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The ethics of declining or delaying patient transport in a non-emergency pre-hospital environment

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The second category is patients that have sustained severe injuries but are not immediately life threatening and should be treated with priority. The third category are patients that have sustained minor injuries but can wait for medical treatment and the last category are patients that did not survive, and any form of medical treatment is futile. This form of categorizing patients when resources are limited can be considered to be the most fair and does not involve making judgements on the individual's social worth.

In certain cases, social worth can be considered but only in situations where the person plays a vital role in improving the medical outcome of others (Beauchamp & Childress 2013, p 292). In the latter case, an example would be another health care worker that may require medical attention first, so that the health care worker is available to assist with patient treatment.

2.3.2 Types of triage systems

There are various types of triage systems that exist globally. Although each triage system may have been adapted for a specific country, they have a similar coding and grading system according to the patient's medical condition. Beauchamp and Childress (2013) state that triage decision appeals more to "medical utility" rather than "social utility" in that patients are sorted according to their medical needs and are classified by the severity of their injuries. Beauchamp and Childress (2013) classify the medical need into "patients that have major injuries and will die without immediate medical attention are treated first, those whose treatment can be delayed and are not in immediate danger are treated second, those with minor injuries are ranked third and those who's for whom no treatment will be efficacious are ranked fourth".

Augustyn, et.al (2007) list the various types of triage such as disaster triage, battlefield triage and hospital triage. During disasters, there are two rounds of triage.

The first round determines whether the patient is alive and the healthcare practitioner establishes the likelihood of patient survival. The patients are categorized from immediate life threatening to critically injured where treatment would be futile. The second round, in-hospital triage, is not relevant here, as this study focuses on the ambulance practitioner and the first round of triage which occurs on-scene.

Iserson and Moskop (2007), state that "triage" is the sorting of patients for treatment in a modest resource scarce environment. An assessment of the patient's condition is conducted and an established sorting plan is applied. Furthermore, they list the five most common types of triage as: emergency department, inpatient intensive care unit, incident multi-casualty, military battlefield and disaster mass casualty.

Two examples of triage systems utilized universally are the Manchester Triage Score (MTS) used in the United Kingdom and the Australian Triage Score (ATS) that both use a numerical classification system from 1 - 5. Both systems are based on 52 complex sets of algorithms, the application of which requires extensive training and practice. Gottschalk (2004) argues that the Manchester Triage System is unwieldy and requires extensive patient assessments times which would not be practical in a South African context. In South Africa the common triage system is based on a classification of colours (mainly used in hospitals) and priorities (P) for ambulances as per the ambulance triage coding table below (table 2) (Gottschalk, 2004).

Ambulance Triage coding				
Colour Coding	Urgency	Mobility	Physiology	Priority Coding
Red	Immediate	Stretcher	Unstable	P1
Yellow	Urgent	Stretcher	Stable	P2
Green	Stable	Walking	Stable	P3
Blue	Dead	n/a	n/a	P4

Table 2: Source: Gottschalk, S., 2004. Triage a South African perspective

According to Gottschalk (2004) there is "considerable variation in ambulance triage nomenclature within South Africa: 'red/yellow /green/ blue' versus 'priority 1 / priority 2 / priority 3 / priority 4' (Table I). 'Blue' may mean completely stable or dead.

These terms are interpreted differently, resulting in wide variation and disagreement in the priority coding number". Additionally there is a lack of uniformity and continuity in the ambulance triage process in South Africa.

The South African Triage Scale (SATS) was developed to be used throughout South Africa. The benefits of the SATS are: (1) it expedites the delivery of time critical treatment for patients in a life threatening situation, (2) it ensures all people requiring emergency care are categorized according to their clinical condition, (3) it improves patient flow and satisfaction, (4) it decreases the patients overall stay in an emergency centre, (5) it facilitates the streaming of less urgent patients and (6) it provides a user friendly tool for all levels of health care professional (Twomey, et.al. 2011).

Although the SATS is primarily aimed at in-hospital environments, its use is also intended for the pre-hospital environment. According to the SATS manual 2012 section 8 "it's the daily application of triage principles in the despatch of ambulance

resources where it has the most benefit. In these scenarios, triage permits the EMS despatcher to apply rules based decision making to what is an otherwise impossible choice. The pre-hospital use of triage in the field varies from region to region, but is generally categorised into four priorities (represented by the colours red, yellow, green and blue). Such triage typically uses instability of vital signs to differentiate high from low priority patients.

Discrepancies in triage appear when personnel of differing levels of medical experience and qualifications need to assess patients as there are no clear definitions of 'unstable' physiology. The terms 'stable and 'unstable are poorly understood and fail to accurately reflect the patient's clinical condition". It becomes more complicated to choose whether or not to transport a patient when the patient presents no signs of obvious medical necessity.

The question is: what criteria does the call centre or ambulance practitioner use to make a decision as to who must get treated and transported first?

In South Africa, little research has been undertaken about the ability of the ambulance practitioner to triage patients and to decide whether to decline or delay. The literature reviewed from The United States and The United Kingdom reported varying results, but conclusions were similar as discussed in the following section.

2.4 Research relevant to non-transportation of patients

Little research has been published in South Africa concerning the non-transportation of patients who are not a medical emergency, including whether or not ambulance practitioners are able to accurately determine a patient's need to be transported to a hospital emergency department (ED). Literature reviewed from the United States and United Kingdom focuses on non-transportation of patients and ambulance response

and are discussed here. Schmidt et al, (2000) evaluated protocols allowing EMS to determine the need for treatment and transportation. They concluded that 21% of patients for whom an ambulance arrived on scene did not need ambulance transport, but 3-11% of these patients were under-triaged because the EMT did not follow the correct protocols. Gray and Wardrope (2007) focused their research on introducing non-transport guidelines into an ambulance service.

The guidelines developed four conditions for non-transportation they are (1) no apparent injury, (2) resolved hypoglycaemia in a known diabetic, (3) resolved fit in a known epileptic, and (4) minor limb injury. They concluded by stating that these guidelines were used correctly 60% of the time, and that more focused guidelines produce greater adherence and can support non-transportation decisions by ambulance crews.

Schmidt and Handel et al. (2006) evaluated an EMS initiated non-transportation system, and concluded that when the EMS-initiated non-transportation is determined by age and chief complaint, it does not result in significant mortality.

Snooks et al. (2004), reviewed literature concerning (1) the profile and outcomes of patients attended but not conveyed by ambulance crews, (2) the ability of ambulance crews to triage patients to non-conveyance or transportation to alternative receiving facilities and (3) the effectiveness and safety of protocols allowing ambulance crews to leave patients on-scene. Their research found that a minority of patients left at home are at risk of deterioration and that research evidence concerning the benefits of triage by ambulance crews on scene to decide on appropriate treatment is lacking. Additionally, protocols used did not increase the percentage of patients left at home.

Snooks et al. (2004) concluded that there were some safety concerns about not transporting patients to an emergency department and that more decision support and training of ambulance crews was needed. Mason et al. (2007) conducted research into the "effectiveness of paramedic practitioners in attending 999 calls from elderly people in the community", and concluded that paramedics with extended skills training can manage patients with minor acute conditions and can provide an effective alternative to emergency department transportation and treatment.

In Gray and Walker's (2008) retrospective review of elderly patients suffering from falls and breathing problems who were attended to on scene by paramedics found that paramedic practitioners can prevent emergency department attendances by providing clinical management to patients at point of access. In nearly all cases that were reviewed the consensus was that there were benefits to non-transportation for the EMS as it reduced ambulance call-outs, reduced subsequent admissions to emergency departments and hospitals and that with strict compliance and adherence to protocols, ambulance crews can effectively triage low acuity patients for non-transportation.

One exception to this was the study by Snooks et al. (2004) which showed that there is a possibility to under triage patients and that there are safety concerns relating to not transporting patients to an emergency department. Millen et al. (2011) outlined EMS provider determinations of medical necessity and the provision of on-scene medical care without transport. Their research suggested that some of the data was encouraging enough to suggest that EMS systems with exceptional educational resources, strong medical oversight and quality management programs may be able to implement paramedic initiated non-transportation.

These findings, in combination with the ethical arguments above, lead to the conclusion that permitting decisions to decline or delay transportation of patients may have both ethical and practical advantages, given certain conditions.

These conditions are further discussed in the section on recommendations. The following chapter moves from questions of ethics and practicality of permitting decisions to decline and delay, to questions of the legality and constitutionality thereof.

CHAPTER 3: THE CONSTITUTION AND ITS RELEVANCE TO DECLINING OR DELAYING PATIENT TRANSPORT

South Africa's Constitution is its supreme law and defines the duties and outlines the responsibilities of its citizens and the Government. The Constitution of South Africa and the National Health Act, 2003 (Act No.61 of 2003) formulate the various laws and acts that govern the healthcare profession and the persons working within the health environment.

Ambulance practitioners are further regulated by the Health Professions Act, 1974 (Act No.56 of 1974) which defines the scope of practice for the profession of emergency care. The act defines "emergency care" as the rescue, evaluation, treatment and care of an ill or injured person in an emergency care situation and the continuation of treatment and care during the transportation of such person to, or between healthcare establishment(s).

Of particular importance to the ambulance practitioner is section 27 of the Constitution. Section 27 (1) (a) states that "everyone has the right to have access to healthcare services, including reproductive health care". Section 27 (2) states that "The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights" and Section 27 (3) states that "no one may be refused emergency medical treatment". One implication of these clauses regarding emergency treatment is that ambulance practitioners are legally obligated to transport patients in an emergency. Thus, in determining whether ambulance practitioners are legally forbidden to decline or delay transport, it is important to define the term emergency.

This helps to clarify the cases in which declining or delaying would conflict with the obligation to provide emergency services.

Section 27 (3) does not specifically define what emergency medical treatment is, and that the current definition is too broad. For the purposes of this report, references to a doctor working in an emergency department or an ambulance linked to an emergency medical service are the same in context of them both providing "emergency medical treatment". In this chapter I will define what a medical emergency is and discuss the implications of this definition for the ambulance practitioner when declining or delaying patient transport.

3.1 The distinction between an Ambulance Service and an Emergency Medical Service

There is a distinction between an Emergency Medical Service (EMS) and an ambulance service. Carstens and Pearmain (2007) refer to the term “emergency medical services” in the health care environment and report that it “tends to focus attention on health care services, infrastructure such as trauma units and the manner in which such units are equipped.”

Ambulance services and those that operate them fall under the definition of an emergency medical service, but the scope of practice is narrower: An ambulance service is an organization dedicated to providing out-of-hospital acute medical care and transportation to a healthcare establishment. The term “emergency medical services” encompasses a wider variety of services than an ambulance service does.

3.2 The definition of a medical emergency

The provision of emergency services by the pre-hospital emergency practitioner or ambulance service is a central theme of this study. Thus, it is important to explain what constitutes a medical emergency which falls under the medical emergency ambit as defined in the South African Constitution.

There are various definitions of a medical emergency. According to Carstens and Pearmain (2007, p.160) if the definition of "emergency" is too broad, it would result in an overcrowded emergency department thereby stretching resources even though treatment of some of these cases could be deferred. Additionally, what constitutes a medical emergency may vary considerable between a layperson and a medically trained person. Most definitions agree, however, that it involves a person with acute injury and illness. The Medical Schemes Act 1998 (Act No. 131 of 1998), defines a medical emergency condition as "the sudden and, at the time, unexpected onset of a health condition that requires immediate medical or surgical treatment, where failure to provide medical or surgical treatment would result in serious impairment to bodily functions or serious dysfunction of a bodily organ or part, or would place the person's life in serious jeopardy". This definition could be considered as being too clinically specific because it refers to an acute health condition which would result in a serious life threatening condition or bodily impairment. Conversely, many less severe medical conditions not immediately life threatening such as mild asthma or hypoglycaemia could be treated and reversed by the ambulance practitioner in a pre-hospital environment without needing to transport the patient to a hospital.

Ultimately, the nature of medical emergency, its severity and whether hospital transfer is required can only be truly determined when the EMS crew arrive at the patient.

Kramer (2008) recognises that some conditions, such as a patient presenting with a mild attack of acute asthma, can be treated at home. But if the condition does not improve it can progress to a medical emergency which would then require an ambulance to transport the patient to a hospital. Kramer (2013. p. 54) states, “It therefore mandates the medical fraternity, not the legal profession, to consider and redefine what medically constitutes an appropriate definition of a medical emergency in modern-day South Africa for purposes of the Constitution section 27(3).".

The opinion of what constitutes a medical emergency differs among the medical fraternity, the legal fraternity and the general public. It is therefore critical that a policy of evaluation is established to define what comprises as emergency medical care and when a patient can be classified as either an emergency or non-emergency. Razzak and Kellermann (2002), share a consensus on what constitutes a medical emergency; it is an acute event that requires rapid intervention. They state the following: "Emergency medical care focuses on the provision of immediate or urgent medical interventions. It includes two major components: medical decision-making, and the actions necessary to prevent needless death or disability because of time-critical health problems, irrespective of the patient's age, gender, location or condition".

On the other hand, Becker et al. (2013) take the definition of emergency medical care further as they assume the average person understands the meaning of emergency. They argue that the patient is a "prudent layperson" and being a prudent layperson implies that they understand and have an "average knowledge of health and medicine", and therefore should be able to evaluate what comprises a "non-emergent" condition, thereby facilitating a decline in unnecessary ambulance calls.

It can be argued that not all South African patients are that discerning or are "prudent laypersons". Becker does not provide a definition of what a "prudent layperson" is. I would classify a "prudent layperson" to be a person with reasonable knowledge of right and wrong, they would have a basic understanding of their health status and they understand what a medical emergency is.

To refine the definition of a medical emergency, it's important to understand what "emergency medical treatment" means as stated in the Constitution section 27(3). I do not critique the Constitution s27(3) and the Health Act 61 of 2003 here. They are discussed because both acts refer to a medical emergency in its broadest sense and thus are relevant to the EMS and ambulance service. When the term "emergency medical treatment" is applied to the function of the EMS it could imply that the EMS is classified as an emergency service and that an ambulance must be sent to every call received by the call centre. Carstens and Pearmain (2007, p.158) raise questions on the structuring of section 27. They ask why s27(2) was not placed as the final provision which would then have included "emergency medical treatment" as a right. If the rights in s27(2) specifically refers to "these rights", which would be health care services, reproductive health, social security, and sufficient food and water, would "emergency medical treatment" be excluded from these rights and is "emergency medical treatment" limited by the availability of resources. If so, would it be acceptable for an ambulance service to ration the available ambulances by choosing to respond to the emergency medical calls first and non-emergency calls thereafter.

Section 27(2) states that the State must take reasonable measures to realise the rights listed in s27(1) however this does not include s27(3). Kramer (2008) argues that s27(3) is an universal and absolute right and that the patient is entitled to a minimum of basic emergency care.

Kramer (2008) also argues that in Soobramoney v. Minister of Health, KwaZulu-Natal 1998 (1) sa 765 (cc), the logical sequencing of the sections were interpreted haphazardly. The Constitutional court argued that 27(3) cannot be practically enshrined as an absolute right but is subject to s27(2). The Soobramoney case was the first Constitutional Court case that attempted to define a medical emergency although, according to Carstens and Pearmain (2007, p.330), it did not give a precise definition of emergency treatment but rather highlighted what emergency medical treatment did not include, such as a chronic condition.

3.2.1 The case of Soobramoney v. Minister of Health, KwaZulu Natal

Soobramoney v. Minister of Health, KwaZulu Natal 1998 (1) sa 765 (cc) was the first post 1994 Constitutional legal challenge to the state that brought into question the state's rights to provide emergency treatment to a patient. Mr Soobramoney (the applicant) was a 41-year old unemployed man who was gravely ill Mr Soobramoney suffered from ischemic heart disease and had chronic renal failure. He sought treatment at the renal unit in Addington State hospital's located in Durban Kwazulu Natal. Because the renal unit had limited facilities namely dialysis machines available, the hospital was unable to provide the appellant, Mr Soobramoney with the treatment he had requested. Since Mr Soobramoney was unemployed and was not a member of a medical scheme, he could not afford to access renal dialysis in the private sector. Mr Soobramoney was denied access to dialysis facilities because he did not satisfy the criteria laid down by the provincial health authorities which was to ensure that maximum benefit was derived from the limited number of dialysis machines available in the province. Mr Soobramoney was not admitted to the renal dialysis programme by the provincial health service because his condition was chronic and irreversible (Carstens and Pearmain, 2007 pp 46-50).

In his judgement Justice Chaskalson stated: "Section 27(3) itself is couched in negative terms – it is a right not to be refused emergency treatment. The purpose of the right seems to be to ensure that treatment be given in an emergency, and is not frustrated by reason of bureaucratic requirements or other formalities. A person who suffers a sudden catastrophe which calls for immediate medical attention,..... should not be refused ambulance or other emergency services which are available and should not be turned away from a hospital which is able to provide the necessary treatment.".

Chaskalson states that in a case of medical emergencies, a hospital must provide the "necessary treatment". In a pre-hospital environment the situation may differ because not all medical cases are classified as medical emergencies. Chaskalson's judgement implies that if an ambulance is available, then it should not refuse, justifiably, the treatment of the patient in an acute emergency. However, does this remain true of a patient who is not an acute medical emergency? If the patient is not an acute emergency, it is then possible that this patient may be able to transport themselves to a primary health care facility without further jeopardizing their health. Gray and Wardrope, (2007) identified four scenarios where a patient may be responsible for their own transport to a healthcare facility: "Group 1: no apparent injury, Group 2: hypoglycaemia in the known diabetic, Group 3: patients with epilepsy and Group 4: minor limb injury". Carstens and Pearmain (2007, p.47) argued that the Soobramoney v. Minister of Health case highlights the fact that there is justification in preferring the collective needs over those of the individual under certain circumstances and that the individualistic approach must have limits in a society if it is to function as a whole.

Kramer (2008) argues that "The Constitution s27(3), the Health Act 61 of 2003, the Health Professions Act of 1974, the Health Professions Amendment Act of 2007, the Nursing Act of 1978, the Department of Health's Ethical Rules of Conduct and the

Department of Health's Patients' Rights Charter are collectively mute on defining the basic practical scope of emergency medical treatment". None of these acts specifically define what emergency medical treatment means. Kramer (2008) argues that there is no complete definition for emergency medical treatment in South Africa and suggested that the definition should be defined by the medical community. Kramer (2008, p.55) states that the most appropriate definition of emergency medical treatment is: "the provision of, as a minimum, basic emergency medical care, by a professional health care providers, to any individual/s presenting to the emergency department of a registered health care establishment or provided to any individual/s on the scene of a medical emergency by health care providers of a medical condition which may actually or potentially threaten the life, limb or organ function of the person, such that the following assistance shall be attempted, in all patients, where medically required in a safe, caring, compassionate, competent and communicative manner".

To conclude, the Constitutional Court held that the definition of "Emergency Medical Treatment" refers to a "dramatic, sudden situation or event which is of a passing nature in terms of time and not a chronic terminal illness" (McQuoid-Mason & Dada, 2011, p.178). Although the term "Emergency Medical Treatment" is broad in its interpretation it includes all medical services and treatment that is linked to the definition of an emergency, which would then include the pre-hospital emergency medical services.

3.3 Definition of a non-emergency

What constitutes a non-emergency in the pre-hospital environment has received limited attention. A direct definition from the Oxford dictionary defines a non-emergency as "a situation that does not require immediate action, typically with regards to a person's health". This definition is brief and simplistic as it neither specifies the situation nor the amount of time that constitutes an immediate action.

The definition of a non-emergency by a medical practitioner is more specific, it is a non-acute life threatening condition that does not require immediate attention. The UK department of Health "Eligibility Criteria for Patient Transport Services (PTS)" document defines a non-emergency patient as "a non-emergency patient is one who, whilst requiring treatment, which may or may not be of a specialist nature, does not require an immediate or urgent response". Although there have been discussions concerning "non-emergency transportation" afforded by the various medical services to non-emergency patients, such as the elderly, low income earners, the physically disabled and those in geographic isolation, non-emergency is not defined (Safaei, 2011; Hughes-Cromwick et.al, 2005). The closest reference to "non-emergency" concerns what a non-urgent medical condition is in the emergency department (ED), (Uscher-Pines et.al, 2013; Cunningham, 2011; Bardelli and Kaplan, 2013). Uscher-Pines et al. (2013) defined non-urgent as a "condition for which a delay of several hours would not increase the likelihood of an adverse outcome".

Cunningham (2011) highlights that the patients' perspective of an emergency can vary from that derived from a physician's examination and diagnosis of a patient. Bardelli and Kaplan (2013) defined "non-urgent" patient encounters according to the World Health Organisation International Classification of Primary Care codes (ICPC-2) (Appendix C). Their research found "a high prevalence of "non-urgent" encounters with one out of three patients presented in the medical emergency unit suffering from a minor health problem. The most common "non-urgent" health problems were "cough/sneezing", "follow-up" initiated either by the patient or the provider, and "weakness/tiredness" (Bardelli and Kaplan, 2013, p.4). However, in a pre-hospital setting the ICPC-2 codes would be out of the ambulance practitioner's treatment scope of practice and they would not be able to diagnose the patient.

Becker et al. (2013, p.489) uses the term "non-emergent" rather than non-emergency to identify and define patients who are not in an acute life threatening situation such as the ill, infirm, handicapped and elderly. These patients would phone an ambulance because they do not have the means to get themselves to a hospital. Becker et al. (2013) further argue that an "emergency situation" cannot always be clearly defined and therefore remains purposefully subjective for the safety of the patient. If the definition of an emergency is defined as an sudden and unexpected onset of a health condition that requires immediate medical or surgical treatment (The Medical Schemes Act No. 131 of 1998), then surely a non-emergency would be the opposite i.e. the health condition at the time is not unexpected, is not acute and life threatening, is not a sudden onset that would require immediate medical or surgical treatment, it would not result in serious impairment to bodily functions or serious dysfunction of a bodily organ or part if not treated in the shortest time possible.

Therefore the definition of a non-emergency would be defined in accordance to clinically specific criteria that is associated to clinical conditions that are specifically minor in nature as describe by Gray and Wardrope (2007), such as no apparent injury, Mild asthma, epilepsy hypoglycaemia in a known diabetic and minor limb injury. This is the definition of a non-emergency that I use for the remainder of this report.

3.4 The patient's right to emergency medical treatment

In this section I discuss patient rights and what is an acceptable level of emergency treatment in the pre-hospital environment.

The intention is not to critique patient rights to health but rather to highlight the difficulty ambulance practitioners may experience with the rights of patients when they decline or delay transportation of such patient on the basis that they are non-emergencies.

South Africa has one of the most progressive constitutions in the world, where the allocation of healthcare is mandated as an individual's basic right. The Constitution s27 (2) states that "the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights" and s 27(3) states that "no one may be refused medical treatment". Does this mean that patients have a right to be transported by ambulance regardless of whether or not there is medical condition or the patient is a non-emergent?

Given there are limited resources, with not enough ambulances to respond to all the perceived medical emergencies, then it would be impossible to meet the demands as determined by section 27. However, by declining or delaying patient transportation because a patient is a non-emergent could possibly alleviate the burden on the EMS, and allow ambulances to respond to 'true' medical emergencies.

Both s27(2) and s27(3) place a heavy burden on the EMS by asking them to provide a service to the public where every call received by the EMS must be responded to as the ambulance is only able to determine whether a patient is a non-emergency once they have arrived at the patient. The ability to respond in a timely manner to each emergency call is determined by the available ambulance resources. Pieterse (2007, p.523) argues that s27(2) contains a resource limitation and "appears to provide a constitutional basis for rationing decisions by acknowledging that resource scarcity may sometimes justify the non-satisfaction of particular health-related needs".

The right not to be refused "emergency medical treatment" is specified in s27(3) of the Constitution. Carsten and Pearmain (2007) pose the question "does the available resource restriction contemplated in s27(2) of the Constitution necessarily apply to this provision", in context of "emergency medical treatment".

The right to health is a fundamental part of basic human rights and can be found in The Constitution of South Africa chapter 2 section 27. Additionally the rights of patients is enshrined in The National Health Act 61 of 2003 and the Patient Rights Charter. The Patient Rights Charter imposes responsibilities on patients, three of which are pertinent to this research. Firstly, to take care of his or her own health, secondly to respect the rights of other patients and health care workers and thirdly to use the health care system properly and not to abuse it. If patients are utilizing the EMS for their transportation requirements to a medical facility despite the patient not having a true medical emergency, this would be considered as abusing the system. According to Millen et al. (2011) there are wide-spread reports of unnecessary ambulance utilization in South Africa, Canada, the United Kingdom and the United States of America.

The United Kingdom, United States of America and Australia have conducted various research initiatives to resolve the issue of "non-emergent" calls and have initiated strategies to deal with the problem. Initiatives such as "classifying the calls in groups" (Gray and Wardrope, 2007), implementing a "secondary ambulance triage" (Vecellio, et al. 2012), "tele-nursing" (Philadelphia Fire Department), "Treat and Refer" (Snook,.et al. 2004), "ambulance education and new care pathways" (NHS Trust, United Kingdom), "EMS initiated refusal of transport, EMS-IROT" (Leverve, 2012 and Knapp et al, 2009) are all initiatives that have focused on maximising the ability of the emergency services to prioritise the most important emergencies and attend to non-emergencies thereafter.

Chapter 4 addresses these initiatives in a South African context and offers potential solutions which would allow an ambulance practitioner to decline or delay patient transport when a patient is considered a non-emergent.

When discussing prioritising passengers, one should recognise that rights are not absolute and in some cases, as when resources are scarce, EMS and ambulance practitioners are faced with a difficult situation. Having suboptimal resources hinders the ability the EMS to respond to every patient's need, which, in turn, limits the provision of health care and patient rights. McQuoid-Mason and Dada (2011, p.44) refer to limitations of rights as being determined by a) the nature of the right, b) the importance and purpose of the limitation and c) the nature and extent of the limitation. Thus, under certain conditions and specific limitations, the decision to delay or deny transport of a non-emergent patient may be justified as discussed in section 3.5.

3.5 Declining or delaying patient transportation

It is important to distinguish between declining patient transportation and delaying patient transportation. In both cases the patient is not considered a medical emergency and has not been refused medical treatment by the ambulance practitioner. The closest reference found to declining or delaying a patient transport was found in the Health Professions Council of South Africa on guidelines for the withholding and withdrawing of treatment booklet 12 s1(5), which states "Healthcare practitioners have a duty to give priority to patients on the basis of clinical need, while seeking to make the best use of resources and using up to date evidence about the clinical efficacy of treatments.

The first EMS case whereby a patient was not treated or transported in South Africa occurred in September 2004. It was reported that ambulance paramedics allegedly left a homeless vagrant to die on the streets of Johannesburg (BBC News, 2004, Ancer, 2004). This caused a huge public outcry and both ambulance practitioners were suspended pending a disciplinary hearing. A subsequent Johannesburg Emergency Management Services (EMS) tribunal found the two practitioners, Adriaan Craukamp and Johan Erasmus, guilty of misconduct and they were dismissed from their jobs. In the Labour court case between the Independent Municipal and Allied Trade Union obo J Erasmus and ABJ Craukamp v. The City of Johannesburg and another (J2605/08), both practitioners admitted that they had not acted in line with ethical rules and protocols. They also admitted to not having taken primary response equipment to the patient, resulting in the patient failing to reach hospital. It was argued that both Craukamp and Erasmus tendered their services as firefighters and were not obliged to tender their services as medical technicians.

At the time Craukamp and Erasmus were registered with the HPCSA as Basic Ambulance Assistants enabling them to do the bare minimum, i.e. assess a patient and establish the patient's vital signs, which was not done, constituting negligence and patient abandonment. However, after retaking the Basic Ambulance Course (BAA qualified), both Craukamp and Erasmus were reinstated with suspensive conditions by the HPCSA. As discussed in chapter 1, is that the BAA course is only a basic level course and the candidate will be registered with the HPCSA under supervised practice, meaning that a BAA cannot make an important decision such as whether to decline or delay patient transportation.

In order to make such a decision regarding a non-emergency patient would require a higher trained practitioner in attendance as suggested by Gray and Wardrope (2007). Schmidt et al. (2000) and Peyravi et al. (2015) stated that declining or delaying an on-scene discharge of a non-emergent patient is feasible, but only after additional training of ambulance practitioners to eliminate under triage and with compliance to strict guidelines and protocols

Becker et Al. (2013, p 489) stipulate under what conditions it could be feasible to decline or delay either a patient's treatment or their transport to a medical facility. These conditions included: "1) for frequent users of EMS, case management interventions can be useful in educating patients about appropriate times to call their primary care provider versus EMS. This could also include expanding the availability of primary care services or telephone triage programs for situations that are determined not to require emergency department care, 2) for patients who lack a source of transportation, but who otherwise do not need EMS-based transport, alternative transportation options should be explored, 3) when patients request transport to different hospitals than where they routinely receive care, EMS personnel should exercise their judgment in deciding where to transport, as long as it can be determined that the patient has no legitimate reason to be transported to an alternate facility".

The ethical dilemma for the ambulance practitioner in South Africa is complicated and the decision to decline or delay transport could have legal consequences. As discussed previously, the current legislation in South Africa does not specifically deal with declining or delaying patient transportation when a patient is a non-emergent. The Constitution s27 and National Health Act 61 of 2003 only say that a patient may not be denied emergency medical treatment.

Under conditions when a patient is not in an acute life threatening situation, the medical condition is not sudden and unexpected and that the condition of the patient does not require immediate medical attention, then is it a medical emergency that justifies an ambulance to transport the patient? In such a case, a clear definition of a non-emergency is important in order to justify declining or delaying a non-emergent patient transportation. Above I accepted one such definition, which entails that the right to emergency medical treatment does not entail that all ambulance requests should be transported.

Other conditions that are relevant to EMS in South Africa, such as resource limitations, could also determine whether or not to transport a patient. In a limited resource environment where it is necessary to compromise, ambulance delays and lack of attendance by health practitioners is unavoidable. This is not to say that they will not be attended to or treated by the ambulance practitioner, but it suggests that not all the patients requiring an ambulance can be reached in the prescribed 15 minutes for priority 1 medical emergencies, nor will all other emergency calls be attended to within 60 minutes. In such cases, alternative options should be put in place to attend to the needs of these patients as is practicable.

3.6 Conclusion

To conclude, the definition of "emergency medical treatment" is broad in its interpretation and does not specifically state that an ambulance service is used only for emergencies. It is however accepted that EMS and the ambulance service forms part of the emergency medical treatment chain and is therefore considered to offer emergency medical treatment.

The ambulance service and ambulance practitioner cannot decline treatment of a patient whether the patient is a medical emergency or not.

However, there may be scope for an ambulance practitioner to treat a non-emergent patient on scene and once it is determined that the patient is stable and that declining or delaying patient transportation will not jeopardize their safety and health, that they can depart to the next emergency call. According to Slabbert (2013, p.68) taking charge of a patient and the duty to treat a patient can be withdrawn when: a) the patient has consented to the withdrawal, b) the patient can be transferred or referred to a competent colleague, c) the doctor issues further instructions for treatment, d) the patient has recovered and requires no further treatment, and e) the patient makes it impossible for the doctor to complete treatment for instance by refusing further treatment or discharging themselves. If, in a pre-hospital environment, a patient signs a refusal of hospital treatment (RHT), then the ambulance can depart without incurring liability.

What would be the provisions for allowing an EMS service to implement a protocol that allows an ambulance to decline or delay patient transport when the patient is not a medical emergency? There must be strict guidelines that the ambulance practitioner would have to follow. With the ever increasing risk of medical litigation, the EMS crew would also need to be trained in legal aspects pertaining to patient rights, medical malpractice and professional negligence. These and other suggestions and recommendation are discussed in the following chapter.

CHAPTER 4: RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

4.1 Introduction

The recommendations discussed in this chapter are meant to be considered as a guide to the implementation of a system that enables ambulance practitioners to be able to make a decision to decline or delay patient transportation when the patient is a non-emergent. Sufficient consultation and clinical governance relating to the various medical and legislative authorities needs to be exercised before any systems can be initiated, and further research is recommended to test the concepts outlined in this chapter.

Not all the recommendations in the literature may be relevant to South Africa which has a different socio-economic structure, constitution and legal system from other countries such as the UK where, for instance, care pathways are developed to deal with the increasing patient volumes utilizing the EMS and ambulance services (Rooney, 2014). South Africa needs to find a system which allows health practitioners to delay transportation of a non-emergency patient without either compromising that patient's safety or contravening their rights to access healthcare.

The key to such a system would be to implement stringent guidelines that would assist the ambulance practitioner in assessing, with the patient's cooperation, whether or not transport is required, and what alternative arrangements the patient should make to access the nearest primary clinic for assessment and appropriate treatment.

4.2 Recommendations

The ambulance is heavily reliant on the EMS call centre for it to operate efficiently. Whilst the ethical obligations of the EMS call centre do not form part of this research it is integral to the functioning of a decline or delay of a non-emergent patient transport protocol. Without the acceptance and buy-in of all the role players the system will not work. The objective for implementing a "decline or delay non-emergency patient transport framework" would be to ensure that there are ambulances available to attend to priority 1 (P1) medical emergencies.

4.2.1 An ethical guide for ambulance practitioners when declining or delaying transportation of a non-emergent patient

Certainly, ethical problems will arise when having to make a decision to decline or delay patient transport. This decision may be rife with controversy, and could bring about legal and ethical claims of medical negligence and patient abandonment. There is little current ethics literature that specifically guides the ambulance practitioner in South Africa, and what there is consists of introductory teachings offered by short course programs and by certain universities that offer the Bachelor of Technology degree in Emergency Care.

Pre-hospital emergency practitioners fall under the generic ethical guidelines as prescribed by the Health Professions Council of South Africa Booklet 2, “Core ethical values and standards for good practice”. The HPCSA booklet 2 serves as a starting point and does not deal with specific ethical problems that ambulance practitioners will face when treating patients in a pre-hospital environment. Most of the existing ethical guidelines teach the theories and concepts of medical ethics, such as informed consent, abandonment, negligence, autonomy, human rights, patient confidentiality.

Different medical specialisations pose different ethical and moral problems. For example, a cardiac thoracic surgeon may have to choose not to resuscitate an elderly patient in surgery in front of the surgery staff, while an ambulance practitioner may face a similar situation at an elderly patient's home in front of a family member. In the former case, the medical staff who are supporting the cardiac surgeon may understand the reasons for his/her action as they are medically trained and do not have a personal relationship with the patient. Conversely, in the latter case, non-medical persons such as family members are emotionally connected to the patient and may feel that the ambulance practitioner's decision not to resuscitate the patient was inappropriate and that not enough was done to save their loved one. It could be viewed by the family member as patient abandonment and medical negligence on behalf of the ambulance practitioner.

Thus, the ambulance practitioner may be exposed to legal threats based on them directly interacting with, say, family members and implementation of a system that delays or denies a patient transport would thus require strong medical oversight and thorough training for ambulance practitioners. This would include ethics and legal training that covers negligence, medical malpractice, patient abandonment and legal liability

Before an ambulance practitioner can delay or decline patient transportation the following questions would have to be considered.

- Has the ambulance practitioner been trained and certified to accurately and safely assess a non-emergency patient and does the ambulance practitioner have the authorization to decline or delay patient transportation.
- What is the nature of the medical call: emergency or non-emergency?

- Is an EMS-IROT (Emergency Medical Service Initiated Refusal of Transportation) safe for the patient and will it result in no further harm to the patient if initiated?
- Has a thorough medical assessment been completed to determine that the patient is a non-emergency.
- Has the correct documentation be been completed to justify the decision not to transport.
- What would the legal implications be should an ambulance practitioner delay or decline patient transportation of a patient who is classified as a non-emergency?
- Has proper consultation been done with the patient and consent obtained from the patient not to transport them?
- Has a patient management plan been activated, such as referring the patient to alternative medical facilities for treatment such as a primary care facility?
- Has a proper follow up been done to ascertain whether or not the patient sought out the treatment recommendations provided by the EMS?

Because each medical specialisation comes with its own ethical challenges, it is not easy to design an algorithm covering all the ethical problems that may be encountered by an ambulance practitioner. In order to further investigate the above questions, research should be done to develop an algorithm that can "treat, assess and refer non-emergent patients" that would be aimed at assessing a patient on scene to determine that they are a non-emergency and do not require transportation.

4.2.2 A framework to decline or delay patient transport for non-emergency patients

There are various components that make up the EMS value chain (figure 1). It is important to note that the ambulance and the ambulance practitioner does not operate independently in the EMS value chain.

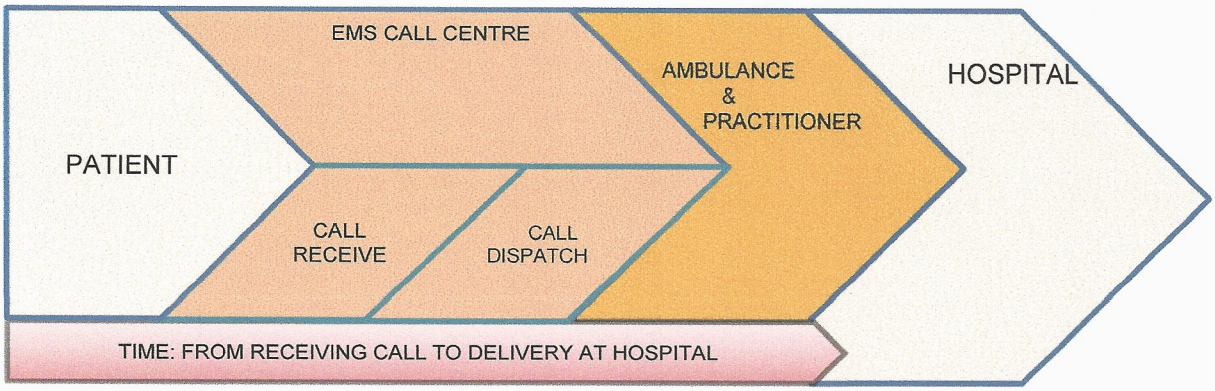


Figure 1: Patient -EMS value chain, D Saunders, 2015

The EMS have two components in the Patient-EMS value chain, the call centre and the ambulance. The call centre has call receivers and call dispatchers that manage the calls and dispatch ambulances to attend to the emergency. The call centre is the first point of contact for a patient emergency and they are the starting point for the implementation of declining or delaying a non-emergent patient protocol.

The first phase would be to overhaul the call centre and implement the following processes:

- Care pathways for call centre practitioners
- Tele-nursing and triaging patients in the call centre.
- Patient telephone redirection to a primary care clinic.
- Ambulette non-emergency alternative patient transport.

Each of the above processes will be briefly explained as to why they contribute to assisting the ambulance practitioner with the declining or delaying of a patient's transportation when such patient is not a medical emergency.

Care pathways for call centre practitioners

Care pathways have their origin in quality improvement processes in the Japanese manufacturing sector which use predetermined algorithms applied to the manufacturing process in order to improve efficiency and minimize wastage. It has recently been applied to the health care industry in the United Kingdom and Europe (Rooney, 2014). Care pathways is a structured computer based system that guides the telephone operator through various questions and stages in order to ascertain an appropriate medical intervention for the patient. It is acknowledged that no computer system can cater for all eventualities and professional judgements, and clinical decisions will need to be made by the telephone operator that will deviate from the care pathway. However the care pathway system allows for a more in-depth clinical assessment for non-emergent patients and then refers the patient to the right medical professional and/or most appropriate facility.

Rooney (2014, pg.53) states that "healthcare pathways involve a number of nested processes delivered according to certain decision points within the pathway and undertaken by different teams or staff members in different organisations. The pathway "holds together or organises what otherwise would be a collection of uncoordinated and possibly unnecessary procedures leading to poor-quality outcomes and excessive cost or waste".

Kinsman, et al. (2010) lists five key characteristics of care pathways, which are:

1. The intervention is a structured multidisciplinary plan of care.
2. The intervention is used to translate guidelines or evidence into local structures.
3. The intervention detailed the steps in a course of treatment or care in a plan, pathway, algorithm, guideline, protocol or other 'inventory of actions'.
4. The intervention has timeframes or criteria based progression.
5. The intervention aims to standardise care for a specific clinical problem, procedure or episode of health care in a specific population such as a diabetic patient.

Source: Kinsman, L. et al., 2010.

Dale et.al. (2003) stated that computer aided and telephonic triage systems did contribute towards less ambulance call out rates. If the care pathways system was introduced to South Africa then it would first have to adhere to the relevant ethical and legal criteria. The care pathways should be focused on identifying the non-emergent priority 3 patients who may not require transportation by an ambulance, thereby allowing the ambulance to respond to priority 1 medical emergencies first.

Tele-nursing and triaging patients in the call centre.

Improving medical call receiving and dispatcher efficiency is vitally important as this is the first point of contact for a patient. The skills and operational efficiency of the call centre staff determines the quality of the response service and the outcomes of patient care and survival. Tele-nursing refers to providing cost effective nursing care and advice using technology mainly through a telephone and computer system. Tele-nursing is a relatively new concept and has only been implemented in a few countries such as Sweden, The USA, Australia and the UK.

However, it is worth noting that the NHS 111 emergency and urgent care services number in the UK is currently under review with a view to it becoming a "functionally integrated 24/7 urgent care access, treatment and clinical advise service" (Hakin, 2015).

Tele-nursing has a dual purpose, firstly it directs the non-emergent patient to the right level of advice and promotes self-care support (Hakimnia et.al, 2014) and, secondly it makes health care more efficient, more accessible and safer for patients and (Butkowitz, 2009 and Hakimnia et.al, 2014). Additionally, tele-nursing should offer ethical and clinical oversight for ambulance practitioners working in the field. For instance, if an ambulance practitioner has identified a non-emergent patient who does not require transportation, but the ambulance practitioner has some doubts regarding the ethical or legal implications of declining or delaying patient transportation, they can contact the tele-nurse in order to obtain advise.

Patient telephone redirection to a primary health clinic.

There are a number of research reports on the subject of hospital emergency department (ED) overcrowding. Various factors contribute towards this problem, and in South Africa a major cause of hospital overcrowding is ambulances transporting every patient to the nearest public hospital ED despite 25% of those patients not needing hospital care (Mojaki et.al 2011). To limit such overcrowding of hospital ED's it is suggested that non-emergent patients who are in need of basic healthcare could be redirected to a Primary Health Clinic (PHC). PHC's were established as a first level of care in 1994 as part of the South African Government's commitment to improving the health status of its citizens and improving the access to essential healthcare services.

Examples of essential healthcare services are free health for pregnant mothers and children under the age of 6, nutritional advice, immunization programs, management of communicable diseases, treatment of chronic diseases (hypertension & diabetes) and treatment of minor ailments (Nteta, 2010). The strategy of redirecting non-emergent patients to a PHC will require the PHC to be upgraded to be able to support and treat patients at a more advanced level which will include after-hours access in cases of emergency. The advantage of PHC's is that they are conveniently located and are easily accessible for the community. Patients who are identified as non-emergent and have a medical condition that can be treated by a PHC could be redirected by the ambulance to a PHC.

Ambulette non-emergency alternative patient transport

In the UK and the USA, various EMS services provide alternative patient transport services to non-emergency patients. The patient elects to use alternative transport such as private vehicle or a patient transport vehicle called an "ambulette" provided by the state to transport them to a hospital for treatment. In South Africa, a similar program is being used in the Western Cape named Healthnet. Healthnet provides non-emergency transport to patients between health care facilities. The EMS currently operates 540 vehicles in total of which 90 are specific to the HealthNet patient transport program[10].

In all cases these patients are not ill or injured and are aware of their health status. If alternative patient transport (APT) is provided for non-emergent patients then the ambulance practitioner can refer the patient to the APT and attend to the next call.

[10] Source: Western Cape Government https://www.westerncape.gov.za/news/healthnet-fleet-gains-ten-tailor-made-wheelchair-patient-transporters .

Once the above EMS call centre systems can be effectively implemented and managed without legal recourse to either the call centre or the ambulance practitioner, the system would revert to the second phase of the "decline or delay patient transport framework" which involves the ambulance that is dispatched to the patient. The recommendations never deny a patient treatment in some form or another as that would contravene the Constitution article s27.

When the patient is classified as a non-emergent by the ambulance practitioner and they wish to initiate a non-transport protocol then the system would require the following support processes:

- That only EMS personnel with a HPCSA registration under Independent practice may make a classification of non-emergent patient.
- Current treatment protocols for ambulance practitioners to include standards of care for non-emergency patients.
- Telephonic oversight and clinical support for EMS personnel.
- EMS initiated refusal of transport (EMS-IROT)

Current treatment protocols for ambulance practitioners, to include standards of care for non-emergency patients

Current ambulance practitioner protocols published by the HPCSA include treatment procedures and medications. The protocols should include the following policies:

- How to manage patients classified as non-emergency,
- The treatment and release of diabetic patients with reversible hypoglycaemia, epilepsy, minor limb injury and no apparent injury.
- Assessment and treatment of the elderly patient identified as non-emergency.
- A non-emergency checklist that details inclusion and exclusion criteria for transportation.

Telephonic oversight and clinical support for EMS personnel

In order for the ambulance to safely decline transport of a non-emergent patient, ambulance crews working in the field need to have access to telephonic medical supervision that can guide them through complex medical decisions such as determining that a patient is not a medical emergency. Lack of telephonic oversight by a nurse, paramedic or doctor will only make the ambulance practitioner's job more difficult.

As discussed in section 4.2.2.1, telephonic oversight and support would be provided by the tele-nurse and would advise the ambulance practitioner should the practitioner be faced with uncertain patient transport decisions.

EMS initiated refusal of transport (EMS-IROT)

Emergency medical services initiated refusal of transport (EMS-IROT), (Leverve, 2012) and (Knapp et al, 2009) is a term used when the ambulance crew in consultation with the telephonic medical oversight determine that the patient is a non-emergent and can be treated on site by the ambulance crew. Studies on EMS systems in the USA indicate that they all had some form of EMS-IROT (14%) with the support of medical oversight such as a call centre doctor or advanced life support practitioner that is available telephonically to advise the ambulance practitioner. The system of EMS-IROT can only be initiated for certain patient medical conditions. Four examples of such conditions identified by Gray and Wardrope, (2007) are: "Group 1: no apparent injury, Group 2: hypoglycaemia in the known diabetic, Group 3: patients with epilepsy and Group 4: minor limb injury". In these cases the patient could be adequately treated on scene and not transported by the ambulance. Other medical conditions that are more seriously acute or life threatening have to be transported as highlighted by Kramer (2008, p.55) which are: "attempted provision and protection of a patent airway, attempted provision of effective ventilation medically manually or mechanically,