Services daily patient contacts but it's likely to be similar, given the investment the NHS makes in this area.

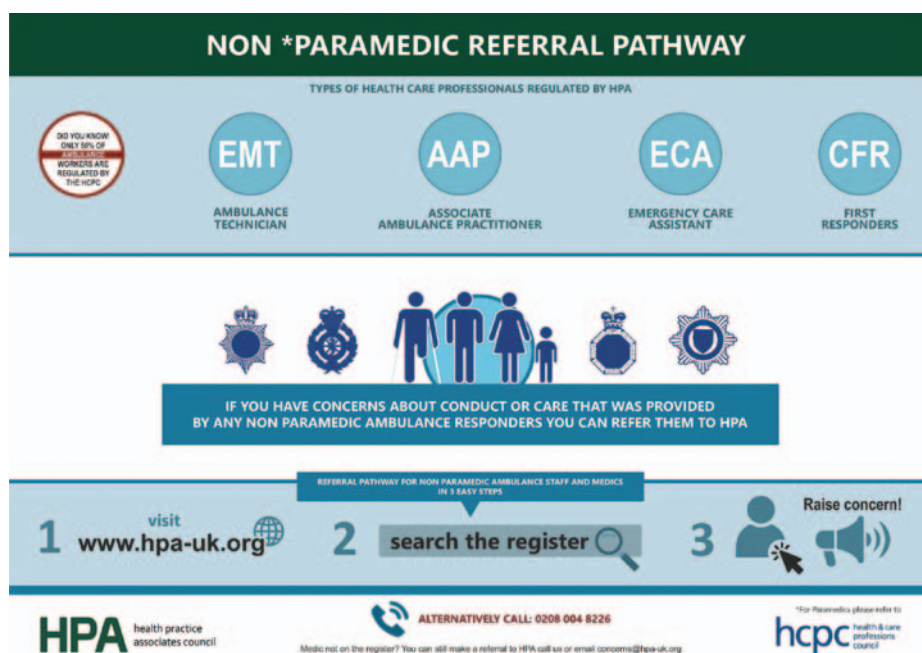
That's 10,000 patient contacts per day by staff whose conduct and professional practice rests somewhere between their employer, Care Quality Commission (CQC) and, in rare cases, the Courts. The current situation is that, while the majority of non-regulated ambulance staff are safe practicing clinicians, some have been found not to have provided optimum care, mal-practiced or breached their contract of employment. The ultimate sanction available to employers is dismissal, without an option to refer them to a regulatory body in order to protect the public in the future.

These staff invariably move on to another unsuspecting employer (or event organiser) and unless the reason for dismissal warrants inclusion on a criminal record database, the new employer is unlikely to be aware of their true employment or care-related history. For providers using Bank staff, the risk increases significantly, particularly for Ambulance Technician and Emergency Care Assistant roles.

The HPA has 4 primary grades for ambulance staff, from First Responder to Ambulance Technician, each with a scope of practice and expectation. All



The HPA Identity Card



registrants are issued with a driver's licence style ID card, a Pin number and access to their online national profile.

As with the HCPC, those registering with the HPA agree for their details to be made public; confirming that they're on the Register, at what grade and whether there are any restrictions or concerns on their profile. This enables employers, the public and other stakeholders to seek assurance that a registrant has kept their registration current, in good standing with the HPA, and, for how long.

The Impact of the HPA

Whilst registering with the HPA is voluntary, it's strength centres on the premise that if you have nothing to hide and have no issue with being held accountable for your actions, or inactions, then registering confirms your commitment to patient standards and your own practice.

Worryingly, there is evidence that Paramedics who have been struck-off, or suspended by the HCPC, 'downgrade' to Technician level to continue practicing, despite being considered a risk to patients. In some instances, starting their own company and offering clinical services to event organisers or similar. This 'hiding in plain sight' presents a very real risk to patients.

This risk is recognised by the Independent Ambulance Association (IAA), whose Directors agreed to recommend employer members sign-up for access to the HPA's organisation portal as part of their clinical governance arrangements and to encourage their staff to register. This strengthens recruitment and staff review processes, linking them to the safeguarding hub which provides real time alerts regarding registered staff members to participating employers and enabling them to act quickly to reduce further risk to their patients.

Commenting, Alan Howson (Executive Chairman at the IAA) said: *"In making their decision, Directors recognised the added value the HPA brings to reducing the risk to patients by those who really shouldn't be there; also, that staff are qualified to the level they claim to be."*

There should be no hiding place in the independent ambulance sector for those who pose such a risk, or for 'Walter Mitty's' who've done a 5-day EMT course and believe they're not far off being a Paramedic, or worse, present with fake certificates. Our position is very clear: this is about ensuring that the best interests of the patients are centre and front, and mitigating against anything that undermines this."

More Than Just a Register

The HPA has a Governing Council that oversees the standards and expectations of registrants (in very similar fashion to the HCPC) via

- Scopes of practice for all the grades
- A Code of Conduct
- Evidence of Continual Professional Development for all registered grades
- A Cause for Concern and Complaints handling procedure
- Sanctions and supervision orders and the ability to 'strike-off' in extreme cases

At a recent conference of the NPCC the issue of non-registered ambulance staff was immediately recognised and welcomed by the facility to refer individuals to the HPA. As well as this, the CQC is also considering 'signposting' the HPA in the relevant professional standards. Both bodies clearly recognise the value the HPA brings to patients, clinicians and service providers alike.

Furthermore, the HPA is also working with the Professional Standards Authority toward becoming an accredited register and NHS Ambulance Services have invited representatives of the Council to discuss how they can potentially 'work with the register' to help improve patient safety.

And, in addition to all this, another organisation with a shared focus on clinical practice excellence which is working closely with the HPA is CPDme, who are currently working upon integrating their services for HPA registrants.

It is our belief that best practice and the safety of patients should be safeguarded as much as possible and that once methods of attaining this have been understood we have a moral and ethical obligation to pursue and fulfil them— an obligation which is based upon the idea of compassion towards the patient which forms the very foundation of the Hippocratic Oath. It is this safeguarding which we, the HPA, aim to provide.

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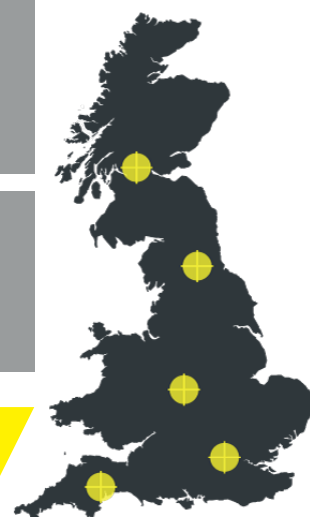
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University of West London's New MSc Paramedic Science Pre-Reg Course: The Story So Far



By Phil Ashwell MA (Ed) BSc (Hons) FHEA PgCert CODP HCPC, Course Leader MSc Paramedic Science, University of West London

The University of West London's (UWL) new MSc Paramedic Science pre-reg course commenced on 4th November 2019 and is being delivered in partnership with the London Ambulance Service NHS Trust (LAS). The philosophy of this course embodies UWL's Learning, Teaching and Assessment Strategy (2018) and has been designed to provide a student centred, stimulating and challenging learning experience, which emphasises empowerment, engagement, empathy and mutual respect.

The MSc Paramedic Science course is designed to recognise prior learning and experience whilst developing your confidence as you progress through years one and two (Level 7). It helps students build upon their ability to be an independent, reflective learner, which obviously is essential for further

lifelong learning, as well as continuing professional development (CPD) and maintenance of competence.

This is achieved through different styles of learning within the University and through work-based experience in practice placements. Authenticity is achieved by situating theoretical, practical and experiential learning in inclusive real-life and simulated environments, using the reality of ambulance deployment and working closely with ambulance crews to explore real-time, contemporary problems. Such an in-depth and authentic experience facilitates the acquisition of new knowledge and skills, critical thinking and contextual flexibility.

The main aims of the new MSc Paramedic Science pre-reg course are to enable students to meet the Health and Care Profession Council (HCPC) Standards of Proficiency – Paramedics (2014) and to support them in achieving a Masters level qualification. Upon

successful completion, students will then be eligible to apply to the HCPC for registration as a Paramedic.

The course aims to develop Paramedics who demonstrate:

- The ability to provide safe, compassionate, evidence-based care to patients and carers in out of hospital, pre-hospital and emergency situations
- An in-depth understanding of the scientific and psycho-social basis of paramedic practice and its application to the assessment and management of patients, across the lifespan, in a range of out of hospital, pre-hospital and dynamic emergency situations
- The knowledge, skills and behaviours that underpin ethical practice and compliance with the HCPC Standards of conduct, performance and ethics (2016)
- Reflective, critical appraisal and evaluation skills to ensure that the care delivered is acceptable and effective
- High quality interpersonal and communication skills to facilitate effective team-working and collaboration in multi-professional and multi-agency out of hospital environments
- In-depth, specialist knowledge, which will prepare for future leadership roles in a rapidly evolving profession
- An understanding of implementation science and improvement methods and the clinical leadership skills to influence practice/service improvement
- A commitment to lifelong learning and continuing professional development.

LAS are the busiest emergency ambulance service in the UK and are the only London-wide NHS Trust, serving more than eight million people



who live and work in the London area. Their services operate over an area of approximately 620 square miles, from Heathrow in the West to Upminster in the East, and from Enfield in the North to Purley in the South.

Working with the police and the fire service, they are prepared for dealing with large-scale or major incidents in the capital, with around 5,000 staff working across a wide range of roles based in 70 ambulance stations and corporate sites.

The latest Care Quality Commission (CQC) inspection report (March 2018) saw LAS taken out of 'special measures' and rates the service as 'good' overall.

Capacity is available within LAS to support the ambulance placement element of this new MSc Paramedic Science pre-reg course. In 2017 the LAS Board supported significant expansion of Paramedic education both within the LAS and within existing and new partner Universities. Acquiring the necessary resources and further developing the capacity to support this expansion was achieved by significantly increasing the number of qualified Paramedics who are prepared to support students in practice.

Known as Peds (Practice Educators), these paramedics represent the commitment which LAS holds towards the safety and support of both learners and service users (with a proven track-record of practice-based education in the operational setting linked to

University provision since 2005). As part of their teaching training, LAS PEDs are fully briefed on how to integrate learners into real-life scenarios to ensure the safety of both parties.

All LAS Paramedics now follow a structured programme of development from the point of qualification or employment within the Trust. This includes attendance and completion of a course approved by the University of Greenwich to prepare all LAS Paramedics to undertake the PEd role. All PEDs who support students from the in-house or the university courses in London are prepared to this consistent standard.

Education and learning within a Higher Education Institute (HEI) setting promotes a team approach to learning, which further reflects the nature of multi-professional clinical practice, (a core element of the expectations of a registered Paramedic).

A key aim of HEI programmes is to develop, alongside the profession-specific skills, a reflective practitioner with an understanding of broad principles of healthcare which can in turn be applied in new and evolving roles (Health and Care Professions Council [HCPC] 2016; C. Zhang, Thompson, & Miller, 2011).

To be successful and to have the right to apply for registration with the HCPC after the two-year programme of study the student will have to have completed a minimum of 1,640 practice placement hours in various clinical specialties—all units of study which equate to 1,800 hours of theory, as well as a completed Practice Assessment Document (PAD).

At the culmination of their education the Paramedic registrant should be able to evaluate evidence, arguments and assumptions, reaching sound judgements, and effectively communicating within their sphere and evolving scope of practice. Trigwell and Prosser (1996) argue that the skills, processes and attitudes fundamental to this type of learning are usually learned from the acquisition, integration and critical application of skills and knowledge gained from the totality of the educational experience a view also supported by Brennan and Little, (2016).



The learning process, once initiated, aims to develop both the academic and clinical settings, where progression from simple concept acquisition to engaging in more complex clinical situations is usually demonstrated both in terms of techniques and problem solving (Putting Work Based Learning into Practice, 2007).

Therefore, available placements must be well organised and congruent with the student's level and needs in a fair, safe and appropriate manner in order to maximise this resource. A study conducted by Hart and Rotem (1994) identified that there are six factors that describe and categorise a clinical learning environment and the students learning potential. This study was designed to elicit description of the clinical learning environment and participant learning experience with the six areas of importance being: autonomy and recognition; role clarity, satisfaction, quality, support and opportunities. These results are consistent with a similar study conducted by Papp, Markkkanen, and Von Bonsdorff (2003) who found that student nurses and medical students identify that good clinical learning requires five necessary elements: appreciation, support, quality, patient care and self-directedness. Papp et al. (2003) identify that students relate to the quality of clinical placement learning opportunities and that the ability to learn on placement is consistent but that, in addition, participants of both studies further identified that self-directedness and autonomy are also important factors.



Therefore the MSc Paramedic Science pre-reg at the UWL, albeit still in its infancy, has been accepted well into the London healthcare sector. This is a full-time course which is self-funded. Many people have had an input into putting the course together hence the course has a solid foundation. Following the first few weeks of the course, the feedback has come back as excellent. Feedback consisted of three questions, with each answer taking the form of a numerical ranking from 0 – 10, with 10 being excellent. There was one student who was not well on the day the feedback was given. So, out of a possible score of 270, we scored 254 for student satisfaction. This gives us a percentage of 94.07% satisfaction so far. The level and standard of teaching has been fed back as excellent. Like all courses, the course will need some tweaks. We will do this subject to feedback from the students. The students have an enormous amount of

support if they should need it and also time to be able to study. The students will benefit from the Simulation Centre to be able to practice elements of care before they are out in an ambulance. They will be exposed to stressful situations within the Simulation Centre to inoculate them against this stress. At this point they will be in control of

their emotions and can concentrate on their care to the patient.

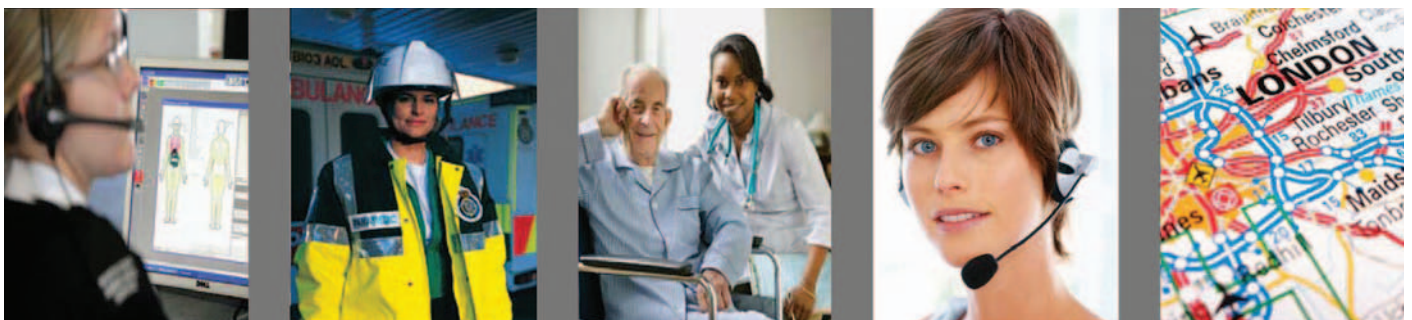
So, the story goes on. There will be a full write up on this trailblazing course at the end of the first 2 years as the first cohort graduate. For the next course in 2021 I would be expecting the full 30 students enrolling.

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Continuing Education and Community-Based Medical Response Are Game Changers When it Comes to Trauma Care



By Raphael Poch, International Media Spokesperson, United Hatzalah

When dealing with medical trauma as a first responder, speed is of the utmost importance. Performing field assessments and triage, stopping a bleed and packing a wound – as well as proper scene management – are all essential and need to be implemented as fast as possible. United Hatzalah's volunteers excel at arriving on scene and stabilizing patients within three minutes of the emergency call being made, on average. Once they arrive, they begin triage and immediate treatment while radioing back to dispatch and giving a detailed report of what exactly is occurring at the scene.

Trauma scenes, especially mass casualty incidents (MCI's), can be bedlam – especially in a country that sees as many terror and rocket attacks as Israel does. More importantly, as Israel has two national EMS providers, MCIs can

often become scenes where a mass of first responders arrive and create a chaos of their own at the scene.

Most often, MCIs or even singular incidents of trauma will receive multiple first responders as well as multiple ambulances at the scene, each one carrying anywhere between 1 and 4 responders onboard. All of these first responders need to be directed to the patients who need assistance in a timely and organized manner.

Therefore, scene management often falls upon the very first responder who arrives at the scene until a person of higher medical rank is picked as scene manager.

It is because of this operational protocol that every first responder in United Hatzalah is taught from the beginning of their training how to properly manage a scene, even a mass casualty incident. The organization's extensive training courses are taught using the protocols set forth by the American Heart Association, the NREMT, and Israel's Ministry of Health.

United Hatzalah serves as the Israeli training partner for both the AHA and the NREMT and each volunteer responder is taught how to be the scene manager at any scene, be it an individual trauma or an MCI.

United Hatzalah serves as Israel's largest, all-volunteer, and free, EMS organization. As such, it holds annual re-training courses that are mandatory for all 6,000 + volunteers that belong to its ranks and are on call 24/7/365 to save lives in Israel. These refresher courses have a dedicated segment on trauma protocols and every year different issues are put in focus in order to hone the skills of the responders. In 2019, the organization focused on wound packing as well as the proper use of occlusive dressings such as the Asherman chest seal.

But traumatic scenarios require more than lectures in the classroom. In order to make sure that volunteers don't freeze in the field when confronted with a chaotic trauma scene, United Hatzalah holds training drills throughout the country. These drills mimicking real-life trauma scenes, including actors who wear makeup and are instructed to scream and create havoc, as well as actors who are instructed to play the part of terrorists, arsonists, thieves, and injured patients – all in an effort to make the drill as realistic as possible for the volunteers. Often times the drills will include explosions, fireworks, sirens, screaming bystanders, patients mimicking emotional or psychological shock, in addition to other forces such as the police, fire department, military, Home Front Command, local authorities, and even hospital staff.



Carmiel joint MCI training incident



Avi Marcus treating a patient during an MCI

Chief Paramedic of United Hatzalah Avi Marcus, who is in charge of the quality of education received by the volunteers, and the resulting quality of care given by them to the patients they serve spoke about why continuous re-education is so important:

“Our volunteers need to be as ready as possible for real-life scenarios because they are going to face the havoc of MCIs in real life. It is all fine and good to cognitively know what to do when a scene turns chaotic but if our volunteers don’t have the knowledge in their hands to do what they know in their heads then they won’t be effective. If they have never experienced high-stress situations while they are trying to treat a patient, then they also cannot be effective. We provide them with as much experience as possible while still taking into account that they are volunteers so that they will be ready when called upon. It is one thing to arrive quickly, but it takes experience and knowing how to operate in a chaotic scene to be proficient in saving a life. Speed is important only if it is followed up with the highest level of care that is possible and that is something that we strive to achieve every day while training and retraining our volunteers in the most up-to-date protocols with regards to trauma care.”

“Community-based first responders are a vital element in Israel’s EMS algorithm,” said President and Founder of United Hatzalah, Eli Beer. “Ambulances often take far too long to arrive in situations when minutes

make the difference between life and death. When I volunteered in an ambulance at the age of 16, I begged the staff who ran the operation to allow me to be a first responder in my neighborhood. I had the training, I had the knowledge and experience of what to do; all I needed was the information to know that a medical emergency was happening in my neighborhood and I could respond to save a life. So, I asked for the information and they refused. They said that the idea of first responders wasn’t what was needed. Now some 30 years later, not only do I run an organization of more than 6,000 first responders, but the national ambulance organization has even copied our model of dispatching first responders to medical emergencies so that help can arrive before the ambulances. I take that as one of the biggest compliments that can exist. It shows just how vital a role these community-based volunteer first responders serve. This holds especially true for trauma cases.”



Gavriel and Liat Struck with Leah and her husband Trevor

To illustrate this point Eli recounted a story that occurred last April. A young mother named Leah was out at a popular travel spot during the Passover holiday break with her family. Her husband was driving the family car and the children were in the back seat. There was a traffic jam outside of the parking lot and Leah and her family were trying to exit. Leah got out of the car to help direct traffic when the car in front of them hit the gas pedal.

By accident, the driver had the car in reverse and ran into Leah, crushing her against her own car. Leah screamed and the frightened driver switched gears, moving forward and causing Leah to collapse as a result. Both of her legs were crushed and she was hemorrhaging blood from one of her femoral arteries. Luckily for Leah and her family, another family was nearby and heard the impact and the scream. By a stroke of luck, both the husband and wife were volunteer EMTs and, while the husband rushed over to treat Leah, the wife ran for the medical bag that the family kept in the trunk of their car at all times.

The husband, volunteer EMT Gavriel Struck, saw Leah’s condition and her arterial bleed and immediately applied direct pressure to her leg, slowing the blood flow. Once his wife, Liat, arrived with the medical kit a moment later, Gavriel applied a CAT tourniquet to Leah’s leg and managed to stop the blood flow completely. The duo then began to treat her other injuries. Due to the traffic congestion at the location on that fateful day almost a year ago, the ambulance took an extremely long time in arriving. Without this immediate intervention, Leah would have died. Instead, she is at once again at home among her loving family, after months of rehabilitation.

This is just one example of how volunteer first responders who are on call at all times –people who come from the community and provide EMS care wherever they happen to be – are so essential. They create a flashmob of emergency medics, saving countless lives on a daily basis. When it comes to trauma, minutes matter. Seconds matter. Those minutes and seconds are saved by having an immediate response coming from within the community to provide expert medical care for the community. If we instate this system in enough places, we can save millions of lives across the globe.

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Nipping It In the Bud: How Infection Control and Preventative Education Methods Can Make the Difference Between A Manageable Public Crisis and An Outright Pandemic

Magen David Adom has recently been coordinating with the Health Ministry, the Israeli government and all other relevant authorities who are dealing with the recent coronavirus pandemic and, in doing so, have been utilising every bit of their expertise in infection control.

Under the guidelines of the Ministry of Health, Magen David Adom began by opening a special hotline focusing on treating people suspected of contracting coronavirus (COVID-19). This allowed them to closely monitor and track the spread of suspected cases of the virus whilst also going some way to keeping the public calm and showing them that there is no cause for alarm as proper measures of care are in place.

Since the opening of the hotline and at the time of publication, more than 15,000 citizen inquiries have been received at Magen David Adom's 101 Emergency Call Center regarding

coronavirus. However, it must be made clear that most of these were from concerned citizens who actually revealed no symptoms of the virus at all.

Anyone suspected of coming into contact with the virus is advised to call the hotline where paramedics and other health professionals who field the emergency calls are then joined by an on-call doctor or nurse who goes on to decide how each case should proceed and whether medical care is needed.

One of the most primary points of contact is a dedicated Health Ministry stand, operated 24/7 by MDA, at Ben Gurion airport which has been in place since the beginning of February this year.

The stand checks passengers arriving from China as well as those who have come into contact with individuals who have recently visited the country.

The efforts made by MDA and the Health Ministry in educating the public and in further containing suspected and verified cases of the virus have led to a number of home quarantines. Volunteer paramedics from MDA visit the homes – in specialized protective clothing – and obtain mucosal samples which are then taken to a laboratory in the center of the country for further testing.

More than 145 of Magen David Adom's volunteers have undergone dedicated training on how to collect samples from the patients in order to deny the presence of coronavirus. As part of the training, paramedics practiced taking the patient's samples while staying fully protected against infection.



MDA paramedic with airtight container used for transporting mucosal samples

The medics and paramedics in MDA's 101 Emergency Call Center were also trained to question and manage the cases and Magen David Adom has developed a special system where, among other things, a video call with the patient can be made.

In case an urgent and life-saving evacuation is needed, requiring hospitalisation of a patient suspected of being infected with coronavirus, MDA EMTs will use an insulated stretcher that allows patient evacuation without the risk of further contagion.

So far, more than 30 samples have been taken and it should be emphasized that, up until now, no positive results have been recorded in the country, except for individuals of a special case who returned from a cruise ship in Japan.

MDA paramedic Fadi Dekaidok, who has taken a few mucosal samples from citizens quarantined within their homes, went on to explain: "Before I enter the home I contact the patient and their family to let them know that I will be arriving and what is likely to happen. I am doing this because it



The dedicated 24-7 coronavirus testing stand at Ben Gurion airport

Focus on Infection Control & Preventative Measures with MDA



MDA director General, Eli Bin, views specialised insulated stretcher

is a complicated situation, requiring a certain amount of reassurance, just the way we were trained. As an MDA paramedic, you find yourself in a complex situation. I walk into the patient's home for a few minutes, wearing a full protective suit in order to perform the test and immediately leave. The specimen goes to the lab for testing in an airtight box. I hope these

people are healthy and that tests will be negative. “

MDA Director general, Eli Bin, stated: “We took the task very seriously and are dealing with it effectively in parallel with MDA's routine activities. On average, 6,500 calls are received each day in MDA's 101 Emergency Dispatch Center, and we have the ability to



MDA paramedics intercepting passengers suspected of contact with the virus returning from South Korea

handle even greater loads, as is the case nowadays, where close to 9,000 calls are being answered daily.”

In cases such as these, sometimes a response which shows the public that measures and precautions are in place to guarantee their safety go a long way in decreasing levels of public panic and limit the additional burden placed upon emergency services which would undoubtedly be higher if such measures were not in place.

Add to this the ability to closely track suspected and confirmed cases of viruses and other contagions and the importance of laying a strong foundation for infection control based upon public outreach and education becomes immediately apparent.

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05



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07



Sept - Oct
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24th Sept

Skydive in Salisbury
4th Oct

February

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get involved with
payroll giving

02



May

Blue Light Stair Run
Challenge
9th May

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25th May

04



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community fundraising.
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06



November

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08



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The Undetected Heroes

By Thijs Gras



We went through a strange year last year with our service; within a couple of months no less than seven colleagues died – one even while in the UK. Some were already pensioners, suffering from diseases you know you will die from, although one of them met an unexpected end; some others were in the middle of their active life as ambulance staff members. Within their ranks, we also had colleagues who were unable to do their work because of a disease (they suffered from cancer and ALS) and another who passed was totally unexpected.

This last colleague died in the UK while doing a bicycle tour with other ambulance colleagues. He was only 44, very sportive and a very active biker, but when he collapsed on his bike in the middle of the hills in the North East part of the UK, his colleagues immediately knew that something was very wrong and they started CPR – what else can you do when you are in the middle of nowhere? They kept on doing this until the HEMS-helicopter landed. In the hospital he still had (or maybe one should say, only) small wave VF and it was not long until the doctors decided to stop because it was no use. The UK ambulance colleagues were extremely helpful in bringing the Dutch colleagues to the hospital and solving all sorts of other practical problems.



This helps in dealing with the big blow. The funeral was very emotional; he had a wife and two very young children. His body was transported in an ambulance and a massive row of colleagues paid their last respects to him. Very impressive indeed.

The other colleague I would wish to commemorate in this contribution was also young, only 53. Declan Heneghan, the former Editor of this magazine, who also passed away unexpectedly in November 2018 and Joe Heneghan, the present editor, both met this gentleman during their numerous visits to Amsterdam. He too was far too young to meet his maker. After battling his way through getting over cancer, he was able to get back to work, where he found a lot of satisfaction in helping people in need directly. Unfortunately the cancer came back and this time he could not overcome it. Unfair, one would say, but I was very deeply impressed by the way he carried his cross: 'with patience' is not the right expression because it is too passive. He had accepted his fate, but he had not submitted to it. He and his fate were equals although the outcome was inevitable. During his last period, he was nursed by a few intimate colleagues. He was an amazing colleague and a good friend.

Now as an ambulance man or woman, one knows, maybe more than others, that there is but one inevitable thing in life and that is to die. But still, when we meet Death within our own ranks, it is different. Different from family (although some colleagues feel like family), different from friends (although

we may have friends among our colleagues), different from our patients. One can see this in the reactions of the colleagues; some create memorial spaces or keep pictures of the deceased in the station, so they are not forgotten. I have rarely seen this in banks, offices, factories or even hospitals. Is it because we have a personalised approach? I think a very large part of the explanation is that in the ambulance service we work intimately together, as a team. This adds to the special relationship you tend to have with a colleague.

Of course it is not the same with everybody – there are colleagues you love to work with, others with whom working is fine and even some who can make your shift very long. But no matter who your colleague is, when he or she passes away, it hits you hard. It confronts you with your own finitude.



Disbelief, not able to find words, anger, questions such as 'why he, or she'? How can we give a meaning to this death? Is there one? The great plan of God Almighty, whoever this may be? Or is it just coincidence or bad luck? How can we find consolation? For us life goes on, but I look to my deceased colleagues as the undetected heroes. They did their bit in our society, for our society. I pay them my deepest respect.

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Global Warning for EMS

Tony Walker Ambulance Victoria C.E.O.



As the world looked on in disbelief at the devastating Australian bushfires earlier this year, the Emergency Response teams were working day and night to reduce casualties amidst extremely challenging circumstances. Tony Walker, CEO at Ambulance Victoria, gives us an insight into what effects the fires had on the Australian Ambulance Services and how the effects of climate change are shaping Ambulance Victoria's response systems.

Harry Squire (H.S): Tony, working within EMS can be challenging at the best of times. How did the bushfires in Australia effect the ambulance service?

Tony Walker (T.W): The scale and intensity of the recent bushfires in Victoria was unprecedented, and their impact on our people and operations significant. Ambulance Victoria's Emergency Operations Centre co-ordinated a state-wide ambulance response.



Outside of the Mallacoota branch

The fires burned an area equivalent to two thirds of the UK. Entire towns were lost. Smoke turned day into night. The remoteness of some impacted communities meant our teams were managing a challenging logistical and operational environment on a daily basis.

We had local crews in the fire-affected areas and, as need increased, dispatched extra paramedics to these

areas where they worked alongside government-funded medical officers and an Australian Defence Force medical team to ensure we had adequate coverage on the ground.

We were heavily involved in the relocation of vulnerable community members from local hospitals and aged care facilities, and as people were being evacuated by the Navy we provided the facilities of our Air Ambulance base back in Melbourne.

As smoke from the fires blanketed our larger cities and air quality plummeted to hazardous levels, we saw a 51 percent spike in calls for help for breathing problems in one night. Many of those patients were taken to hospital, putting enormous strain on emergency departments.

Ensuring the safety of our staff was paramount. A number of ambulance crews were isolated in their communities, and there were other areas in which we couldn't respond to emergency calls because fires made them inaccessible. In the course of caring for their communities, some of our people lost their own families' homes to the fires.



Ambulance and the burnt Colac sign



Focus on Australian Bushfires

I've since spent time in some of the worst hit parts of Victoria, including the coastal town of Mallacoota where you saw in media reports the thousands of holiday makers evacuated to the beach. I spoke to many of our people who have been at the heart of emergency and recovery efforts. Particularly for firefighters, most of whom are volunteers, but also for my people, it's been a long and difficult summer. And I do feel a deep personal obligation to care for them. We created a special Bushfire Support package to make available extra psychological support services and financial relief. Over 200 staff have utilised the scheme.

H.S: Bushfires in Australia clearly aren't anything new, and it does seem to me like the response was well orchestrated and efficient, however, with extreme weather cases like this seemingly becoming more frequent, are you worried for the future?

T.W: There's no question that climate change-induced extreme weather events are becoming more frequent and more intense. The science has been forecasting this for three decades.

Personally, of course I am concerned for the world my generation is leaving to my children. My daughter Lucy is only four years old. I am grandfather to two-year-old Ella, and have another grandchild on the way. I think this summer's fires sheeted home to most Australians the impact of a warming world in a way that melting glaciers and stranded polar bears had not.

At Ambulance Victoria, our vision is to transition over the next five years to 100% renewable energy, reducing our



Ambulance with the sun in background showing smoke

emissions by 27%. As you'd anticipate, carbon emissions from our fleet are a significant contributor to our carbon footprint, but we are not shying away from that challenge.

H.S: It's a good point, I think we are all guilty at some level of feeling far-removed from the impacts of climate change, but when it hits on a personal level — it hits hard. Are the Australian ambulance services prepared for another event like this? And do you think any lessons have been learned from this year?

T.W: Extreme heat, thunderstorm asthma, prolonged drought, fires, floods — extreme weather events are coming down the road to challenge and change us at Ambulance Victoria.



Paramedics at Mallacoota

Emergency services here learned a lot from the Black Saturday fires in 2009 when 173 people perished. As a consequence, this summer many lives were saved thanks to the public's and emergency services' greater understanding of the threat level and how to respond.

We learned a lot in 2016 when we experienced the world's largest and most catastrophic epidemic of thunderstorm asthma. Over a period of 30 hours, there was a 67.2% increase in respiratory-related emergencies. People died, ten people. It's inevitable that we'll be challenged again.

We need to be ahead. To future-proof our service, we need to think smarter, not bigger. We need to do things in



Mallacoota ambulance with red sky

more efficient and innovative ways. Technology is enabling us to re-imagine and transform our service. We're working proactively and in partnership with communities to build their capacity to respond to health emergencies.

Being ahead means that we will be in a position to manage extreme weather events on top of the significant demand drivers like mental health and an aging population that are the daily reality in a modern ambulance service.

H.S: It is certainly a challenging time for EMS, especially in Australia, but it does seem Ambulance Victoria are managing these challenges well and planning for an inevitably more challenging future. Is there a message you would like to give in general to the people in Australia involved in the emergency services?

T.W: There has never been a more challenging and rewarding time to be an emergency services professional.

H.S: Thank you for your time and insights, Tony. I think I speak for most people when I say the response to the bushfires by the Emergency Services in Australia has been incredible, and it certainly sounds like you're geared up for climate-related response. Personally, with this becoming a global issue, I think that there is a lot to learn from the work that Ambulance Victoria has been doing and is planning to do in the future and it will be interesting to see how things develop in the coming years.



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Guardians of Gaza: The Humanitarian Efforts of the PRCS Volunteers



An Interview with Israa Azzam, Palestine Red Crescent Society Volunteer

Following on from the introductory interview we did with the PRCS in our last edition of *Ambulance Today*, which was specifically dedicated to voluntary EMS around the globe, we are happy to present the second interview which we also undertook with Israa Azzam. Israa is a voluntary EMT based in Gaza and it is our hope that the two interviews offer an accurate understanding of EMS in Palestine when put together and compared.

Joe Heneghan: Israa, at what point in your life did you personally decide to become a paramedic in the first place? What led you to make this decision?

Israa Azzam: I am passionate about serving my community and providing humanitarian services to those in need. This passion drove me to volunteer as an emergency medical technician (EMT). The PRCS offered me the opportunity to take part in a First

Responder course which I joined in order to be better prepared to face Israel's continuous attacks on the Gaza Strip and because we need EMTs to be ready to operate at all times. My first assignment was during the March of Return protests along Gaza's borders in 2018.

The PRCS is a widely accepted and well-known organisation. It allows both men and women to join its ranks as volunteers, and endeavours to ensure a rapid response to emergencies. All that plus my desire to assist other people is what drew me to the PRCS in the first place.

J.H: Whilst you mention that PRCS take both male and female volunteers, what has your experience been as a woman working in EMS in Palestine?

Israa: I noticed a huge change on the personal level. The First Responder training course made me more capable of taking decisions and helped me develop a strong personality. Through it, I gained experience relating to First

Aid and assisting the sick and wounded. It also encouraged me to pursue an emergency and disaster response degree. My family did not object to the path I chose. On the contrary, my relatives stand by me and encourage me to persevere as an EMT in order to assist fellow Palestinians.

J.H: So, how long have you served with the PRCS? What route has your time with the PRCS taken?

Israa: I started serving with the PRCS in 2016, so for about four years. I was preparing a Master's degree in Disaster and Crises Management at the Islamic University when I joined the PRCS as a volunteer. I took part in a First Responder course offered by PRCS in which I learned how to deal with injuries and bleeding as well as how to provide First Aid and mitigate risks. I can now respond to all types of emergencies. I have already taken part in response efforts during the March of Return protests and during the latest escalation in the Gaza Strip in November 2019.

J.H: And how would you describe working as a volunteer for the PRCS during that time? How does it feel, what do you personally get out of it?

Israa: Despite the difficulties and risks I face as an EMT, especially in times of war, working with the PRCS is a great experience. We work as one team and I feel that all EMTs are part of the same family. This great working environment makes me feel happy and helps me accomplish tasks with more ease. Working as an EMT helped build my esteem and made me feel accomplished. It also boosted my community engagement and my desire to provide humanitarian services.



PRCS volunteers attend to a wounded patient



J.H: And what would you say are perhaps the biggest barriers to you delivering emergency care on a day to day basis then?

Israa: The PRCS is a National Society that aspires to provide humanitarian services to all those in need. It respects the fundamental principles of the International Movement including neutrality, impartiality, humanity and universality. Although International Humanitarian Law calls for the respect of medics at all times, there are constant violations committed by Israeli occupation forces against our medical mission, including the non-respect of the Red Crescent emblem. For example, tear gas was fired at me in the line of duty and a tear gas canister was directly fired at the ambulance I was in while covering the March on Return protests.

J.H: That is indeed a great difficulty to face and opens the need for further international discussion on so many levels. Whilst recognising the severity of such occurrences, the complexities of such a discussion are genuinely far too myriad to delve into here. However, I must ask: what keeps you going in the face of that type of personal danger?

Israa: What makes me continue despite all barriers is the happiness I see on the faces of the people I help.

J.H: There is, as they say, beauty in simplicity. Moving on, what is it like

to work in the Gaza Strip? How are you received by members of your community, especially when in uniform?

Israa: Members of my community treat me with respect, trust and appreciation. They fully understand that I represent a National Society that provides them with humanitarian services. They trust the PRCS and respect its uniform and emblem. They also know that they can turn to the PRCS and seek its help during emergencies.

J.H: Such deserved recognition must justifiably serve as a source of some pride. Simple recognition, support and thanks from a community go a long way in EMS. Speaking of pride, what are you proudest of when you come home after a day of serving people in emergencies, offering them treatment and comfort?

Israa: I am proud to be an EMT and to help others during emergencies. It is an honour for me to be a volunteer first responder with the PRCS. When I return home after my shift ends, I start remembering all the events of the day, including the sad ones, and I try to cope with the sadness in order to continue providing assistance to those who need it. One of the most difficult moments for me was when I received a call as I was tending a casualty during the March of Return protests informing me that my brother was shot in the foot. Another difficult moment was when I learned that the wounded person I had treated earlier at one of the PRCS'

medical posts had died at hospital. Then I learned that he was the brother of a colleague who was also tending the wounded that day at the same medical post.

J.H: So, to offer solace and care during such difficulty serves as a source of drive for you instead. That's understandable. Are there any organisations within Palestine which can help you cope with such experiences? Trying to handle that burden alone can be a very difficult, and even destructive, thing.

Israa: The PRCS has a Psycho-Social Support department which offers psychological support to the Society's EMTs and volunteers. With the help of specialized teams, they listen to us, offer us advice and provide us with training on how to be in control of our emotions and how to release pent-up stress after a long day of field work where we race to save lives.

J.H: Do you feel that a voluntary position within EMS has added to you as a person then?

Israa: I have no doubt that volunteering has added a lot to me as a person. It's made me better prepared for emergencies and helped me obtain a Master's degree in Crises and Disaster Management. My thesis was on the Role of paramedics in responding to crises and disasters and their impact on service quality.

J.H: One of the questions I asked Saleem, a fellow PRCS medic, in the last interview was what he would add to the service if he had the chance? So, again, if you could just wave a magic wand and receive as many things as you thought necessary to better the delivery of EMS in Palestine, what would they be?

Israa: If I could wave a magic wand, I would ask for the following:

1. Protecting medical teams, respecting the emblem and preventing all violations against them in line with IHL [International Human Law] provisions;
2. Ending the suffering in the Gaza Strip so people can live in peace and security;



PRCS volunteers keeping spirits high at the Gaza Strip



Focus on the Palestine Red Crescent Society

3. Teaching First Aid to school children as part of their curriculum;

4. Providing First Aid training for the maritime environment given the frequent clashes between occupation forces and Palestinians along Gaza's shores.

J.H: Very interesting answers offering much food for thought, thank you. Do you find that the PRCS receive any aid from the PLO, or perhaps a less centralised political body within Palestine? Do you receive support from outside of Palestine at all?



PRCS volunteers attend to a patient

Israa: The government of Palestine provides support to the PRCS as it happens in other countries. The Society also receives support from RCRC [Red Cross Red Crescent] constituents and from international humanitarian bodies.

J.H: And as an emergency service offering vital humanitarian aid, do think that you are given enough support politically from either inside or outside of Palestine?

Israa: The support we receive is insufficient given the great risks and violations committed against medics and the emblem in blatant violation of IHL [International Human Law].

J.H: At a guess, what types of calls would you say you see the most in your area?

Israa: Most calls have to do with car accidents, hypertension and heart conditions.

J.H: Do you think that anything can possibly be done to alleviate this?

Israa: Yes. Penalties can reduce traffic infringements and decrease accidents. On the other hand, hypertension and heart conditions are due to difficult living conditions in the Gaza Strip. Offering patients psychological support could help reduce stress and distress levels.

J.H: Well I sincerely hope that such ideas can be taken forward. Getting back to the nature of voluntary EMS, do you perceive any differences between those who undertake voluntary EMS as a vocation and those who serve in employed positions?

Israa: Yes, the work I do as a volunteer EMT differs from what professional EMTs do. They are more experienced and better capable of dealing with emergencies, handling challenging situations and coping with stress. They face grave risks in order to assist others and have been well trained to become professional EMTs. As for me, I feel that this is just the beginning. I still need to learn a lot from my professional colleagues in order to gain the experience they enjoy and to enhance my emergency-response skills, especially in wartime.

J.H: What do you do outside of serving with the PRCS? If this is a voluntary position, you must make your living through some other means?

Israa: I used to work as a teacher in a public school. Now, I have more time for my voluntary work at the PRCS. The unemployment rate is very high in the Gaza Strip because of Israeli occupation and the political situation.

J.H: I'm sorry to hear that. Similarly, how do you find the time to devote yourself to helping others and to regular training etc. in between your other personal duties in life?

Israa: I try to find the right balance between my work as a volunteer and my personal life. I allocate two days



PRCS volunteers assisting a patient at a medical post

every week to my voluntary duties at the Gaza EMS Centre and to tending those wounded during the March of Return protests. I also stand ready at all times to respond to emergencies.

J.H: Would you recommend volunteering in EMS to anyone else?

Israa: I would certainly advise anyone who has the capacity and qualifications to volunteer in EMS. Volunteering is an altruistic and humane activity that saves lives, serves society and builds ties between people.

J.H: And what advice would you give to those hopeful volunteers then?

Israa: I would advise them to become perseverant volunteers and to use their free time to serve their society. Volunteering offers great opportunities and is a wonderful way to provide humanitarian services to your community.

J.H: Israa, thank you for such candid and forthright answers. The glimpse you have offered into life working in EMS around Gaza has been fascinating, provocative and offers a foreground for much deeper continuing conversation. I hope you continue to gain as much from your tireless voluntary emergency care as your community and patients do.

Join Ambulance Today's WhatsApp group for more exclusive content concerning EMS in Israel & Palestine and more at bit.ly/AMBTODAY

NO-FEAR! First Responders at the Frontline: Collaborating with the Non-Professionals



By Anna Joval

Imagine an ordinary day at work. The coffee is fresh, and you wait for your next assignment. Then it happens. The disaster alarm goes off and it is yours and your teams' responsibility to respond. It could be a natural disaster or a terrorist attack. Hundreds, maybe thousands of people, are affected. Hundreds may need health care; many may already have lost their lives. Civilians are already at the scene facing the calamity.

In these circumstances, one can easily be overwhelmed by the magnitude of the situation, but at the same time the EMS personnel are trained to respond to emergencies, no matter how small or big they are. It is in our backbone to always provide medical care and offer help. The above imaginary scenario is no longer unthinkable, and the reality is that you, as a first responder, one day could be the one on duty when the



Image courtesy of ICRC Syria

alarm goes off on a massive disaster or a critical security incident.

This article will introduce you to the NO-FEAR project¹ (Network Of practitioners For Emergency medicAl

systems and cRitical care), and describes some of the challenges associated with bystanders and non-organized volunteers, whilst outlining how you can engage with the project activities.

The NO-FEAR Project

EMS plays a vital role in assisting wounded and sick people after security incidents. However, there are several challenges that need to be addressed. As a response to these challenges, the pan-European NO-FEAR project was launched in 2018. This coordination and support action project brings EMS, suppliers, academia, decision makers and policy makers together to collaborate and exchange knowledge, good practices and identify lessons learned.

Many of the NO-FEAR partners are practitioners who were directly involved in the terrorist incidents in Paris, Nice, Berlin, Madrid and Barcelona. Based on their experiences, the consortium



Image courtesy of Yves Magat, Afghanistan

initiated the project to better prepare and respond to several challenges that EMS face, and to overcome difficulties, such as:

- A fragmented chain of actors responding to security related incidents.
- A need for actors to respond to new threats such as terrorism and armed conflicts.
- A lack of communication between the practitioners working in the field and suppliers providing goods and services.
- No common methodologies and standardised actions.

The threat and risk situations today are quite different from just a few years ago, and security and preparedness plans are constantly being adapted to respond to new challenges. Cross-border collaboration to develop a common understanding of the innovation potential gives this project a unique opportunity to improve the capabilities of EMS to respond to new threats, and assist casualties after security incidents. This in turn will fill operational gaps and identify areas for future research, making EMS more resilient.

A higher frequency of natural disasters, critical security incidents and terrorist attacks are a growing trend in Europe and beyond. The correlative rescue work is unpredictable, challenging and involves well known dilemmas and potentially dangerous situations. When disaster strikes, we must be prepared, but what about the people already on site – the bystanders?

Civilians: The First to Save Lives

Bystanders and non-organized volunteers usually initiate life-saving measures quickly. It is a misconception that people become helpless or panic during a crisis. Although one may be affected by fear, the desire to help is stronger. The official report after the shootings at Utøya in Norway, 22nd of July 2011² points out what a valuable resource the ordinary man and woman are when disaster strikes. At Utøya, in addition to logistics on water, civilians also performed first aid, provided warm blankets and clothing,



Mexico City: people helping after the earthquake. Shutterstock.

and showed tremendous care and compassion. In the minutes following a critical incident, there will normally only be the wounded and bystanders on site before the police and EMS arrive. These minutes can be critical for severely injured people and can mean the difference between life and death. Bystanders who understand the urgency of the situation may feel an immense responsibility. Getting an overview of the situation and simultaneously trying to save lives with minimal resources contributes to additional stress³. Reports tell the story of former bystanders who say that leaving someone behind is not an option, even with a “great personal risk and subsequent injury”⁴.

When the shootings at Utøya started, it did not take long before people at the landside understood that something was wrong. They heard gunshots and saw youths jump into the water, swimming for their lives. We have also learned from the reports that young survivors from Utøya tried to help friends escape the gunshots. Residents on the landside and camping guests collaborated to rescue the hypothermic and injured teenagers. Whilst the youths immediately started to help each other, the residents and the camping guests got their boats on the water and went out to rescue the cold and injured teenagers. Some of the volunteers were shot at while saving lives². Nevertheless, they kept transporting injured persons to the

mainland. These volunteer efforts continued for some time after the police and EMS had arrived. At some point, volunteers even provided water transportation for the police. Later they said: “the collaboration with the professionals was good, but it took them a long time to arrive”⁵.

The concern is not about people's willingness to contribute when disaster strikes, but whether there should be limitations to what actions one can expect from bystanders. Although it is sometimes necessary for first responders to make use of bystanders and non-organized volunteers to effectively meet the needs of the injured, the ethical reflections around whether professional responders put non-professionals in harm's way, either physically or emotionally, must be

Biography: Anna Joval



Anna Joval works for the Norwegian Red Cross as an Adviser in the ambulance and crisis management initiative (Health Care in Danger and the NO-FEAR project). Before that she worked for 15 years as a specialized nurse in the emergency medical field, including field experience from Australia, Zambia and Syria. She specialized in Emergency Nursing at Oslo Metropolitan University and completed her Master's in Safety and Security Management at the University of Stavanger. She also has a Diploma in Human Rights and Multiculturalism from the University of South-Eastern Norway, Drammen.



Image courtesy of Martin Chico, Yemen

taken into consideration and further discussed. Given the unpredictable nature of any crisis, we understand that being near or on the site of the incident involves personal risks, but EMS has a duty to act, balanced by a duty to consider relative risk⁶. At the end of the day, we are the ones who need to prepare for, and gain knowledge

of, how to leverage bystanders and non-organized civilians as medical force multipliers during MCIs (mass casualty incidents)⁴.

The Perception of the Bystanders' Efforts?

Even those who work with adverse events may perceive a crisis as surprising and threatening. At the same time, they are expected to make decisions very quickly and with overwhelming pressure⁷. Hence, it is not difficult to understand if and why professional first responders associate bystanders with increased chaos and stress, rather than as essential resources in the rescue work.

However, research⁸ has previously shown that the inherent altruism of the population is crucial to the efforts made to save lives under acute incidents. This selfless concern for the wellbeing of others may explain why people help each other, carry out life-saving measures and stand together in times of crisis. Empirical evidence suggests that the civilian population can provide valuable resources which have not been fully utilized. One reason may be the argument that when many want to “do well”, chaos and ambiguity can arise, which in turn can be problematic for the professionals⁸. One cannot stop people from arriving

Norwegian Red Cross

The Norwegian Red Cross

(NorCross) is a humanitarian organization that is committed to, and bound by, the fundamental principles of the International Red Cross and Red Crescent Movement and acts as the guardian of the Geneva Conventions.

NorCross' mission is to “reveal, prevent and alleviate human suffering and distress”. As an auxiliary to the Norwegian authorities in the humanitarian field, NorCross' activities in Norway aim to assist and supplement relevant public services. NorCross' activities are grounded in local needs, resources and competencies, and carried out by volunteers working in their own communities. For individuals and local communities this means that the Red Cross will be there when accidents and disasters strike, and that it is making an ever-greater contribution to the care of children, young people and senior citizens.

The overall objective of NorCross international work is to reduce the vulnerability of local communities and to prevent loss of life

Website: <https://www.rodekors.no/en/>

Twitter: <https://twitter.com/rodekorsnorge?lang=en>

to offer help, but too many people with the desire to contribute can also be a burden and an obstacle to the professionals doing their job. This can lead to negative attitudes and wrong assumptions towards the bystanders. Nevertheless, we know that it takes time for professionals to respond to critical incidents and, in the immediate aftermath, the affected must rely on themselves.

Bystanders and non-organized volunteers can and should be considered a resource in crises, from which EMS can benefit. By coordinating efforts and eventually taking over full responsibility, the information and work already carried out can be utilized for:

NO-FEAR

How you can engage in the NO-FEAR project:

The project is funded by the EU and Horizon 2020, which is the biggest EU Research and Innovation programme ever: <http://no-fearproject.eu/>

The NO-FEAR project gives you the chance to engage with stakeholders from the emergency medical field, industry, and academia. This will give you the opportunity to exchange experiences, best practices, and lessons learned together with the ability to access new products and innovation solutions. There are two events per year and several benefits of joining the project. You can be involved in the NO-FEAR project by joining the two networks via our platform: <http://www.no-fearproject-portal.eu/>

- A better understanding of the situation.
- Efficient and correct crisis management.
- A better outcome for both lives saved and psychosocial aspects following the disaster.

This form of crisis management is based on collaboration to achieve control of the situation⁷. However, it is important to keep in mind that each crisis is unique. The affected will have varying degrees of knowledge and needs, thus presenting different reactions to a situation. Raising awareness of the inevitable interaction between the EMS and bystanders is crucial in achieving a better understanding of the value each group has when joining efforts to save lives. National guidelines for establishing easily available first-aid courses to the public could be a way of strengthening the societal

resilience. But first and foremost, it is important that training in managing the bystanders and non-organized are embedded in a standardized education for EMS.

There will always be civilians who are first at the scene of injury and in many cases initiate life-saving measures, sometimes also further safeguarding the disaster area. As a

resource, bystanders are currently not fully exploited, meaning a considerable potential for strengthening society for emergency purposes remains to be utilised.

To contact Anna and find out more about the NO-FEAR project, you can email her at: anna.joval@redcross.no

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Pharmacology for EMS

The 3rd edition Advanced Medical Life Support (AMLS) textbook was recently published, featuring new chapters covering critical illnesses which EMS practitioners often encounter in the field. In this edition of Ambulance Today, Dr. Stein Bronsky, emergency physician and medical director for the Colorado Springs Fire Department and American Medical Response (AMR) in El Paso County, Colorado, discusses pharmacology in the field of EMS. Bronsky is a contributing author of the new AMLS chapter on pharmacology.

Q. Before we talk about pharmacology, can you tell us what got you interested in EMS?

When I was 17 years old, I got in a car accident – a bad car accident. I was driving and I fell asleep on a really narrow canyon road, the kind where if you swerve you may go off the edge of the cliff. A bus driver saw us swerve. He sped up, swung wide and hit us to plow us up against the canyon wall and keep us from falling off the edge. I don't remember a lot, but I remember having to be extricated.

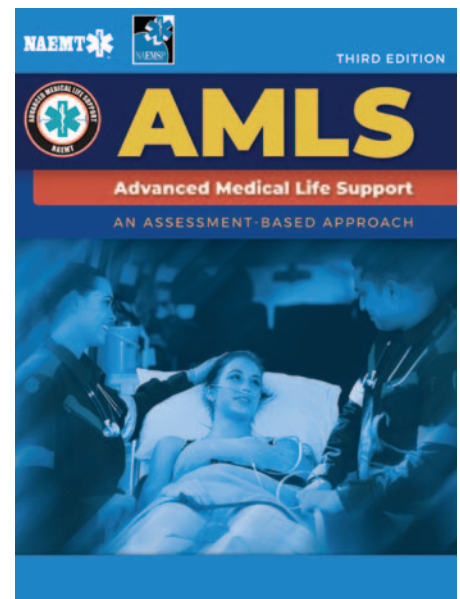
I had a lot of broken bones. I almost lost my lower leg, and I had a head injury. I didn't have any internal organ damage, but my passenger did. The emergency crews knew how to handle the situation, and it was really impressive. I became an EMT shortly after that, and worked as a ski patroller in Utah while I was in college.

Q. Did you always plan on eventually becoming a doctor?

No. My dad is a pediatric immunologist, and I wanted to do something different. So I went to Israel to study Middle Eastern studies.

But while I was there, I became a paramedic. During the late 80s and early 90s, there was a lot of trauma there. There were an unbelievable number of car accidents. They didn't have traffic police, so there was nobody stopping anyone for speeding or driving poorly. There were also terrorist attacks – mostly suicide bombers and backpacks left in crowded tourist areas, loaded with explosives. They would just wait for somebody to pick up the backpack, and boom.

Israel got very, very good at MCI triage and treatment. One thing they learned is that people will not stick around and wait to be triaged or wait for an



ambulance. If they can get up and physically move away from a scene, they will get as far away as possible. It's human nature. If they are too injured, the people around them will pick them up and extricate them out of that circumstance.

Israel learned emergency crews will not get there in time to treat the majority of patients. There may be somebody who freezes up and doesn't move, or who looks dead but is not quite dead and so people left them. But it is single digit percentages of people who are still at the scene when EMS arrives, and who are still alive so you can do anything to try to save them. Nearly all of the action is at the nearest hospital. Not a trauma center, and not the place best equipped to help them, but whichever hospital happens to be the closest. After my time in Israel, I knew I wanted to go to medical school and become an ER doctor.

Q. What do EMS practitioners need to learn about pharmacology?

Pharmacology is the study of interactions between a medication and the human body. As an EMT or first responder, you learn practically nothing about pharmacology. When we get to paramedic school, we learn more. But what we don't really learn is the 10,000-foot view: what are the different classes of medications, why do we use them, what are our expectations when using one, and what are the effects, wanted and unwanted?



Opioids are a perfect example. We want to alleviate the person's pain but there are other effects, including depressing respiration and lowering blood pressure. Those are consequences we have to know about.

Typically, as field providers, we receive a cache of drugs. You are taught about those specific drugs and when to give them. But what happens if you don't have one of those drugs because there is a shortage? How can providers make decisions about what to give when the situation requires critical thinking?

For example, let's say you have a patient who has broken their leg versus one who has a huge, penetrating exsanguinating injury and their blood pressure is low. You have to be able to use critical thinking – what is unique about this patient's physiology and pathology? The drug I'm about to give for pain has some good effects and some bad. Is one of those bad effects something I need to worry about?

Let's say you have morphine, fentanyl and ketamine. Which one would you give to a patient who is elderly, hypotensive, has an unstable pelvis after a fall and is in a lot of pain, vs. somebody who is young and healthy with a pinned limb who needs to be extricated?

I may give ketamine to somebody who is young, healthy and needs pain management during a prolonged extraction. You may have difficulty getting to them. Fentanyl is short-acting and you may need to multi-dose the patient and monitor their respiratory drive or give supplemental oxygen, which may not be possible. Ketamine would manage their pain and be a hemodynamically stable drug that does not affect the respiratory drive. Ketamine lasts longer and the dissociative affects of ketamine may be a good thing if you have to do an amputation.

But for an elderly patient with a broken pelvis, we want to use a pain medicine that will not lower blood pressure. Morphine and hydromorphone (Dilaudid) are out. Could I use ketamine? I could, but ketamine has unpredictable side effects in elderly patients. Sometimes it works fabulously, but occasionally patients become unresponsive even with

a small dose. So we need to be very, very cautious and use critical thinking to assess which drugs are best in a given situation.

Q. What steps can EMS practitioners take to avoid medication errors?

Dosing errors are the most common errors made on patients outside and inside the hospital. To reduce these errors, we need good, systematic communication, and methods of organizing our system. Hospitals have set up extremely elaborate programs to make sure you are giving the right dose, and the right medication, to the right person. In the field, we don't necessarily have those systems in place yet.

In Colorado Springs, we've taken some steps to mitigate that, such as standardized doses. We have also gone to volume-based dosing for pediatrics so you don't have to do the math. Math is not most people's strong point, especially not at 3 a.m. when you're exhausted. We also ask everybody at our agency to tell us when there is a medication error. This is a non-punitive process. We want to understand how we set you up for that failure and change our system so it doesn't happen again.

Q. There's a lot of concern about opioid addiction and the overuse of opioids. In the EMS setting, is there a greater risk of EMS overtreating pain or undertreating pain?

We have gone from potentially over-treating pain, to now potentially undertreating pain because of concerns about opioids. Today we have a greater recognition of the potentially harmful side effects of the acute use of opioids, as well as the addictive properties. One positive change coming out of this is that we have started to think about other possibilities for pain management, such as acetaminophen (oral and intravenous), NSAIDs (nonsteroidal anti-inflammatory drug) and ketamine.

We also need to consider the hazards of opioid medication diversion. Traditionally there isn't a great chain of custody for controlled substances in the EMS system. It behooves everybody to ensure they have systems to track these medications so we can reduce diversion and, if diverted, have a better chance of



figuring out how it was diverted. Access to controlled substances is a risk factor for addiction.

Q. How can bias impact pain management decisions?

Bias can be on opposite ends of a spectrum. Some providers may say, 'I believe it's our priority to make sure that every person who is experiencing pain is completely out of pain.' Or you can have the opposite bias where you'd say, 'I understand this person is in a lot of pain, but pain isn't going to kill you. No way am I going to give an opiate medication. They can get opioids at the hospital.'

Cultural biases based on gender, socioeconomic status, and race are also well-documented in the prehospital administration of pain medication. Medics may be less likely to offer pain relief to a homeless person, or somebody they believe meets the picture of a drug-seeking person.

I don't claim to have all the answers. But overcoming bias requires taking a really hard look at your personal beliefs and recognizing bias. Although most people don't self-reflect on this topic – they see their beliefs as facts and they don't see another way of looking at it.

Q. Are there pain management medications that you think are underused in the prehospital setting?

I think there are several medications that are underused. As a culture in

medicine, we think of opiates as the answer to pain management in emergency situations. Almost all other medications and all other classes of medications are systematically and historically ignored as a possibility for treatment.

We need to do everything we can to broaden that view and determine when it is appropriate to use opiates and when it's appropriate to use other types of medications. Often in the prehospital environment, if a patient is deemed to be in tremendous pain they get an opiate, and if they're not in that much pain they don't get anything. But we can do better.

Say somebody has severe strep laryngitis (strep throat). We don't think of that as a life-threatening emergency, but it can cause a lot of pain. It's hard to swallow, so they don't want to put anything in their mouth and they can

become dehydrated. Does this kid or adult deserve pain management in the prehospital environment? Yes they do. We could use topical medications, such as topical or nebulized lidocaine, which would provide tremendous relief. Tylenol or an NSAID would also help.



Even for bone fractures, not everybody needs an opiate — especially kids who respond very, very well to acetaminophen and NSAIDs. Adults do too, although they are more mentally inclined to think over-the-counter medication isn't going to help, whereas kids haven't formed those beliefs yet.



Q. Studies show that anaphylaxis is under-recognized and potentially undertreated in the prehospital setting. What does EMS need to recognize about anaphylaxis and the use of epinephrine to treat it?

The emphasis on recognizing anaphylaxis has traditionally centered around airway issues. If your throat is closing up, you can't swallow and you're having a hard time breathing — you're having a bad allergic reaction and we want the provider to use epinephrine.

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Anaphylaxis is a systemic process that can manifest in different ways – and not always with throat swelling. If you're thinking only about the respiratory system, you may be missing other systemic effects, such as a full body rash or hives. GI issues are common; people who ingest an allergen may have nausea, vomiting or abdominal



cramping. Wheezing may make EMS practitioners think more about albuterol than epinephrine, but wheezing may also be part of an anaphylactic reaction.

Hives, GI issues, wheezing, hypotension – these kinds of symptoms should trigger using more aggressive treatments, including epinephrine, as well as histamine-blockers such as diphenhydramine (Benadryl) and famotidine (Pepcid).

From an educational standpoint, we need to do a better job explaining what is happening in the body during anaphylaxis, so EMS practitioners are not just focused on the airway.

Some of this also involves changing the culture at EMS agencies. EMS practitioners are often taught to only give epinephrine when you are sure somebody is in anaphylaxis. If the symptoms aren't exactly what they were

taught, they are afraid that if they give epinephrine they will get into trouble. That environment impedes people from using their brains to work through a situation. In our system in Colorado, we promote the idea that if you think it's the right thing to do, even though it doesn't check all the little boxes, you write down your reasoning and the thought process you went through. Even if you're wrong, you're not in trouble. Guess what? Doctors get it wrong at times too. We want you to think critically. Sometimes you will be wrong, but a lot of times you will be right.

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Return of the Tourniquet: Vital Tools Placed Closer to Scene

By Audrey Fraizer

Lynne Baird believes her son Daniel would have survived had he been treated with a bleed control kit.

Daniel was 26 when fatally stabbed at a pub in Digbeth, Birmingham, following a night out with friends and, to prevent others from suffering the same fate, Lynn started a foundation distributing bleed kits in London's financial district.¹

Baird's precautionary contribution is not isolated.

Taxi Alliance Liverpool received training in bleeding control and bleeding control kits from the Aintree University Hospital's trauma centre as part of a KnifeSavers campaign. The kits contain scissors, gloves, tourniquets and trauma dressings as well as military-grade gauze and chest wound sealant.²

KnifeSavers was the brainchild of Nikhil Misra, consultant general and trauma surgeon at Aintree University Hospital, who wanted to make tools that could prevent death closer to the scene.

*"Equipping people with the knowledge and tools to prevent massive blood loss at the scene of a stabbing is the single most effective step we can take towards improving the chances of survival for victims."*³

Knife crime has reached a new record high in England and Wales, with official figures revealing almost 44,700 offenses in 2019.⁴ UK Office of National Statistics show that the City of London saw a steep rise in knife crime last year, up 43 percent to 57 incidents in 2018-19.⁵ A fifth of the crimes – more than 4,500 – were committed by children aged between 10 and 17.⁶

Would you know how to help someone with major bleeding? Uncontrolled, life threatening hemorrhaging is one of the leading causes of preventable death following a traumatic injury, and a person who is bleeding uncontrollably can die from blood loss within five minutes.

Think tourniquet. They're back in EMS vogue as a device in hemorrhage control following a decline of the tourniquet in favor of applied pressure during WWI.

Medical tourniquets now play an essential role in complex medical procedures and emergencies to regulate blood flow. These devices are used to prevent blood loss by compressing blood vessels and assist medical professionals in carrying out medical procedures with minimum blood loss. Tourniquets are not limited to a one-style fits all description but come in several varieties to accommodate the purpose. They include tactical, pediatric, military, surgical, and the emergency medical tourniquet. An emergency medical tourniquet is commonly used to control arterial blood flow.

Numerous studies supporting the tourniquet's return has the device counted among the essential gear of fire/EMS systems and stationed alongside AEDs at airports, popular nightlife venues, and places of potential mass casualty incidents. The International Academies of Emergency Dispatch (IAED™) is a charter member of the US 'Stop the Bleed' campaign and instructions for tourniquet use are available in the Medical Priority Dispatch System™ (MPDS) system version 13.2.

Protocol T: Tourniquet was developed by an Academy research team that spent the better part of a year drafting the proposal and pre-testing prior to a volunteer focused study conducted



1st Lt. Rob Fidler, 19 Regiment Royal Artillery Joint Tactical Air Controller officer-in-command, applies a tourniquet to a simulated injury on Master Sgt. Scott Piper, 352nd Special Operations Support Squadron Medical Element flight chief. U.S. Air Force members had conducted two-day training with British JTACS from 19 Regiment from Tidworth, Wiltshire, and 3 Battalions. (U.S. Air Force photo by Karen Abeyasekera)

at selected venues in Salt Lake County, Utah (USA), and enlisting 246 volunteers. The objective was determining whether layperson callers can effectively stop simulated bleeding using an improvised or a commercial tourniquet, when provided with scripted instructions via phone from a trained protocol-aided EMD.

According to the study rationale, if tourniquets are going to be placed in public locations, emergency medical dispatchers (EMDs) should be prepared to answer callers' questions regarding situations requiring them, and enthusiastically provide instructions on their use.⁶

At each study sight, participants called a simulated 911 line (comparable to the UK 999 three-digit emergency exchange) and reported a victim with life-threatening bleeding to the leg, which is identified in the real world as⁷:

- Blood that is spurting out of the wound
- Blood that won't stop coming out of the wound
- Blood that is pooling on the ground
- Clothing that is soaked with blood
- Bandages that are soaked with blood
- Loss of all or part of an arm or leg



Image credit: stopthebleed.org

The emergency dispatcher verified the catastrophic nature of the bleed and proceeded in giving the step-by-step instructions while a research team member timed how long it took the "caller" to stop the bleeding with the tourniquet, according to the control device.

"We could watch how people reacted [in response to the instructions] but we couldn't step in," said Chris Olola, Ph.D., Director, Biomedical Informatics and Research, IAED. "It took a lot of testing and revision before adding it to the existing protocol."

According to results, a majority of participants (80.49%) were well within the critical five-minute time limit, with an overall median time for all trials (i.e., elapsed time from the start to the end of the simulation) of 3 minutes and 19 seconds.⁸

"Of course, in a chaotic, uncontrolled, and emotionally charged real-world event (such as a knife stabbing) it might be unrealistic to expect the high success rate of patient survival that was demonstrated here", Olola said.

"Nevertheless," he said, "This study provides ample evidence that life-saving tourniquet application by untrained laypersons is possible with the benefit of dispatch-directed EMD assistance."

The Tourniquet protocol doesn't replace direct pressure in most bleeding situations, cautioned Greg Scott, Operations Research Analyst, IAED. "A tourniquet is the best way to stop the bleeding from catastrophic injury. Direct pressure is still the preferred method for abrasion."

As in the EMD's First Law of Safety, the bystander is cautioned against creating "more victims at the scene." Bystanders must ensure their own safety and provide care to the injured person if the scene is safe to do so. If safety is threatened, the bystander should move from the danger, taking the victim if possible, to find a safe location.

Not surprisingly, demand for surgical tourniquets has surged based on their reintroduction to trauma care and the rising adoption rate of trauma care



Photo courtesy of Emma Hammett, First Aid for Life

devices, along with increasing numbers of accidents, injuries, and emergencies. Additionally, the range of new devices being developed offer promise for bystanders, first responders, and surgeons delivering emergency services and these devices are expected to play crucial roles in reducing the emergency response times and improving the survival rates for patients.⁹

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From the Africa Desk of Ambulance Today: Trauma Care in Africa: The Challenge of Definitive Care



By Michael Emmerich

This Africa Quarterly explores Trauma Care and, as per usual, we will put the microscope on the African continent in the search for, and the challenge of, definitive care. Traumatic injuries are a neglected epidemic in developing countries, causing more than five million deaths each year—roughly exceeding the combined deaths from HIV/AIDS, malaria and tuberculosis. Due to the unsafe conditions and relatively poor outcomes once someone is injured in low and middle-income countries (LMIC), we found about 90% of the global burden of injury-related mortality and disability to be concentrated within these LMIC countries.

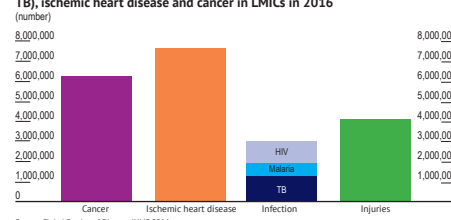
The likelihood of death after injury is up to six-fold greater in an LMIC than in a high-income country! * See figure 1

“No one should die for the lack of access to emergency care, an essential part of universal health coverage. We have simple, affordable and proven interventions that save lives. This initiative will ensure that millions of people around the world have access to the timely, life-saving care they deserve.”

—WHO Director-General Dr Tedros Adhanom Ghebreyesus on the launch of the WHO Global Emergency and Trauma Care Initiative, 8th December 2018

Around the world, acutely ill and injured people die every day due to a lack of timely emergency care. Among them are children and adults with injuries and infections, heart attacks and strokes, asthma and acute complications of

Figure 1: Total number of deaths caused by injuries, infection (HIV, malaria & TB), ischemic heart disease and cancer in LMICs in 2016



Source: Global Burden of Disease, IHME 2016.

pregnancy. Many countries have no emergency access telephone number to call for an ambulance or no trained ambulance staff, or even ambulances/emergency response vehicles. Many hospitals lack dedicated emergency units and have few providers trained in the recognition and management of emergency conditions. Deaths could be avoided if the necessary structures were in place.

But there are winds of change sweeping across the continent, albeit in small pockets and in key isolated areas of the treatment paradigm. The challenges are huge but, thankfully, the Medical Profession is one of the key, and at times only, driving force behind these changes.

Challenges to trauma care include inadequate pre-hospital and in-hospital trauma care protocols, as well as staff with limited training in trauma management. Hospitals have no dedicated trauma units, no emergency medical equipment, drugs or trained and skilled physicians / paramedics / nurses to deal with the influx of patients. In addition to this, poor or absent basic life support training by local communities — or patients and family preferring the services offered by early alternative unconventional traditional care — further hinders



definitive trauma care of the sick and injured.

Numerous strategies targeting these challenges are being implemented across the continent driven by a host of NGO's, Training Institutions, The WHO and other service providers. Mapping out and, most importantly, adapting mechanisms proven to be effective in developed countries, such as assessment, diagnostic and treatment algorithms (e.g. ATLS and ITLS adapted frameworks), training, prehospital systems, and overall system organization are being driven by medical practitioners across the region.

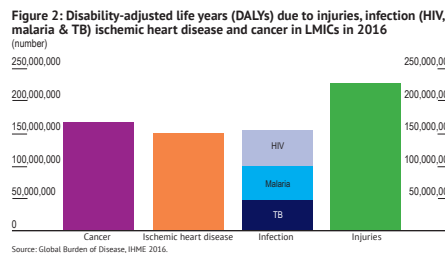
"Injury is an increasingly significant health problem throughout the world. Every day, 16 000 people die from injuries, and for every person who dies several thousand more are injured – many of them with permanent sequelae. Injury accounts for 16% of the global burden of disease. The burden of death and disability from injury is especially notable in low and middle-income countries. By far the greatest part of the total burden of injury (approximately 90%) occurs in such countries."

Etienne Krug, MD, MPH Director, Injuries and Violence Prevention Department
WHO



Besides the rapidly rising fatalities, we must also take cognisance of the rising number of injured persons and their cost on the (Global) health burden. Road-traffic crashes were the number one killer of young people and have accounted for nearly a third of the world injury burden. Most of the victims were young, and many had families that depended on them, who must now rely on other sources of support; in most instances, the State.

Disability after injury is 20–50 times more common than death. Most of the resultant morbidity can be alleviated



by early and appropriate rehabilitation services, which many reports/studies and NGO's list as being sadly lacking. Rehabilitation is a critical component of the emergency treatment algorithm; without effective rehabilitation we have not maximised the initial effective emergency and surgical care.

The loss of earnings from these deceased or disabled breadwinners is significant. From 2015 to 2030 an estimated US\$7.86 trillion is expected to be lost globally due to injuries and LMIC's are projected to experience losses that are almost 50% greater than high-income countries! According to the Economist Intelligence Unit Limited 2018, central and southern sub-Saharan Africa is estimated to lose up to 2.5% of GDP to injuries in 2030. The cost of economic losses from road traffic injuries in LMIC's are thought to be around the US\$100 billion mark per year; the resultant economic burden of injury is higher than that for cancer, diabetes and for respiratory diseases.

The key player in a successful turnaround strategy is not the medical profession, but government. Politicians and State institutions can turn the tide. True, there are challenges moving forward; many African nations are impoverished and shackled by their burden of external debt, mismanagement of State resources and corruption. There are also shortages of trained medical professionals and poorly staffed academic institutions, all of which can be redressed by a willing active and engaged government. Trauma care requires political will and focussed governmental direction on rolling out clear national policies and guidelines.

Where we have seen decreasing mortality rates in LMICs is due to governments recognising the need to roll out coordinated injury development

programs, based on clear and strong epidemiologic principles raising awareness with respect to accident prevention; for example, enforcing the wearing of motorcycle helmets. Thanks to a combination of insufficient, non-existent or poorly enforced safety laws, poor infrastructure and a lack of enforcement alongside a presence of corrupt enforcers, we have countries aiding and abetting in the deaths of over 1.3 million persons annually!

Only 28 countries, representing 449 million people (7% of the world's population), have adequate laws that address all five risk factors (speed, drunk driving, helmets, seatbelts and child restraints). Over a third of road traffic deaths in LMICs are among pedestrians and cyclists. However, less than 35% of these countries have policies in place to protect their road users.

Absence of a proactive government has been identified as one of the critical barriers to effective trauma management, due to its influence on all the other essential components of the emergency medical paradigm. We must work to develop systems that are relevant to Africa and ensure that the "disease" is attacked at all levels: from prevention, to treatment, to rehabilitation. Without political will, nothing will change; engage politicians and policy makers to ensure injuries are made a national priority and that their allowance is felt as an outrage!

An injury to one is an injury to all – make definitive trauma care a reality!

Additional Reading:

<https://www.sciencedirect.com/science/article/pii/S2211419X13000037> – Emergency Care in sub-Saharan Africa: Results of a Consensus Conference

<https://www.eiu.com/graphics/marketing/pdf/Injuries-in-LMICs.pdf> – At Breaking Point: Understanding the Impact of Musculoskeletal Injuries in Low and Middle-Income Countries

https://www.who.int/violence_injury_prevention/publications/services/en/guidelines_traumacare.pdf – Guidelines for Essential Trauma Care

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Out & About News

Saving lives through defibrillator details

In Henfield, the quick thinking of a Nurse and a Community First Responder saw a defibrillator (AED) utilised in two different ways to save the same person's life.

When Steve collapsed and stopped breathing during a tennis match, an off-duty Nurse took immediate action to save his life by providing crucial cardiopulmonary resuscitation (CPR) and by getting a hold of one of the small village's 40 AEDs.

After 30 seconds of CPR, and the application of an AED, Steve regained consciousness and began to breathe. He was taken to hospital, where an electrocardiogram (ECG) showed no abnormality and the patient was scheduled for a possible discharge - but he wasn't out of the woods yet. This particular defibrillator was to play another important role in this survival, thanks to Community First Responder Kas Fletcher.

Team Leader Kas, who is passionate about improving out of hospital cardiac arrest (OHCA) survival by analysing defibrillator downloads, regularly downloads the data from events in Henfield and her keen dedication and attention to detail made all the difference in this instance. Within 30 minutes of the collapse, Kas had all the information from the defibrillator that was used - and noticed something worrying. The early part of the downloaded report showed a rhythm disturbance called Mobitz type 2 followed by two long periods of absent heart beats. This type of atrioventricular block has an increased risk of progression to complete heart block and cardiac arrest. Urgent treatment with a pacemaker (a life-saving device which sends electrical pulses to your heart to keep it beating) is therefore required.



Kas immediately contacted Paramedic Dave Fletcher to confirm the rhythm she had seen, and then the Ambulance service, who relayed this crucial information to the hospital. Steve's discharge was cancelled as a result and he was fitted with a pacemaker.

Steve was lucky. Henfield's multitude of AEDs (28 of which are Public Access Defibrillators), the quick and crucial actions of the off-duty nurse, and Kas going the extra mile to review all the defibrillator data all combined to save his life.

Most people who have a collapse and stop breathing aren't so fortunate. In the UK, less than 1 in 10 people survive an out of hospital cardiac arrest. In this instance, early CPR and the accessibility and early application of a defibrillator together with a high level of care and attention to detail made all the difference between life and death.

Dr Andrew Lockey, Resuscitation Council (UK) Vice-President said:

"More and more people are now learning how to buy time by doing CPR for a person who has suffered a cardiac arrest, but the use of a defibrillator in addition to that can truly restart a heart. This case story demonstrates all the collateral benefits of knowing where your local defibrillator is and how to use it."



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South Western Ambulance Service Announces Appointment of New CEO

South Western Ambulance Service NHS Foundation Trust (SWASFT) is delighted to announce the appointment of our new Chief Executive Officer.

Will Warrender CBE will take up the role following the announcement that our current CEO, Ken Wenman will be retiring at the end of June.

Will, who has had a long and distinguished career in the Royal Navy, has been appointed following a rigorous selection process, involving members of the Board, Executive team and a panel made up of our people representing all areas of the organisation along with union representatives and Governors.

Will's suitability for the role was supported by each group, with his natural leadership style and his engaging and authentic manner evident throughout the process. His determination to make a difference in the role was infectious. Will demonstrated his ability to be truly effective by quickly assimilating information about our patients, our people, the ambulance sector, the South West health economy as well as our wide range of other stakeholders.

Tony Fox, Chair of the South Western Ambulance Service said "We are very excited that Will is joining us, bringing a wealth of leadership experience in complex and challenging environments. His personal values are a great alignment with those of the Trust and we know that he will be an inclusive and compassionate leader, able to take the Trust forward as we continue our drive to be an outstanding organisation in all that we do."



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Will Warrender said "I am very excited to be joining South Western Ambulance Service. As part of the application process, I met many of the caring and dedicated people who work in the Trust, the committed and insightful leadership team and many health service stakeholders.

I am delighted to be able to continue my career in public service and feel there is no better organisation than SWASFT in which to transfer my skills to deliver exceptional patient care, delivered by exceptional people. I am incredibly proud and excited to join the team."

London's Air Ambulance Charity Calls for Support to Fund Growing Number of Missions

New data released by London's Air Ambulance Charity has highlighted an increase in patients attended to in 2019. The charity supports the pioneering service to deliver life-saving treatment to the 10 million people who live and work in London, bringing the hospital to the scene to deliver urgent medical care when every second counts.

In 2019, the charity's 30th anniversary year, the helicopter and rapid response cars took an advanced trauma doctor and paramedic to 1,730 patients whose lives were on the line. The figures show 74 more missions than the previous year, at a cost of £2,080* to make each mission happen.

Primarily funded by charitable donations, the service is also supported by Barts Health NHS Trust and the London Ambulance Service NHS Trust. Barts Health NHS Trust provides the doctors, some financial support and the helipad facilities at the Royal London Hospital. The London Ambulance Service NHS Trust provides the paramedics and the emergency infrastructure to dispatch the service 24 hours a day.

The data shows that the busiest boroughs were Westminster, Haringey and Lambeth. Nearly one third of injuries were from stabbings and shootings (32%) or road traffic incidents (28%) and one fifth due to falls from height (22%). Other critically ill patients were treated following rail incidents, industrial accidents, drownings and medical emergencies including cardiac arrest.

London's Air Ambulance has a world class reputation for delivering clinical innovation and pioneering treatment at the roadside and is known for using new technology and treatments to bring the most innovative care to the people

of London. Treatments now delivered by the team on-scene include pre-hospital REBOA, to help patients suffering serious internal pelvic bleeding, and carrying blood on board, resulting in significant drop in number of patients bleeding to death before reaching hospital.

In 2019, London's Air Ambulance started working with 'GoodSAM instant on scene' - a technology that enables the London Ambulance Service Paramedic in dispatch to live stream video from any 999 caller's mobile phone camera, to get on-scene video footage to see the patient, instantly locate the caller and to provide life-saving advice. It has been used by the service 134 times by since October 2019 and is helping to quickly understand a patient's injuries and to provide the best treatment, ensuring London's Air Ambulance is dispatched to the right person in the quickest time.

Jonathan Jenkins, CEO of London's Air Ambulance Charity, said: "Every day, London's Air Ambulance is ready to deliver rapid response and cutting-edge medical care to people who are in urgent need, but we couldn't do it without the support of the public.

"Every second counts in an emergency - we hope the public will continue to help us get there in time to save a life by donating at www.londonsairambulance.org.uk."

Medical Director Dr Tom Hurst said: "Critical injury from road traffic incidents, falls from height, assaults and other injuries are the biggest killer of people aged under 40. We have a proud history of pioneering new ways to save lives and have developed ground-breaking treatments that mean people who would have died at the scene of the incident a few years ago are now surviving.

"Sadly, there are still some patients whose injuries are so severe that they don't survive. That's why we are committed to investing in research and development and collaborating with our partners to find new techniques and treatments that can create more survivors in the future."



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WMAS Issues Statement of Thanks to Staff Over Operational Efforts During Flooding Challenges

The Trust is maintaining its focus on supporting the multi-agency response to the areas affected by flooding in the West Midlands.

At the peak of the flooding on Tuesday, the Environment Agency had a total of nine Severe Flood Warnings in place (meaning a danger to life), all of which were in the West Midlands area.



West Midlands Ambulance Service Chief Executive, Anthony Marsh, said: "The flooding that we've experienced over the last few days in many parts reached record levels. We've been dealing with three major incidents in Shropshire, Worcestershire and Herefordshire. "My staff have responded magnificently; they are prepared, trained and exercised for such major incidents. They have really stepped forward to be able to ensure our response is robust, comprehensive and above all safe and sustainable."



"Our Hazardous Area Response Team has deployed and additional flood team to the worst affected areas where they have undertaken a number of evacuations and rescues of people needing to be moved from their homes to a place of safety."

"We increased the number of 4x4 ambulances in our fleet during the winter period. They have been invaluable during this period and have been deployed and all are fully operational enabling our staff to reach patients they might otherwise struggle to reach as quickly as possible."

"I am immensely proud of everyone who has gone above and beyond to ensure we've delivered a collaborative and coordinated response to the areas affected."

"We've also continued to receive support from our volunteers who have been booking on additional hours in their local communities, for which I'm appreciative of too."

"The weather forecast for the coming days is for more rain which will fall onto already sodden ground."

"Very many staff have already volunteered to come to work to support their colleagues by cancelling rest days or annual leave during this week and into this weekend which I'm immensely grateful for."

Assistant Chief Ambulance Officer, Michelle Brotherton has been part of the multi-agency senior command team in West Mercia since Sunday.

She said: "We continue to operate a normal 999 service, despite the floods, and have additional ambulance crews on duty in the three counties."

"They are supported by additional staff in our control rooms but also the vehicle preparations staff and mechanics who keep our fleet running."

"We will also continue to send ambulance resources into affected communities to ensure we are able to respond to any concerns from local residents over the coming days."

"I would like to thank the many members of the community who have helped us during the last few days."

"From farmers who have used their tractors to help us get through flood waters to the offers of food and drink while our staff have been at the scene of incidents."

"These acts of kindness and community spirit is particularly touching especially when the offers of help have been from people who were either directly affected by flooding or were on the edge of such devastating effects, yet they took time to support our staff."

London Ambulance Service Appoints Syma Dawson as Director of Corporate Governance

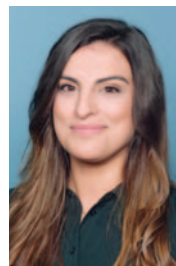
London Ambulance Service today announced that Syma Dawson will join the Trust as its new Director of Corporate Governance.

She joins us on 1 April from the Royal Marsden NHS Foundation Trust where she has led the corporate governance team for eight years as Associate Director of Corporate Affairs.

Syma has worked in a range of National Health Service organisations including the North East Ambulance Service where she was first struck by the invaluable contribution ambulance services make to the NHS.

Heading the Corporate Governance Directorate, Syma will be responsible for ensuring the right rules, processes and systems are in place so that the organisation performs effectively and lawfully.

Syma said: "I'm very much looking forward to joining London Ambulance Service and working



to ensure we provide the best possible care for patients.

"For me, good governance helps good decision making which means better performance and outcomes for patients."

"I am really excited about finding ways to continuously improve the care we provide and supporting the board to deliver its ambitious strategy for future services in London."

She will be taking over from Philippa Harding who leaves London Ambulance Service to pursue other opportunities at the conclusion of a two-year fixed-term appointment as Director.

Syma will report to Chief Executive Officer Garrett Emmerson who said:

"I'm delighted to welcome Syma to my leadership team and to London Ambulance Service."

"Syma has an impressive track record in corporate governance roles and the National Health Service more widely and I know she will bring that passion and leadership to our service."

"I would like to put on record my thanks to Philippa for the huge progress of recent years establishing effective and robust corporate governance across the organisation."

Syma graduated from Leeds University where she studied Politics and Parliamentary Studies, Political Science and Government. She is an Associate of the Chartered Governance Institute and a Chartered Secretary by qualification.

Welsh Ambulance Service Appoints New Executive Director of Finance and Corporate Resources

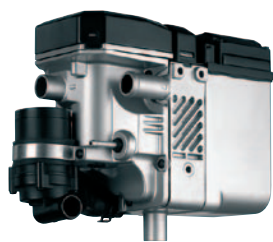
The Welsh Ambulance Service has appointed a new Executive Director of Finance and Corporate Resources.

Chris Turley has had a 30-year career in finance in NHS Wales, during which time he has served as interim Director of Finance at Aneurin Bevan University Health Board and Head of Finance for the NHS Wales Health Collaborative.

Chris, who is based in Cwmbran, joined the ambulance service in October 2015 as the Trust's Deputy Director of Finance, and has been the interim Executive Director of Finance and ICT since February 2018.

Along with being the Executive Director of Finance, Chris will hold the portfolio for all of the Trust's Corporate Resources, including Estates and Fleet, as well as being responsible for the Trust's capital programme and continuing implementation of the 111 service in Wales.





Webasto Engine Off Technology

Engine off/Preheat

Emergency vehicles must be in action all year round. But how can man and machine always stay at operating temperature, given the great variations in outdoor temperature? The most common solution in the past: Keep the engine running. The problem: fuel is wasted, engine wear-and-tear increased, operating costs increased.

The efficient alternative comes from Webasto. Thanks to its innovative Engine-Off Technology, the temperature stays constant in the optimum range for both man and technology, even with the engine switched off. Operational availability and driver convenience are ensured at all times. Best of all: cost savings are so enormous that the investment pays for itself within a single year

Environmentally friendly: The automatic Engine-Off Technology benefits the environment too. In a double sense. Thanks to the many engine pauses – and to the fact that only this new technology makes use of environment-friendly start-stop systems possible. With a constantly warm engine, restart comes off without a hitch.

Up to 90% less fuel consumption: In comparison with idling, considerably less fuel is consumed when the engine is not running. This can pay off in savings of up to 90%.

Diesel particulate filters stay clean longer: When idling, the combustion temperature for efficient operation of the filters is too low. So they soil and wear out much faster. Engine-Off Climate systems prolong the life of particulate filters.

Less wear-and-tear, less maintenance: Less idling also means less engine wear-and-tear. Engine running times are reduced and, due to fewer operating hours (up to 60%), less maintenance is required while achieving higher resale value.

For an informal chat, call
David Stafford on:
01302 381141 or email:
david.stafford@webasto.com



The future of ambulance control: genisys II

genisys II Series



Ring Carnation's 'genisys' has been the UK's A&E ambulance control system of choice since its launch in 2007. Many thousands of genisys systems have been deployed to reliably control NHS front line vehicles in the toughest of operational environments.

genisys has been continually evolved and improved by Carnation's highly skilled team of in-house engineers to maximise functionality and the system's ability to integrate with base vehicles and on-board electrical and communications systems.

Carnation's pursuit of control excellence led the brand to development of a more powerful, more flexible and even more user-friendly product line. A system which would offer end users and special purpose vehicle builders the capacity to control more complex vehicles and with greater ability to intelligently connect to third-party devices.

The new system was to feature advanced electronics – a faster processor, significantly increased on-board memory, more analogue inputs, a high efficiency audio amplifier – and packaged within a new, lightweight enclosure with an LCD screen in addition to genisys' trademark status indicator lamps. Detail features such as USB stick auto-upload were added to provide end users with the simplest and quickest way to upload program updates. All to be designed to comply with EMS vehicle standards including Reg10 and AES Spec 5.

The result of this, the most intensive new product development in Carnation's twenty-five year history, is the **genisys II Series** of control modules, designed and manufactured in Britain.

Carnation invite their valued customers to see the future of ambulance control at this year's Commercial Vehicle Show, NEC, 28th-30th April, stand 5C110.

For further information please contact:
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