The aim of this Current Awareness Update is to provide a digest of information supporting evidence based practice in pre-hospital, ambulance and emergency services. This will include recent research, news and policy items, and relevant reports. The Current Awareness Update will focus upon resources from NHS Evidence which are freely available to Ambulance Trust staff.

The Update has been commissioned by the National Ambulance Research Steering Group which comprises research leads from ambulance trusts in England, Scotland and Wales and other experts and groups supporting pre-hospital research. The aim of the group is to support the strategic development of ambulance and pre-hospital research whether leading, collaborating in or using research.

The Emergency Services Current Awareness Update is published bi-monthly, with each issue covering the following items:

- **NHS Evidence Update**
- **Web of Evidence**
  This issue takes a closer look at the appraisal and review of research.
- **Research & Best Practice**
  Each issue provides summaries of recent research relevant to pre-hospital and emergency care. The Emergency Services Current Awareness Update focused upon articles which are freely available in full text, with internet links provided.

We hope that you find the *Emergency Services Current Awareness Update* useful.

**Feedback**

The *Emergency Services Current Awareness Update* was produced by:

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*Lincolnshire Knowledge and Resource Service*

*(on behalf of the National Ambulance Research Steering Group)*

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Major Changes to NHS Evidence

On 10th May 2011 the former National Library for Health was integrated into the developing NHS Evidence website – www.evidence.nhs.uk

A significant consequence of these changes is that the Specialist Collections, including the Emergency and Urgent Care Specialist Collection, were not transferred to the new integrated site and have been discontinued.

Take a Tour of the New Site at:
http://www.evidence.nhs.uk/take-a-tour/overview-video

The Department of Health has created a webpage listing documentation relating to ambulance services:

Department of Health - Guidance for the NHS in delivering ambulance services
On these pages you can find current documents of use to the NHS in delivering clinically effective, personal and safe ambulance services. Guidance documents which cover other parts of the urgent and emergency care pathway, as well as ambulances, are available via the cross-cutting guidance documents page.

News, Reports & Policy

Ambulances adapted to cope with increasing number of obese patients
Ambulance across the country are being adapted revamped with wider stretchers and lifting gear to cope with the increasing number of obese patients.
www.telegraph.co.uk/health/healthnews/8300156/Ambulances-adapted-to-cope-with-increasing-number-of-obese-patients.html

Emergency access to establishments for ambulance services.
Letter from DH Offender Health and National Offender Management Service refreshing guidance to minimise delays getting emergency services into prisons following a recent report by the Prison and Probation Ombudsman.
www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_124565

The NHS standard contracts for acute hospital, mental health, community and ambulance services and supporting guidance 2011-12 (effective from 1 April 2011).

Guidelines & Toolkits

Therapeutic hypothermia following cardiac arrest
The National Institute for Health and Clinical Excellence (NICE) has issued full guidance to the NHS in England, Wales, Scotland and Northern Ireland on Therapeutic hypothermia following cardiac arrest. Description: People who have a cardiac arrest can sometimes develop neurological problems because of the lack of oxygen to the brain. In this procedure, after resuscitation a cooling device is used to reduce the person’s core temperature to 32–34°C to reduce the risk of developing neurological problems.
http://guidance.nice.org.uk/IPG386

Guideline on the management of alert, adult patients with potential cervical spine injury in the Emergency Department
This guideline provides recommendations on best practice for the initial management of alert, cooperative adult patients whose mechanism of injury has the potential to result in blunt or penetrating injury to the cervical spine. It also provides guidance on which patients should have imaging of the cervical spine performed and the imaging modality of choice.
http://secure.collemergencymed.ac.uk/code/document.asp?ID=5718
The March 2011 issue of the Emergency Medicine Journal published abstracts from 21 papers presented at the Faculty of Pre-hospital Care Scientific Conference in 2009. For reasons of space, I have only provided basic title and author details for the papers, although you will notice that some of them have since been published in the main journal and feature again later on in this Update.

The abstracts of all other papers can be viewed at the links provided. There are currently no full text versions of these presentations.

Abstracts selected through the 999 EMS Research Forum peer review process and presented orally and by poster at the Faculty of Pre-hospital Care Scientific Conference 2009.

Prize winners

**The Zoll prize for Highest Quality Research was awarded to Patricia Coleman Sheffield University**

War & peace? Strategies by emergency care practitioners to integrate into health care teams in the UK
Coleman Patricia, O'Keeffe Colin, Mason Suzanne, Emergency Medicine Journal J 2011;28 237
http://emj.bmj.com/cgi/content/abstract/28/3/237-a?etoc

**JRCALC prize for Research most likely to affect practice was awarded to Gareth Campbell North East Ambulance Service NHS Trust**

Incidence of peri-opiate nausea and vomiting in the pre-hospital setting: an intermediate analysis
Gareth Campbell, Malcolm Woollard, Sally McLure, Jay Duckett, Robert Newcombe, Tom Clarke
Emergency Medicine Journal J 2011;28 237
http://emj.bmj.com/cgi/content/abstract/28/3/237-b?etoc

**EMJ prize for Best Poster was awarded to Dr Richard Lyon Scottish Ambulance Service**

Back to basics--ECG impedance analysis for CPR quality control and feedback after out-of-hospital cardiac arrest: a pilot study
Richard Lyon, Paul Gowens, Gerry Egan, Peter Andrews, Gareth Clegg,
Emergency Medicine Journal J 2011;28 237-238
http://emj.bmj.com/cgi/content/abstract/28/3/237-c?etoc

Investigation of patient and practitioner views on improving pain management in the prehospital settings
Iqbal M, Spaight A, Siriwardena AN, Shaw D.  Emergency Medicine Journal J 2011;28 e1
http://emj.bmj.com/cgi/content/abstract/28/3/e1-b?etoc

Temperature post out-of-hospital cardiac arrest: the TOPCAT study
http://emj.bmj.com/cgi/content/abstract/28/3/e1-c?etoc

Before the fall: a discussion paper on the organisational difficulties of setting up complex randomised control trials in emergency pre-hospital care
http://emj.bmj.com/cgi/content/abstract/28/3/e1-d?etoc

Just saying 'No'? factors associated with patients' non-acceptance of ambulance transport against clinicians' advice
http://emj.bmj.com/cgi/content/abstract/28/3/e1-e?etoc

Keeping the beat: does music improve the performance of chest compression by lay persons?
http://emj.bmj.com/cgi/content/abstract/28/3/e1-f?etoc
SAFER 2: support and assessment for fall emergency referrals (part of the SAFER Research Programme)
Gaze S. Emergency Medicine Journal J 2011;28 e1
http://emj.bmj.com/cgi/content/abstract/28/3/e1-h?etoc

Can older people who fall be identified in the ambulance call centre to enable alternative responses or care pathways?
http://emj.bmj.com/cgi/content/abstract/28/3/e1-i?etoc

'Time well spent?': a correlation between total time on-scene (TOST) and interventions delivered for an Aero medical retrieval service
http://emj.bmj.com/cgi/content/abstract/28/3/e1-j?etoc

EMS crews’ attitudes towards working with pre-hospital doctors in the field
http://emj.bmj.com/cgi/content/abstract/28/3/e1-k?etoc

Does the introduction of a targeted heart failure training intervention improve diagnostic accuracy amongst undergraduate paramedics assessed through medical simulation?
Edwards T., Emergency Medicine Journal J 2011;28 e1
http://emj.bmj.com/cgi/content/abstract/28/3/e1-l?etoc

Factors associated with adverse clinical features in patients presenting with non-fatal self-poisoning
http://emj.bmj.com/cgi/content/abstract/28/3/e1-m?etoc

Learning effect of repeat clinical skill performance in a CBRN suit
Bowen JM, Castle N. Emergency Medicine Journal J 2011;28 e1
http://emj.bmj.com/cgi/content/abstract/28/3/e1-n?etoc

How can we prevent overdoses and what works? Systematic review of interventions for non fatal poisonings
http://emj.bmj.com/cgi/content/abstract/28/3/e1-o?etoc

Case study of a computer decision support system for emergency care
http://emj.bmj.com/cgi/content/abstract/28/3/e1-q?etoc

Cold mountain: do delays to hospital increase the risk of hypothermia in mountain casualties?
Jones B, Dykes L. Emergency Medicine Journal J 2011;28 e1
http://emj.bmj.com/cgi/content/abstract/28/3/e1-r?etoc

Improving the quality of ambulance crew hand-overs: a qualitative study of knowledge transfer in emergency care teams
http://emj.bmj.com/cgi/content/abstract/28/3/e1-s?etoc

Pre-hospital dressings use in soft tissue trauma--is there any conformity or plan
http://emj.bmj.com/cgi/content/abstract/28/3/e1-t?etoc

Developing new performance indicators for ambulance service category B calls
Turner J, Bjarkoy M. Emergency Medicine Journal J 2011;28 e1
http://emj.bmj.com/cgi/content/abstract/28/3/e1-u?etoc
Research & Best Practice

The following research papers have been published, or made available online, in the last couple of months. This is not a comprehensive overview, but represents papers which are freely available in full text, with current internet links provided.

Some of the papers require you to log in with a free NHS Athens username and password. To create your own Athens username and password, simply visit the site below: https://register.athensams.net/nhs/

The links to the Athens papers will take you initially to the abstract. To read the whole paper, choose either ‘full text’ or ‘pdf’ from the options on the abstract page. The full text option will present the article as a single web page, the pdf option will open as a digital copy of the original paper. Selecting either will open a page with the following link:

A second page will ask you to Log In With Athens, before you are taken to the Athens Authentication page where you can type in your username and password.

Systematic Review

A summary of the medical literature that uses explicit methods to perform a thorough literature search and critical appraisal of individual studies and that uses appropriate statistical techniques to combine these valid studies.

Oxygen Therapy for Acute Myocardial Infarction

Recommendations for the use of oxygen therapy for acute myocardial infarction feature widely in international guidelines. However there is uncertainty regarding its safety and efficacy. This systematic review was undertaken to determine the effect of inhaling oxygen on pain, death and complications. The authors report that although the published evidence suggests harm, this research evidence is sparse, of poor quality and published before advances in therapies such as reperfusion. The authors recommend further research.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/emj.2010.103564v1?papetoc

The oxygen therapy guidelines can be obtained from the link below. http://www.jrcalc.org.uk/newjrcalcguidance/oxygen_guideline_combined220409.pdf

The research papers which follow have been categorised by theme:

Research – Service Development and Quality

Research – Continuing Professional Development

Research – Treatment and Interventions

Research – Devices, Medication & Technology
**Research – Service Development and Quality**

**Ambulance Service Access to Physician Support for Critically Ill and Injured Patients**
A survey of all 13 regional UK ambulance services was undertaken to assess the availability and utilisation of physician support to ambulances for critically ill or injured patients. The 100% response rate to the survey revealed a picture of wide variations both geographically and diurnally, with only the London service having access to 24-hour physician support. The authors found extensive use of volunteer doctors and the charity sector in the rest of the UK.


The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/emj.2010.106963v1?papetoc

**Ambulatory Emergency Care**
The 2007 NHS Directory of Ambulatory Care for Adults lists 49 conditions which can be classified as ambulatory emergency care, and which may be managed without hospital admission. This paper discusses and comments upon a recent survey by the Royal College of Physicians which assessed the success of the AEC roll-out.


The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/extract/28/4/262?etoc

**Arctic Air Ambulance Services**
This study analysed air ambulance operations in the Norwegian Arctic to assess variations in diagnoses and flight patterns over a year, in a service dealing with fixed and seasonal factors of remoteness, darkness, rough weather and long flights. Of the 321 flights, 58% took place between April and August and the average flying time was just over three and a half hours. The authors note that this service is safe, but that increases in shipping and adventure-related activity may result in greater need.


The full paper can be obtained from the link below.
http://www.intjem.com/content/pdf/1865-1380-4-1.pdf

**Barriers to Incident Notification**
Following a 3-year study which commenced in 2005, this paper aimed to describe the nature and incidence of critical incidents, adverse events and errors in the prehospital setting, and the barriers to their monitoring and reporting. The identified barriers were categorised into seven themes including burden of reporting itself and fears related to disciplinary action, litigation, embarrassment and confidentiality breaches. The authors note an approach which may impact upon the reporting barriers might be a shift away from the blaming of the individual.

Jennings PA, Stella J. Barriers to incident notification in a regional prehospital setting. Emergency Medicine Journal, 2011;28 526-529

The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/28/6/526?etoc
**Developing the Ambulance Service in Norway**

This paper describes how the significant changes which the ambulance service in northern Norway has undergone over recent years have lead to changes in tasks performed, distances travelled, expenditure upon resources and competence as measured by education. The findings revealed a near-doubling of costs, a 13% increase in tasks and a 20% increase in the number of ambulance crew achieving the certificate of competence. The authors report that consequent improvements in treatment outcome may be measured by the implementation of the new electronic patient record.


The full paper can be obtained from the link below.
http://ukpmc.ac.uk/backend/ptpcrender.cgi?accid=PMC2885266&blobtype=pdf

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**Emergency Care for Older People in the Community**

This reports on a Paramedic Practitioner in Older People’s Support (PPOPS) scheme which was set up to provide community-based clinical assessment of older people who had contacted emergency services with minor acute conditions as an alternative to emergency department transfer. Satisfaction and impact of the scheme was assessed by a questionnaire survey of carers of elderly patients who had used the scheme, and those who had been transferred to the emergency department. Carers reported an increase in the level of care they were now providing, but this was significantly more for patients who had attended the emergency department. Carers of patients who had been treated by the PPOPS reported greater satisfaction with care and staff attitude.

Knowles E, Mason S, Colwell B. *An initiative to provide emergency healthcare for older people in the community: the impact on carers.* Emergency Medicine Journal J 2011;28 316-319

The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/28/4/316?etoc

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**Inappropriate 999 calls**

Using an online questionnaire, this study aimed to identify the number of people who can correctly identify situations where it would be appropriate to call an ambulance, based upon 12 common scenarios. The results showed that almost all of the 150 participants identified three out of the five scenarios which required an ambulance, although just under three quarters included a suspected stroke in this. Out of the seven scenarios where an ambulance was not required, only 2 were correctly identified by the majority of participants.

Kirkby HM, Roberts LM. *Inappropriate 999 calls: an online pilot survey.* Emergency Medicine Journal, February 2011, 10.1136

The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/emj.2010.092346v1?papetoc
Pre-Hospital Anaesthesia – UK Practice
The authors identified lead clinicians who were potentially performing prehospital anaesthesia for all UK prehospital services, and invited them to complete an online survey assessing team structure, prehospital anaesthesia processes, training, governance and the drugs and equipment in use. The survey made reference to prehospital practice and safety guidance from the Association of Anaesthetists of Great Britain and Ireland and aimed to produce a national overview of current practice. The authors found the majority of services to be complying with the recommendations but that areas of concern relating to training and the lack of trained assistants existed in many services.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/emj.2010.105304v1?papetoc

The Pre-Hospital Anaesthesia Guideline is available online at: http://www.aagbi.org/publications/guidelines/docs/prehospital_glossy09.pdf

Primary Percutaneous Coronary Intervention Service
This study compares the distribution of reperfusion therapies before and after the implementation of a percutaneous coronary intervention (PPCI) service in South-East Scotland. Data from over 600 patients showed that reperfusion treatment according to international guidelines, which combines prehospital thrombolysis, in-hospital thrombolysis and PPCI, is feasible in the UK but that there will be a differing treatment balance in urban and rural areas.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/28/3/230?etoc

Onboard Recording of Ambulance Driving Behaviour
DriveCam technology uses external and internal video to record events related to ambulance driving behaviour once preset g-force limits are exceeded. This paper evaluated whether the installation of this technology in a fleet of 54 ambulances, along with a formal feedback and review process, had impacted upon driving behaviour. The number of driving events and their categorisation by severity during the study period was recorded. The results showed that the proportion of all categories of event per mile and per response decreased over time, leading the authors to conclude that use of the technology and feedback changed driving behaviour.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/emj.2010.104034v1?papetoc
Out of Hospital Cardiac Arrest Survival in Ireland
A register of survivors of out-of-hospital cardiac arrest in the rural northwest of Ireland – SAVES – was established in 1992. This paper follows up the 80 survivors identified between 1992 and 2008, 66 of whom were traced, and discusses the characteristics of survivors and survival rates.


The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/28/5/437?etoc

Quality and Safety of Emergency Care Practitioner Care
This retrospective review of patient notes was undertaken to compare the quality and safety of care by UK Emergency Care Practitioners and non-Emergency Care Practitioners in three emergency settings – static, mobile (including ambulances) and out-of-hours primary care. The authors found care by ECPs received higher ratings in some aspects which were statistically significant, while other aspects showed equal ratings.


The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/emj.2010.104190v1?papetoc

Quality of Prehospital Motor Vehicle Accident Documentation
The quality of prehospital documentation, in terms of logistic, physiologic and mechanistic variables, was examined for 392 patients involved in road accidents in Norway. The authors found 25% of ground and 11% of air records could not be retrieved and that there were variations in levels of recording for a range of factors. The authors suggest that better tools, training and procedures are required to ensure documentation can be used as a quality criteria.


The full paper can be obtained from the link below.

Support and Assessment for Fall Emergency Referrals
Elderly people who have fallen account for many emergency ambulance calls. Half of these callers are left at home suggesting a community response might be more appropriate. This planned trial will assess the costs and benefits of hand-held computers with computerised decision support software which will assist paramedics in deciding who does, and who does not, require transport to hospital.


The full paper can be obtained from the link below.
http://ukpmc.ac.uk/backend/ptpmcrender.cgi?accid=PMC2824628&blobtype=pdf
Transport to Major Trauma Centres in Rural Areas
Based in Shropshire, this study aimed to quantify the number of serious road crashes occurring in rural areas which were either over 45 minutes by road or over 45 minutes by helicopter from a major trauma centre. The authors also looked at situations when the helicopter was unable to fly. Factors such as the weather were also taken into account. The authors reported that 30% of the incidents occurred over 45 minutes by road, but the helicopter was unable to fly, and they discuss the problems of transport to major trauma centres in rural areas.

Nutbeam T, Leaman A, Oakley P. Transporting major trauma patients from the margins of a UK trauma system. Emergency Medicine Journal, March 2011, 10.1136

The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/emj.2010.103762v1?papetoc

Research – Continuing Professional Development

Paramedic Interpretation of Ultrasound
Can advanced paramedics in the UK achieve acceptable competence in acquiring and interpreting diagnostic ultrasound images after two days of education and training? Focusing upon lung ultrasound, this trial found that following the two-day programme, all the paramedics passed the exam and achieved a standard which would equate to that reached by students on the thoracic module of the College of Emergency Medicine level 2 ultrasound programme.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/content/early/2011/04/21/emj.2010.106484.abstract

Pre-Hospital Rapid Sequence Intubation and Anaesthetists
Debate regarding the safe use of prehospital rapid sequence intubation is ongoing regarding the training and skills of the practitioner – should they been trained in anaesthesia? This study based in the Warwickshire and Northamptonshire Air Ambulance Service assessed the success rates in prehospital RSI by doctors from different specialties. The authors found non-anaesthetists had higher failure rates and suggest this is due to lack of opportunities to train and infrequent experience in the prehospital setting.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/28/5/428?etoc

Real-Time Feedback for CPR
The authors of this paper investigated whether using real-time audio and visual feedback during prehospital cardiopulmonary resuscitation increased the proportion of patients in whom spontaneous circulation returned. The authors found that audio and visual feedback increased conformity with guidelines but was not associated with an increase in spontaneous circulation return.


The full paper can be obtained from the link below. http://www.bmj.com/content/342/bmj.d512.full.pdf
Successful Physician Prehospital Rapid Sequence Intubation

Is prehospital intubation safe, and who should deliver it? Although success rates of between 97 and 100-% have been reported, there is evidence that prehospital rapid sequence intubation can be harmful. The authors analysed data relating to the speciality of the physician and the length of training received and found intubation by doctors with an anaesthetics background to be significantly better.

Harris T, Lockey D. Success in physician prehospital rapid sequence intubation: what is the effect of base speciality and length of anaesthetic training? Emergency Medicine Journal J 2011;28 225-229

The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/28/3/225?etoc

Research – Treatment and Interventions

Chest Compression-Only CPR Versus Conventional CPR

This nationwide Japanese study compared the effectiveness of cardiopulmonary resuscitation with chest compression only and conventional cardiopulmonary resuscitation on outcomes in the prehospital settings. The results showed conventional CPR to be associated with better outcomes for selected patient groups including younger people, patients where CPR was delayed and people whose arrest was non-cardiac in origin.

Ogawa T, Akahane M, Koike S et al. Outcomes of chest compression only CPR versus conventional CPR conducted by lay people in patients with out of hospital cardiopulmonary arrest witnessed by bystanders: nationwide population based observational study. BMJ 2011;342

The full paper can be obtained from the link below. http://www.bmj.com/content/342/bmj.c7106.full.pdf

An accompanying editorial discusses the findings of this research which suggests that although definitive evidence is lacking, either method is better than no CPR.

Jacobs, IG. Editorial : Chest compression or conventional CPR after out of hospital cardiac arrest? BMJ 22011;342:d374

The full text is accessible from the link below with an NHS Athens username and password. http://www.bmj.com/content/342/bmj.d374.extract

Collapse-to-Emergency CPR Intervals and Outcome

This retrospective study set in Japan analysed the relationship between the interval between collapse to emergency CPR and outcome in out-of-hospital cardiac arrest for all causes of arrest. Data from over 400,000 episodes in a three year period with intervals of between 3 and 30 minutes showed that for all longer collapse to emergency CPR time was associated with lower rates of survival at one month, and for neurologically favourable survival at one month.


The full paper can be obtained from the link below. http://ccforum.com/content/pdf/cc10219.pdf
Harness Suspension – First Aid Guidelines
This research, commissioned by the UK Health and Safety Executive aimed to clarify the evidence base relating to first aid management of people rescued from harness suspension. Following a review of the literature and a stakeholders workshop, recommendations for a guideline were drafted from nine papers.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/28/4/265?etoc

Prehospital Diagnosis of Apnoea in a Major Incidents
The short paper reflects on the need for accurate triage during multiple casualty chemical, biological, radiological or nuclear incidents in order to make the most effective use of resources, and proposes a colorimetric breathing detection system as a potentially useful aid in such circumstances.

Malpas M. Prehospital reflections: diagnosing apnoea at a multiple casualty chemical, biological, radiological and nuclear incident. Emergency Medicine Journal, 2011;10.1136

The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/emj.2011.113019v1?papetoc

Prehospital Pain Relief
The electronic care records of patients presenting with pain to the ambulance service of Victoria were examined in this study of prehospital pain relief. The authors found that for the majority of patients, clinically significant pain reduction while in the ambulance was not achieved, although there was some relief. Significant pain reduction was achieved for patients with the most severe pain.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/28/6/530?etoc

Research – Devices, Medication & Technology
Emergency Pre-Hospital Ultrasound
This study compared the standard of ultrasound examination in both moving and stationary ambulances and in a simulated emergency department to assess feasibility in the prehospital setting. The results suggest that performance in both ambulance settings is consistent with standards of performance in the emergency department.


The full text is accessible from the link below with an NHS Athens username and password. http://emj.bmj.com/cgi/content/abstract/emj.2010.096966v1?papetoc
Ketamine Use by Helicopter Emergency Medical Services
This 2-year study examined the use of ketamine to facilitate endotracheal intubation in helicopter emergency medical services, finding it to be an effective agent with in this setting, with complications similar to those in a controlled Emergency Department environment.


The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/28/6/521?etoc

Intravenous fluid resuscitation
This paper compares the flow rates of readily available intravenous infusion devices and compares the effect of adding pressure or a needle-free intravenous connector device for intravenous fluid resuscitation. The authors report that their findings that short, wide cannulae – but not needle-free devices -should be used when rapid fluid resuscitation is required.

Reddick AD, Ronald J, Morrison WG. Intravenous fluid resuscitation: was Poiseuille right? Emergency Medicine Journal J 2011;28 201-202

The full text is accessible from the link below with an NHS Athens username and password.
http://emj.bmj.com/cgi/content/abstract/28/3/201?etoc

Laryngoscope Comparison
This study aimed to compare glottic view, intubation time and success rate for out-of-hospital endotracheal intubation by paramedics with the Macintosh blade, the McGrath® Series 5 and the GlideScope® Ranger video laryngoscopes. The authors report a steep learning curve in the use of video laryngoscopy but that the results did not support prehospital use of the McGrath® and GlideScope® devices.


The full paper can be obtained from the link below.

Microbial Contamination of Ambulance Personnel Uniforms
Increased use is being made of antimicrobial impregnation in clothing and on surfaces. As there are potential toxic and environmental risks to users and patients this study aimed to assess the effect of incorporating silver threads into the uniforms of emergency personnel to see if this would reduce microbial contamination. The initial results showed no significant difference in contamination after several days of use between standard uniforms and those with silver thread. The authors suggest a larger study is required.

Groß R, Hübner N, Assadian O, Jibson B, Kramer A. Pilot study on the microbial contamination of conventional vs. silver-impregnated uniforms worn by ambulance personnel during one week of emergency medical service. GMS Krankenhaushygiene Interdisziplinar [2010, 5(2)]

The full paper can be obtained from the link below.
http://ukPMC.ac.uk/ukPMC/nctbi/articles/PMC2951103/pdf/KHI-05-09.pdf
Portable Treatment Technology
The increasing provision of emergency care in the community under UK government policy has seen developments in the capabilities of ambulance personnel to assess the urgency and appropriateness of care required by the patient. This study looks at the portable technology which is required to support these developing and expanding professional roles including personal kit, assessment packages and clinical workspace.


Value of a Rigid Collar
Although the immobilisation of the entire patient with an actual or potential cervical spine injury is recommended by international guidelines, the evidence supporting this is insufficient. The author here analyses the effect which adding a rigid collar to a head block on a backboard has on a patient’s range of motion. The results in 10 volunteers showed that adding the collar did not increase immobilisation, but did reduce the ability to open the mouth. The author concludes that adding the collar to a head block is both unnecessary and potentially dangerous.

Holla M. Value of a rigid collar in addition to head blocks: a proof of principle study. Emergency Medicine Journal, February 2011;10.1136