ABSTRACTS FROM THE EMS GATHERING 2018, SEPT 11TH -13TH 2018 & IRISH COLLEGE OF PARAMEDICS SCIENTIFIC SYMPOSIUM SEPT 15TH, CORK, IRELAND,

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Introduction

The editorial board of the Irish Journal of Paramedicine (IJP) is honoured to present these abstracts accepted for presentation at the EMS Gathering, 11th to 13th of September 2018 in Cork, Ireland, and the Irish College of Paramedics Scientific Symposium, 15th September 2018 in Cork, Ireland. As part of our commitment to furthering the profession of paramedicine, and encouraging future development of professional standing, we publish this special supplement containing the selected abstracts.

These abstracts represent academic dedication, intellectual discovery, enthusiasm and for some, a foray into a new territory of research and academia. We are grateful for each and every one of these authors’ commitment to the advancement of our profession. We are privileged to publish these brief summaries of some of the novel and exciting research our colleagues are undertaking. Abstracts were received from several countries around the world, including Ireland, England, Scotland, and Canada.

This year the EMS Gathering and the ICoP Scientific Symposium combined received 30 abstracts for consideration. 28 were deemed appropriate for review consideration. 28 of the submissions (100%) were accepted: 14 for oral presentation, and 14 for poster presentation. Four authors subsequently withdrew their abstracts from presentation after acceptance. Each abstract was independently reviewed by reviewers who were blinded to the identities of the authors. Final determinations for scientific presentation were made by the Abstract Review Committees. The decisions of the committees were based on the final review scores, with consideration to the time and space available at the meeting for oral and poster presentations.

We present these abstracts as they were received, with minimal copyediting and proofreading. Any questions related to the content of the abstracts should be directed to the authors. Please note that the abstract numbers presented here do not match the presentation numbers at the meetings. Some abstracts have not been published in this supplement at the request of the authors to avoid potential publication conflicts.

On behalf of the editorial board of the Irish Journal of Paramedicine, the Irish College of Paramedics and the organising committee of the EMS Gathering 2018, we sincerely thank our colleagues for these valuable contributions, and their continued efforts to expand the knowledge base of paramedicine and prehospital care, ensuring we constantly strive to deliver the best care to our patients, and the best education to our prehospital care professionals.
Review process
In choosing abstracts for the meeting, our goals are logic, fairness, and transparency. We do not believe one form of research is inherently better than another. In the interests of transparency and fairness, we are pleased to share our abstract scoring criteria (Figure 1). Remember, scoring is a judgment call. As an author, one is welcome to use the criteria to score one’s own abstract, but this won’t change how the reviewers score the abstract on review.

All abstracts were reviewed in a blinded manner. Reviewers indicated if they had any potential conflict of interest during the review process (knowledge of the submitting authors or the work of specific abstracts etc.). No conflicts were declared by reviewers. Abstracts were scored on the content of the abstract, educational value, and quality of the written abstract.

- **Content of the abstract**—scientific accuracy and relevance of the abstract, as described in the outlined headings: Introduction/Background, Objectives, Methods, Results and Conclusion/Discussion.
- **Education value**—what interest and appeal would this abstract hold to the audience. Does it represent a contribution to practice, theory, research or knowledge, and how novel or innovative is this contribution? Is the topic relevant to conference?
- **Quality of the written abstract**—is the abstract self-contained, coherent and readable?

Scores from each reviewer were tallied, and the mean score was calculated for each abstract. Abstracts were then ranked according to mean score. Abstracts were selected for oral presentation based on highest mean scores. Other abstracts were ranked in order for poster presentation.

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*Figure 1. abstract scoring criteria*

**Abstract notes:** EMSG = presented at EMS Gathering; ISS = presented at ICoP Scientific Symposium.

**Abstract Reviewers**
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Introduction: The need for continuing professional development is well recognized and is supported by professional bodies in all healthcare disciplines. It can be difficult to access CPD for those who work shift. Aims: To create a multidisciplinary learning environment within a National Ambulance Service (NAS) station. To describe the participants responses to the education sessions by the participants of the sessions: on whether they thought they were helpful, they learned anything and if they thought it contributed towards team building. Methods: The National Transport Medicine Programme (NTMP) has recently become a service within the National Ambulance Service (NAS) station, under the new name of the NAS Critical Care & Retrieval Services (NASCCRS). This service is responsible for transporting critically ill neonates, children & adults with a multidisciplinary team. The Breakfast education sessions were planned a number of months in advance with the purpose of creating a multidisciplinary learning environment. The sessions lasted for no more than one hour from 7.30am-8.30am once a month. The sessions often focused on topics that the teams encountered during their clinical work. The sessions were also started to further enhance and build the multidisciplinary team consisting of NAS staff and the NASCCRS medical teams. The participants were sent a questionnaire to assess their attitudes towards the sessions. Results: Most participants believed that the sessions were very enjoyable and that they learnt from them. They also felt that the sessions created a sense of teamwork and they got to know the greater team more. They felt the way it was run was relaxed and was easy to attend as it was mostly during work hours. Almost all the results were positive towards the sessions. Conclusion: The breakfast education sessions created by the team at the National Transport Medicine Programme Critical Care & Retrieval Services are a novel idea to learn, build teams and more importantly eat breakfast! We plan to extend the sessions with a view to streaming them in the future.

References
3. PHECC. CPC guide for EMTs. 2016.
Background: The reorganisation of hospital services in Ireland, the development of hospital groups, centralisation of specialties and reconfiguring of smaller hospitals necessitates inter hospital transfer of patients requiring specialist care to an appropriate hospital that meets their clinical needs. In Ireland, in excess of 1000 adult critical care inter hospital transfers occur per annum.(1) The ‘hub-and-spoke’ model is aligned with the hospital group structure and connectivity between hospitals is provided through agreed transport and retrieval services. These transfers are generally undertaken by local teams (usually an anaesthetic NCHD and a nurse) using an emergency ambulance and crew. Multidisciplinary team training is provided, by Critical Care Retrieval Services, using local resources in a framework enhancing safety and preparedness. Aims: A critical care transfer checklist with a systematic approach provides a framework to address the elements of critical care, transport physiology changes and reduce potential adverse events when transferring critically ill patients.(2) The use of transport specific adjuncts and packaging the patient systematically not only addresses patient safety is a fundamental principle in healthcare and is the responsibility of healthcare practitioners to apply quality improvement methods to effect process and system improvements. The use of a systematic approach to patient management when transporting critically ill patients establishes a higher level of performance reduces cognitive dissonance and provides a framework for clinical teams and reduces the potential for human error.(3)

References

A04.EMSG. Thoughts, Ethics and Actions in Emergency Medical Services Photography.
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“Photography can only represent the present. Once photographed, the subject becomes part of the past.” - Berenice Abbott (July 17, 1898 – December 9, 1991).
A picture tells a thousand words..a bride, a storm, a child killed by a bomb; a photo of is a moment in time, a split second & then becomes history. So what of the role of photography in Emergency Medical Services (EMS)? It is about education, history, documenting, & recording & promotion. Important daily personal memories are imprinted when say, we have coffee with our colleagues and we talk about a call we did, maybe a bad call, someone breaks the tension; “Time for a photo?” A time will come when we look back & remember not only a bad call, but also who had our back that day. Old photographs of EMS show us how far we have come in terms of equipment, personnel, and training. Without photos we would have no reference point. It’s a sobering thought that the EMS photos we take today in good faith may in fact be the warnings of tomorrow. Of course there is a graphic side of EMS photography. Photographers are rightly held to account to portray individuals and scenes with the utmost respect to the patient and their families,1. Passersby can be opportunistic and sometimes thoughtless at crisis scenes. Is it OK to photograph a person in their dying minutes? Graphic photos taken by EMS personnel are used as visual aids when in the Emergency Department (ED) in our hospitals. But where is the line drawn…or is there a difference?

The National Press Photographers Association (NPPA) Code of Ethics Summary guide expresses this nicely as, 3; “Photographic and video images can reveal great truths, expose wrongdoing and neglect, inspire hope and understanding and connect people around the globe through the language of visual understanding. Photographs can also cause great harm if they are callously intrusive or are manipulated”.

“No, it’s personal” When we take photos of our colleagues and other emergency services, we have a responsibility to protect our other front line colleagues. Underneath the uniform is a person, who is taking on and then managing risks on behalf of others. We are proud of the people who protect us, who run to us in our hour of need, who face fire and fight to save the lives of loved ones. A ‘smiling selfie’ drinking coffee can cover up the previous callouts of an attack with a bloody syringe, the sudden quiet of people inside a burning building, or the distressed relatives at the loss of a child. Take out your cameras, with a photo a moment in history is saved. Along with the images, emotions are stored. But always with a caution and a nod to the ethical code of conduct above; The photographer’s intent is where the red, blue, green, and white line is drawn…
A05.EMSG. Why MICAS?
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Introduction: The Mobile Intensive Care Ambulance Service (MICAS) was initiated in 1996 to assess, stabilise and transfer critically ill patients from a referring hospital to a receiving hospital to meet their clinical needs. Critically ill patients are transferred throughout Ireland to an increased level of care, repatriation for continuity of care following specialist treatment, specialist critical care services or in some instances, are considered too unstable to be transported by local staff.(1,2) In 2015, it was estimated that approximately 1,000 ICU patients are transported per annum.(3) These numbers are likely to increase as a result of the reorganisation of health services, the development of hospital groups, the establishment of the hub and spoke critical care services and introduction of trauma centres. This increases the requirement of inter hospital transfers throughout the country. Aims: The aim of this audit was to establish the rationale for a critical care retrieval service and to evaluate the adverse events for inter hospital transport of critically ill patients in Ireland over a 3 year period. Methods: A retrospective chart review of all patients transported by MICAS between January 2015 and December 2017 was undertaken. Clinical records were reviewed for acuity and for adverse events. Results: 339 patients were transported in this timeframe with 7% experiencing an adverse event overall. Conclusion: The MICAS data shows an increasing number of critically ill patients transferred by MICAS within the timeframe. The rationale for MICAS includes the provision by a specialist team with transport specific equipment with reduced adverse events.

References

A06.EMSG. Advanced Paramedic Delivered Finger Thoracostomy
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Introduction & Aims: Tension pneumothorax is a potentially fatal but reversible injury encountered in major trauma and traumatic cardiac arrest. Needle decompression has been the standard treatment approach pre hospital in Ireland and internationally. However, concerns exist regarding the effectiveness of this approach due to anatomy and body habitus. We aim to describe the training, introduction and experience of finger thoracostomy by advanced paramedics within a pre hospital service in Ireland. Methods: Finger thoracostomy has been advocated as an alternative pre hospital treatment which is both diagnostic and therapeutic. Paramedic delivered thoracostomy is commonplace in pre hospital critical care services internationally. The MCI Medical Team (as part of Motorsport Rescue Services) is a PHECC-registered multidisciplinary team which provides medical cover at motorcycle road racing events in Ireland. The MCI Medical Team has significant experience of major trauma and routinely performs pre hospital anaesthesia for trauma patients. We introduced a training module on finger thoracostomy, comprising: theory, practical instruction and assessment for advanced paramedic members of the team. Results & Conclusions: Advanced paramedic members of the team we trained to deliver finger thoracostomy in predefined circumstances when operating as part of the MCI medical team. To date, advanced paramedic delivered finger thoracostomy has been utilised on three occasions. Introduction of advanced paramedic delivered thoracostomy is a feasible and effective technique for the treatment of tension pneumothorax within a closely governed system.

Bibliography
1. London HEMS SOPs
2. PHECC Clinical Practice Guidelines, 2017
4. MCI Medical Team SOPs, 2018
A07.EMSG. Are the current pain assessment tools used by paramedics in Ireland, suitable for use with cognitively impaired (dementia) patients?
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https://doi.org/10.32378/ijp.v3i2.143

Background: Dementia is a disease affecting 55,000 Irish people.(1) It is characterised by progressive cognitive impairment, ranging from mild impairment, which may affect memory, to severe impairment where the ability to communicate may be absent. These people are at risk of having their pain under-assessed and undermanaged.(2) A survey exploring Irish Paramedics and Advanced Paramedics views on the current pain assessment tools available to them, and whether these tools are suitable for use with dementia patients is proposed. Existing observational pain assessment tools used with dementia patients are examined and their suitability for pre-hospital use discussed.

Introduction: Adults with cognitive impairments, such as dementia, are at a much higher risk of not receiving adequate analgesia for their pain.(3) It is estimated between 40% and 80% of dementia patients regularly experience pain.(4) Current pain assessment tools used pre-hospital in Ireland are: Numerical Rating Scale for patients >8yrs, Wong Baker Scale for pediatric patients and the FLACC Scale for infants. There is no specific pain assessment tool for use with patients who are not capable of self-reporting their level of pain. Objective: This research aimed to identify observational pain assessment tools used in this cohort. The most consistently recommended tools were identified. The suitability of these tools for use in the pre-hospital setting assessed.

Findings: Literature review identified 29 observational pain assessment tools. There is a lack of literature relating to the pre-hospital setting. The American Geriatric Society (AGS) identified six pain behaviors in dementia patients, changes in facial expression, activity patterns, interpersonal relationships and mental status, negative vocalisation, change in body language. These six criteria should be the foundation of any pain assessment tool. (5) The three most consistently recommended tools identified were as follows: Abbey Pain Scale: 6 items assessed, meets AGS criteria, quick and easy to implement, moderate to good reliability and validity (6); Doloplus 2: 15 items assessed, meets 5 of 6 AGS criteria, requires observation over time, prior knowledge of patient required, moderate to good reliability and validity (6); PAINAD: 5 items assessed, meets 3 of 6 AGS criteria, less then 5 minutes to implement, may be influenced by psychological distress, good reliability and validity. Conclusion: The ability to self report pain is deemed “gold standard”. Patients with mild to moderate disease, and indeed, some with severe disease, may retain the ability to self report. An observational tool is required when dementia has progressed to the point where the patient becomes unable to self report or becomes non-verbal. It is in these patients where undetected, misinterpreted or inaccurate assessment of pain becomes frequent. The aim of any tool is to gain a good assessment of pain, however, the pain scale used should be suitable to the clinical setting. The feasibility of an assessment tool is an important factor along with reliability and validity. No one assessment tool could be recommended over another. Abbey and PAINAD have potential for use pre-hospital, however, further research, clinical evaluation and trial in an ambulance service is required.

References
**A08.EMSG. Pit Crew Approach to Pre Hospital Trauma Resuscitation**
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**Introduction:** Pre hospital trauma care is often delivered by dual crewed ambulances supported by additional resources as necessary and available. Coordinating resuscitation of a critically injured patient may require multiple simultaneous actions. Equally, a large number of practitioners can hinder patient care if not coordinated. **Aims:** To describe a multi disciplinary, scalable approach to pre hospital trauma care suitable for small and large multi disciplinary teams. Methods The MCI medical team (as part of Motorsport Rescue Services) is a PHECC-registered multidisciplinary team, which provides medical cover at Motorcycle road racing events in Ireland. The MCI medical team has significant experience of major trauma and routinely performs prehospital anaesthesia for trauma patients. We have evolved a pit crew approach to trauma care with pre defined roles and interventions assigned to a five person team, three clinical members, a scribe and a team lead. The approach is both scalable and collapsible, meaning that if multiple patients are present, roles can be merged; if additional clinical input is required, roles can also be supplemented. Each team member carries equipment and medications specific to their role, allowing efficiencies at the patients side. **Results:** The pit crew approach to pre hospital trauma care has evolved over a decade and is routinely implemented at motorcycle road races in Ireland. **Conclusions:** The pit crew trauma approach, although applicable to a pre defined five person team in unique circumstances, may also be applicable to ad hoc clinical teams that typically form in the pre hospital arena.

**Bibliography**
1. PHECC CPGs 2017
2. ATLS Manual 2016
3. ATACC Manual 2014
4. MCI Medical Team SOPS 2018

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**A09.ISS. Empathy Levels in Canadian Paramedic Students: A Longitudinal Study**
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https://doi.org/10.32378/ijp.v3i2.117

**Background:** Empathy in healthcare delivery is an essential component to providing high-quality patient care. Empathy in paramedics and paramedic students has been subject to limited study to date. This study aimed to determine the empathy levels demonstrated by first year paramedic students over the course of their first year of study. **Methods:** This study employed a longitudinal design of a convenience sample of first year paramedic students in a community college program in Ontario, Canada. The Medical Condition Regard Scale (MCRS) was used to measure empathy levels across four medical conditions: intellectual disability, suicide attempt, substance abuse and mental health emergency. Surveys were conducted three times approximately 2-3 months apart; before first semester field placements (Nov/17), after first semester field placements (Jan/18) and near the end of second semester field placements (Mar/18). **Results:** A total of 20 students completed all three surveys. Females, respondents aged 22-24, and participants with previous post-secondary education demonstrated higher mean empathy scores than their counterparts. Substance abuse was associated with the lowest mean empathy score for every demographic. Mean scores for intellectual disability, attempted suicide and mental health emergency decreased from the first survey to the last. Mean scores for substance abuse increased from 43.3 (SD±8.2) to 46.45 (SD±7.04). **Conclusion:** Results from this study suggest that in general, empathy levels among paramedic students decline over the course of their education. Male paramedic students are less empathetic than their female counterparts, and those with previous post-secondary education displayed higher mean empathy scores. The findings in this research support previous findings, and suggest that paramedic education programs may benefit from the inclusion of additional empathy training and education.
A10.ISS. Barriers perceived by volunteer EMTs in Participating in Continuous Professional Development in Ireland.
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https://doi.org/10.32378/ijp.v3i2.115

Introduction: Following the re-launch in 2016 of mandatory Continuous Professional Competency (CPC) for Emergency Medical Technicians (EMT) by the Pre-Hospital Emergency Care Council (PHECC) Ireland (1), it is the aim of this research to explore volunteer EMTs perceived attitudes, barriers and confidence in relation to participating in CPC.  
Methods: A questionnaire for EMTs was distributed to the four main pre-hospital volunteer organisations and via the PHECC CPC coordinator social media account (Facebook) to gather information on attitudes towards CPC, perceived barriers to participating in CPC, and finally comfort level in completing the didactic aspects of CPC.  
Results: In total 341 eligible responses accounting for 15% of EMT registrants were analysed. 65% believed CPC was necessary for professional development, with 61% reporting it an important part of their practice. 57% believed CPC should be linked with maintaining PHECC registration, showing a decline of 38% against recent Irish research. The unique profile of respondents as volunteers highlights barriers commonly cited in the literature as having a more significant impact on CPC participation, most notably over 80% cited time and access to relevant material/courses as impacting on participation. A 40/60 split between 2nd and 3rd level educational qualifications among respondents highlighted a marked difference in perceived confidence for completing didactic CPC elements among graduates with 2nd level reporting confidence at a third that of the level of 3rd level graduates. Compounding this finding, 52% of respondents reported receiving little or no training in CPC. Additionally, respondents cited restricted or no access to online journal or materials due to poor links via PHECC Registered Training Institutions or representative bodies to academic library access impacting on their ability to complete the didactic element of CPC.  
Recommendations: It is recommended that the PHECC 2014 EMT Education and Training Standard (2) be updated to include standardised CPC education for newly qualified EMTs. To fulfil case studies, reflective practice and literature reviews, volunteer EMTs require access to online journals and treatment information beyond the pre-hospital arena, all of which require immediate and viable solutions for successful completion of CPC by EMTs.

References
1. PHECC. Continuous Professional Competency for Emergency Medical Technicians. 2017; Naas, Ireland.

A11.ISS. It's good to talk! Reflective Discussion Forums to support and develop Reflective Practice among Pre-Hospital Emergency Care Practitioners in Ireland.  
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https://doi.org/10.32378/ijp.v3i2.157

Background: Since the mid 1980's, reflective practice has become formally acknowledged and adopted as a key strategy for learning and has become one of the cornerstones of medical education for doctors, nurses, and many of the allied healthcare professions. In the education of pre-hospital emergency care practitioners in Ireland, it is only in the last decade that the notion of reflective practice has been tentatively approached. Indeed until recently it has largely been ignored by practitioners and educators alike, who have been slow to engage with this new way of learning. This paper explores the attitudes of practitioners to the use of a reflective discussion forum to encourage and support reflection and reflective practice among pre-hospital emergency care practitioners in Ireland. It also examines the experiences of practitioners who participated in a collaborative reflective discussion forum.  
Literature: The research was informed by reviewing literature from a number of areas including: Adult Learning, Reflective Practice, Educational Research directly relating to Emergency Medical Services (EMS), and EMS & Nursing Journals and publications. Methodologies: This paper is part of a larger project which consisted of three cycles of action research. Data was collected via an online survey questionnaire, and by conducting a series of semi-structured interviews with participants in the reflective discussion forum. These included all three clinical levels of pre-hospital emergency care practitioners and the three hierarchical levels within the organisation. Findings: The collaborative reflective discussion forum was found to be beneficial. Among the benefits cited were, the opportunity to draw on the experience of more experienced colleagues, the development of critical thinking skills, and the potential for use as part of a mentoring process. It was also felt that the collaborative nature of the forum had the potential to improve workplace relationships through the empowerment of the staff. Concerns were raised regarding the potential for abuse and misuse, particularly in relation to the areas of patient confidentiality and a lack of trust within organisations. Recommendations: The establishment of a regular Reflective Discussion Forum within organisations as a key learning strategy. Any collaborative forum must be chaired by a trusted, experienced and highly skilled facilitator. A learning contract for all participants and faculty, including a confidentiality agreement, must be in place prior to the establishment of any collaborative forum.
A12.ISS. Strategies for incorporating patient safety education in paramedic education using the IHI Open School.
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Introduction: Every year, thousands of patients die and millions are harmed by medical care provision. Paramedics care for patients in dynamic, and challenging environments every day, which creates conditions that are ideal for mistakes to occur and for harm to be caused as a result. Knowledge of patient safety is recognised as a competency for paramedics in several jurisdictions, yet general awareness among paramedics of patient safety issues remains poor. The Institute for Healthcare Improvement (IHI) Open School courses were identified as a potential solution to this identified gap. These courses have been successfully integrated into various health professions education programs in other institutions; however, no literature was discovered which discussed the integration of these courses into paramedic education. Methods: Eight online courses from the 13-course IHI Basic Certificate in Quality and Safety were embedded into the curriculum of a professional issues class in a paramedic diploma program in Ontario, Canada. Courses were completed outside of classroom time over one semester, and a percentage of activity marks for the class were awarded to students on the completion of the eight courses. Students provided a copy of certificates to prove completion of training. Results: In this pilot program, 41 paramedic students in the class (98%) completed all 13 courses, and were awarded the IHI Basic Certificate in Quality and Safety. Students described the courses as “highly applicable to paramedicine and pre-hospital care”. In addition, students state that completing the certificate gave them knowledge of “the means by which change can be enacted”. The completion of the courses outside of class time was achievable, and feedback from students has been overwhelmingly positive. An additional 43 students are currently enrolled in the courses, with completion expected by December 2018. Conclusion: The IHI Open School courses are an easy to implement strategy for paramedics looking to gain a brief, concise education on quality and patient safety. It is our goal to integrate the IHI Open School Basic Certificate across all classes in the two-year diploma program. We hope this will lay a foundation for professional practice that is based on safe, high-quality care provision.

A13.ISS. Driving me crazy: the effects of stress on the driving abilities of paramedic students.
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https://doi.org/10.32378/ijp.v3i2.163

Background: Previous research has demonstrated that stress has a negative impact on the performance of paramedics while performing medical related tasks. Acute stress has also been shown to negatively impact the driving abilities of the general population increasing the number of critical driving errors performed. No literature was discovered that discussed the effects of stress on the driving abilities of paramedics. Methods: Paramedic students underwent a driving ability assessment in a driving simulator. We then exposed them to a stress inducing medical scenario. Another driving assessment was then conducted. The numbers, and types of errors were documented before and after the scenario. Results: 36 students participated in the study. Paramedic students demonstrated no increase in overall error rate after a stressful scenario, but demonstrated an increase in three critical driving errors; failure to wear a seatbelt (3 baseline v 10 post stress, p= 0.0087), failing to stop for red lights or stop signs (7 v 35, p= <0.0001), and losing controlling of the vehicle (2 v 11, p= 0.0052). Conclusion: Paramedic students demonstrated an increase in critical driving errors after a stressful simulated clinical scenario. Paramedics are routinely exposed to acute stress during the course of their working day. This stress could increase the number of critical driving errors that occur. These results reinforce the need for further research, and highlight the potential need for increased driver training and stress management education in order to mitigate the frequency and severity of driving errors made by paramedics.

Bibliography
A14.ISS. Even better than the real thing? Using video assisted structured reflection in Simulated Clinical Scenarios and Real-Life Clinical Experiences in the Flipped Classroom.

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https://doi.org/10.32378/ijp.v3i2.159

Background: This paper explores the attitudes of practitioners to the use of video assisted structured reflection in simulated clinical scenarios and real-life clinical experiences in the context of a Flipped Classroom to encourage and support reflection and reflective practice among pre-hospital emergency care practitioners in Ireland. It also examines the experiences of practitioners who participated in this process. Methodologies: This paper is part of a larger project which consisted of tree cycles of action research. Data was collected via an online survey questionnaire, and by conducting a series of semi-structured interviews with various stakeholders. These included all three clinical levels of pre-hospital emergency care practitioners and educators from emergency service providers, private ambulance services, and voluntary organisations.

Findings: When combined, a simulation experience with audio-visual recording and a structured model of reflection in the context of a Flipped Classroom has11(291,785),(709,898) become a powerful learning experience. The process of a simulation experience with audio-visual recording, and a structured model of reflection appears to dovetail very nicely with the concept of the Flipped Classroom. The review of footage from audio-visual recording in the real-life clinical context provides a reliable and accurate means of evaluating clinical performance. Concerns were raised about the potential for abuse and misuse of audio-visual recordings. There are perceptions that audio-visual footage of real-life clinical experiences could potentially be used for unintended purposes such as, disciplinary procedures. Recommendations: Since the process of combining a simulation experience with audio-visual recording and a structured model of reflection in the context of a Flipped Classroom has shown great promise as a learning experience, a larger scale pilot study is proposed. Develop a pilot programme with student practitioners during their undergraduate internship, and evaluate its findings. Develop a policy which clearly defines the use of audio-visual recording footage prior to the commencement of the pilot programme. A learning contract for all participants and faculty, including a confidentiality agreement, must be in place prior to the establishment of the process.


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Introduction: When a member of the public calls for an ambulance through the 999/112 system, the only permitted course of action for the responding National Ambulance Service (NAS) staff is to convey the patient to an emergency department. Regardless of the clinical level, NAS staff do not have the authority or scope of practice to discharge the patient from the scene or make any other arrangements for the treatment of that person. (1) The patient, meeting certain criteria, can refuse treatment or transport (RTT) of their own volition. (1) Mortality rates for non-conveyed patients vary from 0.2%-3.5% within 24hours and are twice those of patients discharged from an emergency department. (2, 3) In 2017, the refusal to travel rate in Ireland jumped from 7-8% of calls (2012-2014) to a national average of 11.3% (24,735) of total AS1 calls. (4) Although this level of non-conveyance would still be below international norms the rate of increase was concerning. (3) Aim: A quality improvement initiative necessitated identification of baseline RTT information. Methods: Retrospective data collection was conducted on all calls closed with a ‘refusal to travel’ or ‘refusal of treatment’ occurring between 1st Jan 2017 and 9th Nov 2017 and was gathered from the National Emergency Operations Centre (NEOC). Results: The top three dispatch classification that resulted in RTT were falls, unconsciousness or near fainting, and generally unwell patients. This was followed by chest pain, seizures, traffic incidents and breathing problems. It was noted that the time at which RTT calls occurred peaked nationally between 2000 and 2059. In the Southern area, peak RTT occurred between 2000-2059h and 0000-0100. 33.6% of RTT calls in the Southern Area were designated as Delta calls. This designation requires an advanced life support and a blue light response and is the call level with the second highest acuity below an Echo call, the designation for cardiac or respiratory arrest. Conclusions: The NAS specifically utilises a risk adverse triage system. Examination of dispatch priorities may be warranted. The peak close of RTT calls between 2000-2059 may align with a shift changeover at 2000. Further study is required.

References


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Background: The unpredictability of the nature of the next call is a basic feature of Emergency Services; the call could vary from a trauma victim, to a hypothermic patient or a prehospital birth. All patients (other than those who are pyrexic) have in common the need for a warm environment to prevent deterioration in their condition. Multiple observation studies found that patients suffering from various levels of trauma, arrived in the Emergency Department with hypothermia. Hypothermia, a core temperature <35°C, affects multiple organ systems, and is associated with poor outcomes including death. Also, cold has been reported as negatively impacting the comfort of an ill or injured patient. It is currently assumed that the ambulance patient compartment’s heater (Air Top Evo 40, Webasto™, Gilching, Germany), produces enough heat to offer thermal comfort and to help prevent further decrease of body temperature in the hypothermic patient. However, what is not clear is for how long and to what ambient temperature the ambulance’s patient compartment needs to be heated, to provide the ambulance’s furniture with sufficient stored energy to maintain the patient at an appropriate temperature for the duration of their transport to hospital. We consider how current practices and behaviours may need to be adapted to improve patient comfort and outcomes.

Objectives: This study is to determine the feasibility of measuring and monitoring temperatures in a new generation Emergency Ambulance. The overarching objective, is to optimise patient comfort, outcome and prevention of hypothermia.

Methods: Using thermocouples, a data logger and a thermal camera to record temperatures at strategic locations in the patient compartment, we recorded the variation of temperature in a typical new generation Emergency Ambulance compliant with the CEN-EN 1789:2007 standard. Thermal imaging and temperature logging studies were conducted on in May/July 2018. Temperature was logged for 24 hours. The locations examined were the stretcher mattress surface, low and high blanket storage lockers and the outdoor ambient air. The vehicle was located outdoor, facing west-north-west.

Anticipated outcome: This study will provide us with data that can be used to improve patients’ thermal comfort through behaviour and practice change.

Results: The thermal camera images show a significant variation of surface temperature throughout the patient compartment. Preliminary temperature logging experiments show a measurable difference in temperatures at the areas of interest relative to the outside temperature over 24 hours. Some variations in rates of cooling and warming in each area have been observed during the cool – heat period; the stretcher mattress is the slowest to rewarm.

Conclusion: The proposed method of measuring temperature variation in targeted locations in the patient compartment of a new generation ambulance proves efficient and could be used in further studies.
A17.ISS. Refusal to Travel in the National Ambulance Service. A Patient Care Report examination.
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Introduction: Every patient has the right to refuse treatment and, or transport (RTT) to hospital (1). The National Ambulance Service (NAS) has operated under a clinical guidance document that requires an assessment of patient capacity and a baseline amount of data to be gathered on every patient to facilitate the patient making an informed decision (2,3). An increase in the rate of non-conveyance of patients and refusal to travel calls as well as an increasing number of complaints prompted a quality improvement initiative based on improving and facilitating a shared decision-making model. Aim: For patients who RTT, to establish a baseline quality of information collected and recorded on a Patient Care Report. Methods: All NAS incidents closed with a refusal of treatment or transport, from 1st January 2017 to 9th November 2017 were identified from National Emergency Operation Centre (NEOC). A random selection of 75 patient care reports (52 paper and 23 electronic) were identified and reviewed. Compliance with the refusal to travel guidance document was measured. Results: 31% of paper PCR’s reviewed were missing a complete set of vital signs. An average of 48.4% (median 48.4%, range 36.5% to 61.5%) were missing a complete second set of vital signs. 17.3% of combined forms were missing the patient’s chief complaint and 38.7% had no practitioner clinical impression entered. 24% had no capacity assessment completed. Conclusion: Clinical information recorded by NAS staff did not meet the clinical guidance document requirements. It is impossible to assess what information was given to a patient to facilitate a shared decision-making model. The quality of NAS documentation can be improved for patients who refuse to travel.

A18.ISS. Reflections on Reflective Practice among Pre-Hospital Emergency Care Practitioners in Ireland.
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Background: This paper examines the level of engagement of Irish pre-hospital emergency care practitioners with reflection and reflective practice. It also explores the attitudes of practitioners to reflection and to methodologies designed to support reflective practice such as reflective discussion and video-assisted structured reflection. Finally it outlines the main barriers to reflection, both individually and collaboratively, and reflective practice gaining widespread acceptance as key learning strategies among pre-hospital emergency care practitioners and educators in Ireland.

Methodologies: This paper is part of a larger project which consisted of three cycles of action research. Data was collected via an online survey questionnaire, and by conducting a series of semi-structured interviews with various stakeholders. These included all three clinical levels of pre-hospital emergency care practitioners and educators from emergency service providers, private ambulance services, and voluntary organisations.

Findings: Many practitioners consider themselves to be reflective practitioners. However, very few of them use a structured model of reflection. Reflection, and reflective practice are not part of the education standards for practitioners in Ireland, and consequently receive very little attention in most education programmes. Practitioners within voluntary organisations perceived that reflective practice was encouraged by their organisation in greater numbers than those from other organisations. Collaborative forums were perceived to be beneficial, although concerns were raised about their potential for abuse and misuse. These concerns appear to emanate from a lack of trust within certain organisations.

Recommendations: Reflective practice to be included in the education standards for all levels of practitioners in Ireland. Develop and roll-out an education programme for existing practitioners regarding reflection, reflective learning, reflective practice, and structured models of reflection, as part of their CPC requirements. Provide education for all EMS course faculty regarding reflection, reflective learning, reflective practice, and structured models of reflection. A learning contract for all participants and faculty, including a confidentiality agreement, must be in place prior to the establishment of any collaborative forums. Further research to explore the reasons for lack of trust within organisations should be undertaken. Further research is recommended to explore the reasons for the disparity of opinion between volunteer and professional organisations regarding the encouragement of reflective practice.
A19.ISS. Is There A Role For Paramedics In Primary Care In Ireland: An Exploratory Study.
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Background: Paramedics are reported to be the most underutilised profession working within rural areas, due to the paucity of service requirements.(1) Infrequent opportunities to practice particular skills can lead to reduction in levels of confidence and competence that can have significant risk and safety ramifications for practitioners and patients.(2). Traditionally paramedic practice provides emergency care and transport within the community, but current ambulance service models within rural Ireland may be inefficient and contributing to hospital overcrowding and increased healthcare costs.(3) Alternative models of healthcare are implemented within alternative rural jurisdictions such as Australia and Canada that aims to address issues of practitioner underutilisation, skill retention and healthcare personnel shortages.(4) Rationale: Ireland’s population is ageing, with increased co-morbidities and reports of current and predicted workforce shortages in general practice.(5) With rising demands on general practitioners (GPs), measures to increase their supply and retention has become a challenging problem. Potential solutions to this will require immediate change to established work practices, to cater for current and predicted healthcare needs. Paramedics with advanced skills (APs) could alleviate some of the shortages identified and enhance paramedic profile by transferring some tasks deemed appropriate from GPs to APs within both urban and rural communities. This process is globally known as task shifting where some competencies are transferred to alternative healthcare practitioners with less training. Aim: To ascertain the attitudes and opinions of paramedics and GPs associated with GEMS - UL, towards a new concept of joint collaboration in primary care that should be of mutual benefit to both groups, and also to identify potential barriers. Methodology: Questionnaire survey of graduate Paramedics and General Practitioners associated with University of Limerick Graduate Entry Medical School and Paramedic Studies to identify competencies that GPs would deem appropriate to reassign to APs and ascertain both groups’ opinions towards this new concept of joint collaboration and practice. Conclusion: Studies report successful outcomes in similar models of joint collaboration to support shortages of GPs in rural healthcare. Collaboration on this scale has been shown to be beneficial for enhancing the paramedic profession within the wider healthcare system while providing essential support within primary care and general practice. Potential benefits have been reported with reduced emergency department admissions and early intervention in the management of chronic disease.

References
A20.ISS. General Practitioners, Paramedics and the Primary Care Team; the Potential for Mutual Benefit.
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Background: General practice is entering a challenging phase. Increased workload and complexity with an increasing consultation rate is coming about as a result of an ageing population, extension of care that is free at the point of delivery to more people, and the trend to move routine care of chronic illness from secondary care to primary care.(1) This is all coming about at a time when the GP population is ageing and doctors graduating from GP training are choosing to emigrate or work part time.(2) It will be difficult to continue this work without changes to current practice. In the past nurses have been employed by GPs to help deliver care (3), however there is a shortage of nurses that challenges this model. It has been suggested that the unique skillset of Paramedics would complement those of GPs.(4) Various models of paramedics working primarily in primary care have been described. This practice of paramedics working with and under the guidance of GPs would be expected to have the benefit of keeping patients out of hospital and managed in the community. The skillsets of paramedics would be kept up by appropriate deployment in the community, especially in quieter country areas where their presence is necessary geographically for emergencies, but they do not get to practice their skills at an optimum rate. Barriers exist to such deployment but can be overcome resulting in a well-functioning PCT with good levels of interprofessional collaboration and generally positive effects.(5) Paramedics have shown a willingness to be engaged in such work.

Proposed methodology: Questionnaire survey of GPs associated with the UL GEMS (ULEARN) based on what skills they would use that would be shared by paramedics. Attitudinal study of GPs and paramedics on their attitudes towards this novel way of practice. Anticipated outcomes: GPs and paramedics have shown flexibility in the past. Literature review indicates that this is ongoing. It is anticipated that this would mean that respondents would attitudinally favour this move to make paramedic practitioners an integral part of the primary care team.

References
A21.EMSG.ISS Defining Mentorship in Prehospital Care: A Qualitative Analysis of the Characteristics of Prehospital Mentors
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Introduction: This study sought to begin to define the current understanding of the term mentor within the prehospital environment (emergency medical services or EMS) as described by nomination letters written by mentees for a newly launched prehospital mentor award. Methods: The John Ross Paramedic Mentor Award was created in the fall of 2015 to recognize outstanding mentors in prehospital care. In the spring of 2016, nineteen nomination letters were received from registered prehospital professionals in Alberta detailing why their mentor should receive the mentor award. Written text from the nominations for this peer nominated award were analyzed using thematic and content analysis (n=19) to identify the current understanding of mentorship in EMS, desirable qualities of prehospital mentors, and what a successful mentoring relationship looks like in the prehospital environment from the perspective of mentees. Demographic data of the mentees and mentors were obtained. Results: Mentees and nominated mentors had varying years of experience, worked in diverse practice areas within prehospital care and represented varying scopes of practice (PCPs and ACPs). Three themes were identified from thematic analysis of the nomination letters 1) nominators seek to emulate their mentors, 2) mentors create a safe and nurturing environment, and 3) mentors act as advocates. In addition, content analysis was used to identify a number of desirable professional and personal traits of prehospital mentors. Conclusion: This study describes the qualities of prehospital mentors and identifies a number of common elements in a successful mentoring relationship (from the perspective of the mentee). These results highlight exceptional mentoring that is already occurring within the prehospital care environment. This research has the potential to provide guidance to those who aim to support both formal and informal mentoring within the prehospital care environment.