

Decision-Making for UK Police on the Transportation of Casualties with Life-Threatening Injuries

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Abstract

There is currently no consensus or national guidance on the transportation casualties with life-threatening injuries by UK police officers. This paper highlights the issues that may affect the decisionmaking of UK police officers in this regard, specifically considering police first aid training, the legal context of police first aid and ambulance dispatch, and the current police decision-making model. The paper looks at the provision of prehospital care in various models and the transportation of casualties to hospital other than by ambulance. It seeks to stimulate discussion amongst those involved in police forces' clinical governance, encouraging the development of local guidance for frontline officers.

Introduction

Knife crime is on the rise in England and Wales, in terms of offences reported but also the number of patients treated in hospital arising from assault by sharp object, with the number of these classed as emergencies at the highest level since

2007 (Allen et al, 2019). Likewise, gun crime in England and Wales is also on the increase in terms of offences reported, and the number of injuries arising from non-air firearms is at its highest level since 2011 (Allen et al, 2020).

As such there are circumstances when UK police officers are faced with a severely injured person and are required to make a dynamic assessment of whether they wait for healthcare professionals to attend or whether they transport that person to hospital themselves.

Literature Review

Legal Aspects:

UK police officers may be uncertain of the legal basis under which they provide first aid (Chanda and Meakin, 2016). The learning objectives for police first aid training focus purely on the practical skills needed by officers (College of Policing, 2016) rather than any underpinning legal theory on when they are obliged to provide it.



UK police officers have a positive duty under Article 2 of the European Convention on Human Rights and Fundamental Freedoms, as incorporated into UK law by the Human Rights Act 1988 (Beggs et al, 2013). The police have a duty to protect life (College of Policing, 2018) but no general duty to provide first aid to the public.

When an injury occurs as a result of an interaction with UK police, particularly when this arises from the police use of force, there is a legal and moral duty to provide first aid. This is covered, as with any employer who has a duty to those who may be affected by their work, by the Health and Safety (First Aid) Regulations 1981, as applied to the police by the Police (Health and Safety) Act 1997. The Ten Key Principles Governing the Police Use of Force (HMIC, 2011) require the UK police to have adequate medical expertise to respond to harm caused by their use of force. At an international level, the duty to secure medical aid for those injured by the police use of force is covered by the Basic Principles on the Use of Force and Firearms by Law Enforcement Officials (OHCHR, 1990).

In Osman v United Kingdom (1998) the court recognised that Article 2(1) "enjoins the state... to take appropriate steps to safeguard the lives of those within its jurisdiction". It is recognised that not every

life at risk can be subject to state intervention as this would create a massive burden on the state, but it requires that the police take reasonable steps to prevent a real and immediate risk to life that they are aware of, or that they should reasonably be aware of (Beggs et al, 2013).

In 2017 the Independent Office for Police Conduct issued guidance to police forces, that where a death or serious injury was identified following contact with the police, there had to be some evidence or information to indicate that an act or omission on the part of the police either caused or contributed to the death or injury order to warrant a referral for investigation. They specifically identified that when officers were acting only as a first responder to a medical emergency or injury, even when the patient was seriously injured or subsequently dies, it would not constitute grounds for a referral (Sahota and Gledhill, 2019).

It is also relevant to look at legal obligations of the National Health Service ambulance trusts. Unlike the police, the ambulance service has a common law duty of care to the public at large, and once they accept a 999 call in relation to a patient they have a specific duty of care to the patient (Kent v Griffiths [2000] 2 WLR 1158). However, it is accepted that there may be legitimate reasons why there is a delay in an ambulance attending a casualty, and these



might include distance to travel or lack of resources due to demand.

Police First Aid

British police officers have been trained in first aid for over one hundred and forty years (East London Observer, 1878) and were amongst the very early adopters of the concept (Priolcar, 2012).

The UK police First Aid Learning Programme (College of Policing, 2016) has five modules. First aid for most police officers follows the Health and Safety Executive's Emergency First Aid at Work content guidance (TSO, 2013) and is known as Module 2.

Module	Descriptor
1	Basic Life Support
2	First Aid Skills Police: Health & Safety Executive Emergency First Aider at Work
3	First Aid Skills Custody
4	Health & Safety Executive First Aid at Work
5	Enhanced First Aid Skills

 Table 1: First Aid Learning Programme

 (College of Policing, 2016)

Module 2 includes learning objectives such as 'undertake a basic primary survey', 'take appropriate life-saving action', 'monitor condition and casualty continually reassess them' (College of Policing, 2016). Whilst the module does cover the management of bleeding it makes no specific reference to penetrating trauma that is not bleeding, although it does have an objective to 'apply an appropriate dressing if the wound affects the chest/lung cavity' (ibid) which implies a tacit objective of identifying such injuries.

In 2010, the then Association of Chief Police Officers, assisted by the Faculty of Prehospital Care of the Royal College of Surgeons of Edinburgh devised advanced set of casualty care skills, appropriate to higher risk policing situations (Hartley et al, 2017), subsequently incorporated into Modules 4 and 5 of the Police FALP (College of Policing, 2016) which is often mistakenly called 'D13' after the relevant section of the National Police Firearms Training Curriculum (College of Policing, 2013a) but Module 5 trained officers are found across policing specialisms. Whilst their casualty care training is primarily intended to discharge their legal and moral responsibilities in relation to use of force and the care of colleagues from a health and safety perspective, these officers more often use their advanced first aid training and equipment in routine policing situations



(Hartley et al, 2017 and Carr et al, 2017). Their training includes haemorrhage control, airway management (including the use of adjuncts), trauma, the recognition management of and breathing complications, common medical conditions, and oxygen administration (College of Policing, 2016). There is some variation nationally with some forces training officers beyond the required standard, for example equipping their Module 5 trained officers with analgesia (Carr et al, 2019).

In their examination of 66 patient report forms (PRFs) submitted by Module 5 trained firearms officers in two forces over a period of four years, Carr et al (2017) found that on-scene times ranged from five minutes to over an hour. About half of the PRFs saw officers managing a casualty for up to twenty minutes, with the other half being between twenty minutes and an hour, but the reasons for this were not They also found that chest injuries arose mainly from assaults and that 8.9% of casualties received chest seals. Chest trauma encountered by the police medics was a mixture of isolated and multiple penetrating injuries. Hartley et al (2017) examined 236 PRFs from five forces' armed officers over five years and found that 17.7% of casualties encountered had a stab wound, and 11% had gunshot wounds. Chest seals were applied to 7.6% of casualties. Both papers acknowledge that the numbers of PRFs examined are likely to be underrepresentative of the true number of incidents encountered by officers.

Prehospital Transport

Haas and Nathens (2008) and Smith and Conn (2009) looked at 'scoop and run' versus 'stay and play' in prehospital care, and whilst the terminology presents a very simplistic binary approach to what is a very complex issue, both papers identified that time spent on scene at an incident is not always to the patient's advantage, and can even be detrimental. Similar findings were made by Gonzalez et al (2006), Feero et al (1995) and Birk and Henriksen (2012). Harmsen et al (2015) found specifically that the difference in mortality specifically commended swift transport for patients neurotrauma with and those with haemodynamically unstable penetrating trauma.

In the US, Demetriades el al (1996) studied 5782 major trauma patients at an urban level one trauma centre. Of these, 4856 patients had been conveyed by ambulance and 926 were transported other means, such as by friends, family, bystanders or the police. Adjusting the results to accommodate various non-transport factors, they found that those who were transported by private means had a higher rate of survival. With specific regard to



gunshot wounds, Zafar et al (2014) found that mortality may be higher for casualties transported by ambulance rather than by private vehicle.

In 1996, Philadelphia Police the Department - acting in response to increase unofficial police transporting injured people, as violent crime demand outstripped local ambulance resources introduced a policy that "any person with a serious penetrating wound or a blunt trauma to the body will be transported to the nearest accredited trauma centre". In the case of the penetrating trauma only, "Police personnel will transport... persons suffering from a serious penetrating wound e.g. gunshot, stab wound or similar injuries of the head, neck, chest, abdomen, and groin" stressing that "Transportation of such cases will not be delayed to await the arrival of Fire Department paramedics." (Philadelphia Police Department, 2010). The directive also contains the safeguard that police personnel will accompany the casualty in the rear of the vehicle. The hospital is pre-alerted by the police control room that the casualty is on route (ibid). Between 2003 and 2007 two studies were performed (Band et al, 2010 and Band et al 2014) with two distinct but overlapping patient groups of 2127 and 4122 patients respectively, with proximal penetrating trauma at level one and two trauma centres across Philadelphia. In adjusted models, there was no significant different in overall mortality between those patients transported by police and those transported by ambulance. In sub-group analysis, those patients who had severe injuries, gunshot wounds or stab wounds were more likely to survive if transported by police.

Wandling et al (2016) expanded on the research performed by Band et al (2010 and 2014) to look across the whole of the US, using the nationwide National Trauma Databank to identify 88,564 casualties with stab or gunshot injuries who had been seen at level one or two trauma centres over a two-year period, 2010 to 2012. Of these, 97.2% were conveyed to the hospital by EMS and 2.8% by police. Of the police transports, 87.8% were in Philadelphia, Sacramento and Detroit. After adjusting for mortality risk, there was no difference in mortality between those transported by police or EMS. Of note in both Band et al and Wandling et al, is that the unadjusted mortality was higher for those transported by police but this was found to be because the police were transporting more seriously injured casualties.

National Decision Model

Kilner and Hall (2004) identified that with basic training and support material for reference, police officers were capable of making good judgements about the



severity of injuries in both tactical and nontactical situations.

It has previously been noted that police officers may make decisions according to what they think will be perceived as acceptable to their superiors with hindsight, rather than what is necessarily right at the time (Edwards, 2012). As the Prussian strategist Carl Von Clausewitz (Von Clausewitz et al, 1984) notes, "It is even better to act quickly and err than to hesitate until the time of action is past" and whilst this should not be taken as 'top cover' for every poor decision taken in haste, it highlights the need for a decision-making model that allows police officers to make quick decisions but, in concert with Edwards' observations, those decisions need to be the right ones, yet ones that will stand scrutiny with hindsight.

In 2011, the then Association of Chief Police Officers launched the National Decision Model, known as the NDM (Lander, 2011). The spontaneous and retrospective application of the NDM to meet the needs identified by Edwards and Clausewitz is acknowledged by the College of Policing (2014). The risk to the reputation of the police or an individual officer should always be secondary to the responsibility to save life (College of Policing, 2013b) and officers are taught that where there is a higher likelihood of

serious harm, greater effort should go into mitigating that risk (ibid).



Figure 1: The National Decision Model (College of Policing, 2014)

The NDM has not been validated as a medical decision-making tool, but is acknowledged as central to the UK public sector (Wilkinson et al, 2019), will be familiar to police officers, and is the lens through which UK policing decisions are examined and challenged retrospectively (College of Policing, 2014).

The NDM encourages officers to gather information and intelligence, assess what they already know and acknowledge what they don't know or may wish to know in order to assist in their decision-making before assessing the likelihood, seriousness and immediacy of risk, both to individuals but also to organisational reputation and public trust (Ibid). From this comes a working strategy, which will usually have minimising the risk of harm to the public as a primary objective (ibid).



Officers will then consider their legal powers and policies in respect of the issue at stake, the ones relevant to first aid being outlined above. With the strategy set, and legal considerations made, the officer will identify options and contingencies, which will include possible courses of action but also discount others, it being important to consider the practicalities but also the potential for harm that may arise from the decision (College of Policing, 2014). Action is then taken and reviewed, and the cycle begins again. At the heart of the model, and influencing each stage, is the Code of Ethics, derived from the Seven Principles of Public Life (Nolan, 1995) which includes accountability, integrity, objectivity and selflessness.

Emergency decision-making is often recognition-primed (Klein et al, 1989). Studies of the NDM phases in the context of emergency decision-making by senior firefighters shows that very little time is spent on considering powers and identifying options, with the majority of time gathering information, developing strategy and action-taking (Wilkinson et al, 2019).

Considerations for a Medical Decision-Making Model

There is evidence, albeit it only from observational studies, and from the US which has different law enforcement and prehospital systems, that shows that police transport of life-threatening casualties, specifically in cases of penetrating trauma, does not result in increased morbidity may in fact result in reduced morbidity. There is evidence that on-scene time that adds no value to the patient contributes to mortality.

There may be some concern that police transporting casualties constitutes 'mission creep' (i.e. an increase of work, primarily into the realm of another agency), that it creates issues of liability, or it increases the potential for officers to be investigated by police watchdogs but, real as the concerns may be for officers, no evidence could be found to substantiate these.

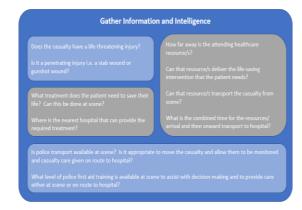
As the Code of Ethics (Nolan, 1995) indicates, decisions should be based on evidence and professional judgement. The NDM provides a decision-making model that officers can apply to a wide variety of situations from use of force through to purchasing.

Whilst the factors considered in the NDM cycle will be different for every incident, key information for each stage could be pre-identified and disseminated to officers in training, allowing them to make quicker decisions that are NDM-compliant but acknowledge the default to recognition-primed thinking in emergencies. It is proposed that by combining the clinical evidence, and with an understanding of the



NDM, those responsible for UK police forces' clinical governance could create local guidance around their officers transporting casualties with life-threatening injuries.

The following questions are proposed for the consideration of UK police clinical governance providers to design guidance to, and support material for, police officers, enabling those officers to make a transparent and ethical transportation decisions in the best interests of the patient.









Clearly some of the information in the 'Gather Information and Intelligence' section will not be immediately available to the officers at the scene, such as the estimated time of arrival. Communication between the officers at scene and the ambulance service would normally be via their personal radio to the police control room who then relay messages to the ambulance control room by phone. The call handler in the ambulance service may not be in possession of the relevant information to assist in answering the question-set, and so for timely and accurate relay of the necessary information to the officers at scene it would be ideal for the officers to be able to talk directly to the ambulance service control supervisor, trauma cell or specialist resource dispatcher, whichever is most appropriate in that trust. It must be noted that the



ambulance service may not condone or advise police transport without having their own clinical decision maker on scene, and it is unlikely to form part of their protocols. They may be mindful of their own legal responsibilities as per Kent v Griffiths [2000] 2 WLR 1158. The adoption of clear clinical-governance-led protocols about the transportation of time-critical patients by the police could be integrated into local ambulance service processes to negate this potential area of conflict, and potentially even lead to more complex joint decision-making on other transportation pathways, such as initial police transport of casualties to be met on route by healthcare professionals either for prehospital treatment, onward transportation or a combination of the two.

In order to be in the best position to make decisions, it would be advantageous for officers, particularly those trained to Module 5, to be aware of the skillsets of other prehospital responders in their local systems, and the capabilities and services of their local hospitals, thereby being able to answer more of the question-set without recourse to a third party. Likewise, there would be benefit to the ambulance trust being aware of police skillsets and any transport policy decided upon.

Conclusion

Further research is needed, through reporting by UK police officers, to understand the prevalence of incidents at which this question-set and police transport could be applied in the UK, especially given the lack of any data on the application of first aid by Module 2-trained officers. More comprehensive research into the work of Module 5-trained officers, ideally using a larger PRF sample size, would be useful in better understanding the need for police transport protocols; this would be assisted by a nationally-agreed data set to enable 'like for like' comparison across forces.

The issues discussed in this paper could be used by those responsible for UK police forces' clinical governance to consider their local policies and procedures, and if a decision is made to progress the subject in practical terms the question-set could be used to enhance existing Module 5 police first aid training and aide memoirs to assist in making sound judgements.

No policy or procedure can cover every eventuality, and each incident must be subject of its own NDM assessment. However, as a general principle, if:

 in the judgement of the officer immediate hospital treatment is necessary to save a life and,



- the transport time to hospital would be less than either waiting for an ambulance or a healthcare professional who can perform the required intervention at the roadside and,
- a suitable police vehicle is available to transport the casualty which would allow an officer to monitor and treat the casualty on route

(cont.) then police transport to hospital, or police transport to rendezvous with a healthcare professional who could provide a life-saving intervention to the patient whilst on route to hospital, would defensibly be in the casualty's best interests. This is particularly the case with penetrating thoracoabdominal trauma such as stab wounds and gunshot wounds. Where possible this should be done in consultation with the ambulance service trauma cell and the hospital pre-alerted.

Testing of the question-set through simulation and retrospective application to case studies may assist in confirming that the evidence, as applied by clinical governance providers in an NDM format, is useful to officers and beneficial to patient outcomes.



References

Allen, G., Audickas, L., Loft, P. and Bellis, A. (2019), Briefing Paper Number SN4304 Knife Crime: England and Wales, House of Commons Library, 30th September 2019, https://researchbriefings.files.parliament.uk/documents/SN04304/SN04304.pdf, accessed 20/07/2020

Allen, G., Audickas, L. and Loft, P. (2020), Briefing Paper Number CBP7654 Firearm Crime Statistics: England and Wales, House of Commons Library, 24th March 2020, available at https://researchbriefings.files.parliament.uk/documents/CBP-7654/CBP-7654.pdf, accessed 20/07/2020

Band, R.A., Pryor, J.P., Gaieski, D.F., Dickinson, E.T., Cummings, D. and Carr, B.G. (2011), Injury-adjusted Mortality of Patients Transported by Police Following Penetrating Trauma, *Academic Emergency Medicine*, 18(1), p.32 - 37, available at https://onlinelibrary.wiley.com/doi/full/10.1111/j.1553-2712.2010.00948.x

Band, R.A., Salhi, R.A., Holena, D.N., Powell, E., Branas, C.C. and Carr, B.G. (2014), Severity-adjusted mortality in trauma patients transported by police, *Annals of Emergency Medicine*, 63(5), p.608 - 614, available at https://www.sciencedirect.com/science/article/pii/S0196064413015825

Beggs, J., Thomas, G. and Rickard, S. (2013), *Public Order: Law and Practice*, Oxford University Press, Oxford, United Kingdom

Birk, H.O. and Henriksen, L.O. (2012), Prehospital Interventions: On-scene Time and Ambulance-Technicians' Experience, *Prehospital and Disaster Medicine*, 17 (3), p.167 – 169, available at https://www.cambridge.org/core/journals/prehospital-and-disaster-medicine/article/prehospital-interventions-onscenetime-and-ambulancetechnicians-experience/A1988514F2DBEA7068EDA13E406F0E43, accessed 17/07/2020

Bishop, A (2015), Risk Management in Policing, in Wankhade, P and Weir, D. (eds), *Police Services*, Springer, available at https://doi.org/10.1007/978-3-319-16568-4_7, accessed 07/10/2020



Carr, G., Doyle, P., Wheatley, S., Kyle, T. and Mellor, A. (2017), Durham and Cleveland police firearms unit tactical team medics: lessons from the first six years, *Journal of Paramedic Practice*, 9(8), available at https://doi.org/10.12968/jpar.2017.9.8.330, accessed 17/07/2020

Carr, G., Kyle, T., Wheatley, S., and Mellor, A. (2019), A tactical analgesic option for Durham and Cleveland police firearms medics: the journey, *Journal of Paramedic Practice*, 11(2), available at https://doi.org/10.12968/jpar.2019.11.2.61, accessed 17/07/2020

Chanda, J.S. and Meakin, R. (2016), Do special constables in London feel that they are adequately prepared to meet their first aid responsibilities? A qualitative study, *BMJ Open*, 6(1), available at

https://bmjopen.bmj.com/content/6/1/e010082?utm_source=trendmd&utm_medium=cpc&utm_campaign=allijs&utm_content=americas&utm_term=1-B, accessed 17/07/2020

College of Policing (2013a), *Armed Policing Authorised Professional Practice*, available at https://www.app.college.police.uk/app-content/armed-policing/national-police-firearms-training-curriculum/, accessed 17/07/2020

College of Policing (2013b), *Risk Authorised Professional Practice*, available at https://www.app.college.police.uk/app-content/risk-2/risk/, accessed 17/07/2020

College of Policing (2014), *National Decision Model Authorised Professional Practice*, available at https://www.app.college.police.uk/app-content/national-decision-model/, accessed 17/07/2020.

College of Policing (2016), *Police First Aid Learning Programme*, College of Policing, Harrogate, United Kingdom, available at https://www.college.police.uk/FOI/Documents/FOIA-2017-0011-Combined.pdf, accessed 17/07/2020

College of Policing (2018), *Operations Authorised Professional Practice*, available at https://www.app.college.police.uk/app-content/operations/operational-planning/core-principles/#role-of-the-police, accessed 17/07/2020



Demetriades D, Chan L, Cornwell E, et al. (1996), Paramedic vs Private Transportation of Trauma Patients: Effect on Outcome, *The Archives of Surgery*, 131(2), p.133 - 138, available at https://jamanetwork.com/journals/jamasurgery/article-abstract/596432

East London Observer (1878), The Police Ambulance Class, *East London Observer*, 20th July 1878, available at

https://www.britishnewspaperarchive.co.uk/viewer/bl/0000442/18780720/005/0002, accessed 17/07/2020

Edwards, J. (2012), *Ethical decision-making: a treatise into the role of ethics in 21st century policing*, London Metropolitan University, available at https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.573379, accessed 17/07/2020

Feero, S., Hedges, J.R., Simmons, M.S. and Irwin, L. (1995), Does out-of-hospital EMS time affect trauma survival? *The American Journal of Emergency Medicine*, 13(2), p.133 – 135, available at https://www.sciencedirect.com/science/article/abs/pii/0735675795900780, accessed 17/07/2020

Gonzalez, R.P., Cummings, G.R., Phelan, H.A., Mulekar, M.S. and Rodning, C.B. (2006), Does increased emergency medical services prehospital time affect patient mortality in rural motor vehicle crashes? A statewide analysis, *The American Journal of Surgery*, 197(1), p.30 – 34, available at

https://www.sciencedirect.com/science/article/abs/pii/S0002961008002699, accessed 17/07/2020

Haas, B. and Nathens, A.B. (2008), Pro/con debate: Is the scoop and run approach the best approach to trauma services organization, *Critical Care*, 12, Article 224, available at https://ccforum.biomedcentral.com/articles/10.1186/cc6980, accessed 17/07/2020

Harmsen, A.M.K., Giannakopoulos, G.F., Moerbeek, P.R., Jansma, E.P., Bonjer, H.J. and Bloemers, F.W. (2015), The influence of prehospital time on trauma patients outcome: A systematic review, *Injury*, 46(4), p.602 – 609, available at https://www.injuryjournal.com/article/S0020-1383(15)00012-1/fulltext, accessed 17/07/2020

Hartley, F., Howells, A., Thurgood, A., Hall, F.J. and Porter, K.M. (2017), Medical training for police officers in a specialist role (D13): A retrospective review of patient report forms from



2010 – 2015, *Trauma*, 20(1), available at https://doi.org/10.1177/1460408617707548, accessed 17/07/2020

HMIC (2011), *The Rules of Engagement: A Review of the August 2011 Disorders*, available at https://www.justiceinspectorates.gov.uk/hmicfrs/media/a-review-of-the-august-2011-disorders-20111220.pdf, accessed 17/07/2020

Kent v Griffiths [2000] 2 WLR 1158

Klein, G. A., Calderwood, R., and MacGregor, D. (1989), Critical decision method for eliciting knowledge, *IEEE Transactions on Systems, Man and Cybernetics*, 19, available at https://doi.org/10.1109/21.31053, accessed 06/10/2020

Lander, P. (2011), ACPO launches decision model for all policing, *Police Professional*, 12th May 2011, available at https://www.policeprofessional.com/news/acpo-launches-decision-model-for-all-policing/, accessed 17/07/2020

Menzies, D., O'Neill, S., Leonard, J., Butcher, P., Creevy, P. and Irwin, D. (2018), Advanced Paramedic Delivered Finger Thoracostomy, *Irish Journal of Paramedicine*, 3(2), available at http://irishparamedicine.com/index.php/ijp/article/view/129/183, accessed 17/07/2020

Nolan, M., Boulton, C., King, A., King, T., Shore, P., Thomson, G.T., Uttting, W., Warburton, A. and Warwick, D. (1995), *Standards in Public Life*, HMSO, London, available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_da ta/file/336919/1stInguiryReport.pdf, accessed 17/07/2020

OHCHR (1990), Basic Principles on the Use of Force and Firearms by Law Enforcement Officials, available at

https://www.ohchr.org/en/professionalinterest/pages/useofforceandfirearms.aspx, accessed 17/07/2020

Osman v United Kingdom [1998] 29 EHRR 245

Philadelphia Police Department (2010), *Directive 3.14*, available at http://www.phillypolice.com/assets/directives/D3.14-HospitalCases.pdf, accessed 17/07/2020



Priolcar, X. (2012), First-aid at workplace – past, current and future, *Indian Journal of Occupational and Environmental Medicine*, 16(1), available at <u>10.4103/0019-5278.99678</u>, accessed 17/07/2020

Roycroft, M. (2019) Why Understanding Police Investigative Decision Making Is Important in Roycroft, M. and Roach J. (eds) *Decision Making in Police Enquiries and Critical Incidents*. Palgrave Pivot, London, available at https://doi.org/10.1057/978-1-349-95847-4_1, accessed 07/10/2020.

Sahota, H. and Gledhill, P. (2019), *My patient died.... will the IOPC be involved*? presented at the College of Policing First Aid Development Event, Ryton, United Kingdom, 26/09/2019

Smith, R.M., and Conn, A.K.T. (2009), Prehospital care – Scoop and run or stay and play, Injury, 40(4), s.23 – 26, available at https://www.injuryjournal.com/article/S0020-1383(09)00553-1/pdf, accessed 17/07/2020

TSO (2013), First Aid at Work: The Health and Safety (First Aid Regulations 1981, Guidance on Regulations, TSO, available at https://www.hse.gov.uk/pubns/priced/l74.pdf, accessed 07/10/2020

Von Clausewitz, C., Howard, M., Paret, P., & Brodie, B. (1984), *On War*, Princeton University Press, Princeton, New Jersey, United States of America

Wandling, M.W., Nathens, A.B., Shapiro, M.B. and Haut, E.R., (2016) Police transport versus ground EMS: a trauma system-level evaluation of prehospital care policies and their effect on clinical outcomes. *Journal of Trauma and Acute Care Surgery*, 81(5), p.931 - 935, available at

https://journals.lww.com/jtrauma/Abstract/2016/11000/Police_transport_versus_ground_EMS__A_trauma.19.aspx, accessed 16/07/2020

Wilkinson, B., Cohen-Hatton, S.R. and Honey, R.C. (2019), Decision-making in multi-agency group at simulated major incident emergencies: In situ analysis of adherence to UK doctrine, *Journal of Contingencies and Crisis Management*, available at https://doi.org/10.1111/1468-5973.12260, accessed 06/10/2020



Zafar, S.N., Haider, A.H., Stevens, K.A., Ray-Mazumder, N., Kisat, M.T., Schneider, E.B., Chi, A., Galvagno Jr, S.M., Cornwell 3rd, E.E., Efron, D.T. and Haut, E.R., 2014. Increased mortality associated with EMS transport of gunshot wound victims when compared to private vehicle transport, *Injury*, 45(9), p.1320 - 1326, available at https://www.sciencedirect.com/science/article/pii/S002013831400271X