



Emergency Services Current Awareness Update

Issue 7, September 2009



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 the NHS National Library for Health 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 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**
This section focuses upon NHS Evidence resources.
- **'What's New' on the NLH Emergency Care Specialist Library**
Directing you to new resources added to this extensive online library.
- **News, Policy & Reports**
This section will feature items of news and policy issues which involve the emergency and pre-hospital services.
- **Research & Best Practice**
In each issue we will provide summaries of recent research relevant to pre-hospital and emergency care. The Update will focus 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

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Opening Internet Links

The links to internet sites in this document are 'live' and can be opened by holding down the CTRL key on your keyboard while clicking on the web address with your mouse

E-learning Database Tutorials

Did you know that you are eligible for free access to a suite of online databases through the NHS Evidence website? The databases include:

AMED (Allied Health & Medicine)
CINAHL (Nursing & Allied Health)
MEDLINE (Clinical & Medical)
PSYCHINFO (Psychology & Mental Health)
Health Management Information Consortium (Policy, Health Service Delivery)

To access the databases you need to register for a free NHS Athens username and password. You can do this by following the self-registration guide at the link below:

 <https://register.athensams.net/nhs/nhseng/>

The **East of England Healthcare Information Skills Trainers** have created two online tutorials to guide you through searching these healthcare databases. The tutorials are free and can be completed in your own pace whenever you choose. Each tutorial takes around 20 - 30 minutes to complete. The authors of the tutorials recommended that you complete Tutorial One if you are new to searching before going onto part two. The contents of the tutorials are listed below:

Tutorial One By the end of this tutorial you will be able to:

Access the databases
Perform a keyword search
Combine keywords
Apply limits to your search
View references and access full text where available
Repeat your search in another database
Remove duplicate references
Search by author and journal name.

 Start this tutorial at http://www.informs.intute.ac.uk/informs_perl/jump.pl?484-4891

Tutorial Two By the end of this tutorial you will be able to:

Perform a thesaurus search
Understand how to use Subheadings, Major Descriptors and Exploded
Save your search
Create an alert from your search results.

 Start this tutorial at http://www.informs.intute.ac.uk/informs_perl/jump.pl?484-4458

E-Learning Home Page

 <http://www.eel.nhs.uk/eel/elearning.htm>

What's New on NHS Evidence – Emergency and Urgent Care?

NHS Evidence – Emergency and Urgent Care is the new name for the National Library for Health Emergency Care Specialist Library. The specialist site regularly scans core information sources relevant to emergency care and provides a current awareness service available as an RSS feed or an email once a month of new additions to the library, these are available on the library's homepage.

 <http://www.library.nhs.uk/Emergency/>

The following selection is of relevance to pre-hospital emergency care.


Association of Air Ambulances

The Association of Air Ambulances has been established as a representative body for the Air Ambulance Services in the UK, which formally recognises the integral part that Air Ambulances play in the Medical Service provision.

 <http://www.library.nhs.uk/Emergency/ViewResource.aspx?resID=319232>

Early management of patients with a head injury

Updated guideline from SIGN, including pre-hospital assessment.

 <http://www.library.nhs.uk/Emergency/ViewResource.aspx?resID=30119>

“KEY TOPIC” guides from NHS Evidence

Emergency Care Services – this guide provides links to relevant policy and news resources, giving you an overview of the topic.

 <http://www.library.nhs.uk/Emergency/ViewResource.aspx?resID=239646>


JRCALC email alert service

New e-mail alert service from the Joint Royal Colleges Ambulance Liaison Committee (JRCALC). We will announce all new JRCALC updates of clarifications and law as they become available.

 <http://www.library.nhs.uk/EMERGENCY/ViewResource.aspx?resID=323062>


JRCALC update on Intraosseous Cannulation

Statement by The Joint Royal Colleges Ambulance Liaison Committee Guideline Development Group regarding intraosseous cannulation.

 <http://www2.warwick.ac.uk/fac/med/research/hsri/emergencycare/prehospitalcare/jrcalcstakeholderwebsite/alert/?item=thread&fid=3720&tid=106910&forumPage=1>


JRCALC update on STEMI in young adults

Statement by The Joint Royal Colleges Ambulance Liaison Committee Guideline Development Group regarding the lower age for treatment of ST-elevation myocardial infarction (STEMI) with thrombolysis in young adults.

 <http://www2.warwick.ac.uk/fac/med/research/hsri/emergencycare/prehospitalcare/jrcalcstakeholderwebsite/alert/?item=thread&fid=3720&tid=106907&forumPage=1>

Sepsis Pack

Recent guideline from the College of Emergency Medicine. Published May 2009.

 <http://www.library.nhs.uk/Emergency/ViewResource.aspx?resID=319812>

News, Policy, Guidelines & Reports

This section will feature items of news and policy issues which involve the emergency and pre-hospital services.

'111' 'phone number could help transform patient care

Ofcom and the Department of Health have opened their consultation on a new number for non-urgent care. A move that Ambulance Service Network director says could transform care for patients.

 <http://www.nhsconfed.org/PressReleases/2009/Pages/New-111-phone-number.aspx>

BASICS doctors provide Field Hospital

A temporary 'field hospital' has set up in a car park in Hanley, Staffordshire. Staffed by paramedics, nurses and doctors the aim is to ease the pressure on hospital services by treating 'drunk revellers' and injuries each Friday night. Read more below:

 http://www.basics.org.uk/press_area/basics_docs_provide_emergency_department_alternative

Resuscitation Council Resources

Emergency treatment of anaphylactic reactions

This Frequently Asked Question on the treatment of anaphylaxis relates to training in the use of adrenaline auto-injectors.

 <http://www.resus.org.uk/pages/FAQana.htm#upd4>

Fact sheet for e-ALS pilot course

The Resuscitation Council is conducting a randomised controlled trial into the effectiveness of web-based learning as an alternative approach to delivering some aspects of the Advanced Life Support (ALS) provider course. This fact sheet describes the structure and content of the e-ALS pilot course, which uses web-based e-Learning materials.

 <http://www.resus.org.uk/pages/eALSfact.pdf>

Recommended standards for recording DNAR decisions

These standards have been updated to include a model DNAR form for children under 16 years.

 <http://www.resus.org.uk/pages/DNARrstd.htm>

Scottish Ambulance Service Strategy

The Scottish Ambulance Service is currently developing its strategy for the future, in alignment with the Scottish Government's agenda for change to the NHS in Scotland, 'Better Health, Better Care'.

 <http://www.scottishambulance.com/InvolvingPatients/YourQuestions.aspx>

Research & Best Practice

The following research reports have been published in the last month weeks. This is not a comprehensive overview, but represents papers with a UK focus which are freely available in full text, with current internet links provided. Some of the papers require you to log in with an NHS Athens username and password – To create your own Athens username and password, simply visit the site below: <https://register.athensams.net/nhs/>

Advance Trauma Life Support Training in Hospitals

Although it does not address pre-hospital care, this systematic review from the Cochrane Institute examines evidence for the impact of advanced trauma life support training for hospital staff on mortality and morbidity following injury. The authors found little evidence of any positive impact on outcomes.

Jayaraman S, Sethi D. **Advanced trauma life support training for hospital staff.** Cochrane Database of Systematic Reviews, 2009;2(CD004173)



The full paper can be viewed freely from this link
<http://dx.doi.org/10.1002/14651858.CD004173.pub3>

Emergency Contacts to Primary Care Emergency Services in Norway

Emergency primary health care services in Norway provide casualty clinics, primary doctors on-call and local emergency medical communication centres (LEMC). This study examine data from contacts with the service to determine how often patients in life threatening situations, 'red responses', contacted the primary care emergency teams. The authors discuss the role of these services within the wider emergency service network.

Zakariassen E, Hansen EH, Hunskaar S. **Incidence of emergency contacts (red responses) to Norwegian emergency primary healthcare services in 2007 - a prospective observational study.** Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine 2009;17(30)



<http://www.sjtreem.com/content/17/1/30/abstract>

Emergency Identification and Treatment of Stroke

This American study follows the development and implementation of an Emergency Medical Services Stroke Care Toolkit designed to improve the emergency identification and treatment of stroke.

Williams I, Mears G, Raisor C, Wilson J. **An emergency medical services toolkit for improving systems of care for stroke in North Carolina.** Preventing Chronic Disease, 2009, 6(2):1545-1151



The full paper can be viewed freely from this link:
<http://ukpmc.ac.uk/picrender.cgi?accid=pmcA2687873&blobtype=pdf&tool=pmcentrez>

Extending the Scope of Rural Paramedics

This paper reports the extended scope of practice for rural paramedics in Tasmania which has seen paramedics working in multidisciplinary teams and developing working relationships with hospital staff.

Mulholland P, O'Meara P, Walker J, Stirling C, Tourle V. **Multidisciplinary Practice in Action: The Rural Paramedic – It's Not Only Lights and Sirens.** Journal of Emergency Primary Health Care 2009;7(2)



<http://www.jephc.com/uploads/PM990312.pdf>

Lung Sound Identification by Paramedic Students

Can undergraduate paramedic students accurately identify lung sounds to assess the respiratory status of a patient? This single-blinded study used audio files to assess 96 students from two Australian universities. The authors found inaccuracy among students from both universities and stress the need for more emphasis on this skill in undergraduate training.

Williams B, Boyle M, O'Meara P. **Can undergraduate paramedic students accurately identify lung sounds?** Emergency Medicine Journal, 2009;26(8):580-2



The full paper can be viewed freely from this link with an NHS Athens username and password: <http://emj.bmj.com/cgi/content/abstract/26/8/580>

Managing Poisoned Patients

This review aims to introduce the basic concepts for evaluating and managing poisoned patients.

Boyle JS, Bechtel LK, Holstege CP. **Review: Management of the critically poisoned patient.** Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine 2009;17(29)



The full paper can be viewed freely from this link with an NHS Athens username and password: <http://www.sjtem.com/content/17/1/29/abstract>

Measuring Acute Pain in Pre-hospital Care

Pain is by nature subjective, so how can clinicians measure its intensity? This paper reviews a range of measurement tools which have been validated in acute settings to assess whether they would be appropriate for pre-hospital care.

Jennings PA, Cameron P, Bernard S. **Measuring acute pain in the pre-hospital setting.** Emergency Medicine Journal, 2009;26(8):552-5



The full paper can be viewed freely from this link with an NHS Athens username and password: <http://emj.bmj.com/cgi/content/short/26/8/552?rss=1>

Medical Training for Fire & Rescue Services

This paper reports a questionnaire survey of UK fire and rescue services which aimed to ascertain the level and nature of the medical training currently delivered to UK fire fighters to support them providing in medical and pre-hospital care. The authors found considerable variation and call for a national standard based on core competencies to be set up.

Quinn L, Challen K, Walter D. **Medical and prehospital care training in UK fire and rescue services.** *Emergency Medicine Journal*, 2009;26(8):601-3



The full paper can be viewed freely from this link with an NHS Athens username and password: <http://emj.bmj.com/cgi/reprint/26/8/601>

NHS Emergency Services – Lesson from the Frontline

This news item from the British Medical Journal reports comments by the chairman of the former Healthcare Commission that NHS emergency services should learn from the care given to British troops wounded on the front line, described by the commission as "exemplary."

The report, *A Review of the Clinical Governance of the Defence Medical Services in the UK and Overseas* can be read online at:

http://www.cqc.org.uk/db/documents/Defence_Medical_Services_review_200903240217.pdf

Mashta O. **NHS can learn from "exemplary" service provided to UK soldiers on front line.** *BMJ*, 2009;338(b893)



The full paper can be viewed freely from this link with an NHS Athens username and password: http://www.bmj.com/cgi/content/extract/338/mar03_3/b893

Quality of Case Reporting in the Emergency Medical Literature

Many emergency medical journals publish case reports, rather than more 'evidence based' randomised trials and reviews. The authors assessed the quality of reporting in case reports, including information about the patient, condition, interventions and outcomes, and found critical details were often omitted which may consequently mislead the audience.

Richason TP, Paulson SM, Lowenstein SR, Heard KJ. **Case reports describing treatments in the emergency medicine literature: missing and misleading information.** *BMC Emergency Medicine* 2009;9



The full paper can be viewed freely from this link with an NHS Athens username and password: <http://www.biomedcentral.com/1471-227X/9/10>

Predicting Freedom from Adverse In-hospital Events in Acute Coronary Syndromes

This study which aimed to identify patients with non-ST-elevation acute coronary syndrome with a low likelihood of an adverse in-hospital event includes the use of pre-hospital statins as one of the fifteen factors predicting freedom from an adverse incident.

Brieger D, Fox KA, Fitzgerald G, Eagle KA, Budaj A, et al. **Predicting freedom from clinical events in non-ST-elevation acute coronary syndromes: the Global Registry of Acute Coronary Events.** Heart, 2009;95(11):888-94



The full paper can be viewed freely from this link with an NHS Athens username and password: <http://heart.bmj.com/cgi/content/extract/95/16/1355>

Pre-hospital Dressings in Soft-Tissue Trauma

The authors of this paper undertook a questionnaire study of all UK ambulance services to ascertain the extent of consistency in the early management of acute soft tissue injuries in the pre-hospital setting. The authors were particularly concerned with the use of dressings. Their findings revealed the lack of a national standard protocol.

Jones AP, Allison K, Wright H, Porter K. **Use of prehospital dressings in soft tissue trauma: is there any conformity or plan?** Emergency Medicine Journal, 2009;26(7):532-4



The full paper can be viewed freely from this link with an NHS Athens username and password <http://emj.bmj.com/cgi/content/abstract/26/7/532>

Pre-hospital Emergency Severity Score

This study involving nearly 18,000 patients reports the authors development of the first severity score suitable for Mobile and Emergency Resuscitation Services (MERS), containing twelve variables.

Hubert H, Guinhouya C, Wiel E, Vilhelm C, Goldstein P. **Construction of an adaptable and specific severity score for prehospital emergencies.** Emergency Medicine Journal, 2009;26(7):529-31



The full paper can be viewed freely from this link with an NHS Athens username and password <http://emj.bmj.com/cgi/content/abstract/26/7/529>

Pre-hospital Intervention in Sepsis

Severe sepsis and septic shock are time-critical conditions which the authors suggest are a patient group whose outcomes could be improved by focusing upon improving the pre-hospital care they receive.

Robson W, Nutbeam T, Daniels R. **Sepsis: a need for prehospital intervention?** Emergency Medicine Journal, 2009;26(7):535-8



The full paper can be viewed freely from this link with an NHS Athens username and password <http://emj.bmj.com/cgi/content/abstract/26/7/535>

Sepsis Pack

Recent guideline from the College of Emergency Medicine. Published May 2009.



<http://www.library.nhs.uk/Emergency/ViewResource.aspx?resID=319812>

Pre-hospital Management of Traumatic Brain Injury

This review paper in the British Medical Journal identifies the key points for pre-hospital management of severe traumatic brain injury including: rapid transfer to secondary care while preventing secondary injury, airway ventilation, prehospital endotracheal intubation and the risk of hypotension. The review states that patients may be best managed in a neurosurgical centre where they should receive definitive neurosurgical treatment within 4 hours of injury and reports there is no role for the routine use of corticosteroids in patients with head injury.

Hammell CL, Henning JD. **Clinical Review: Prehospital management of severe traumatic brain injury.** BMJ, 2009;338/(b1683)



The full paper can be viewed freely from this link with an NHS Athens username and password http://www.bmj.com/cgi/content/extract/338/may19_1/b1683

Pre-hospital Spinal Immobilisation

This US study looked at the efficacy of pre-hospital immobilisation guidance, the triage and management of spinal injuries and compliance with the guidelines

Myers LA, Russi CS, Hankins DG, Berns KS, Zietlow SP. **Efficacy and compliance of a prehospital spinal immobilization guideline.** International Journal of Emergency Medicine, 2009;2(1):13-7



The full paper can be viewed freely from this link <http://ukpmc.ac.uk/picrender.cgi?accid=pmcA2672978&blobtype=pdf&tool=pmcentrez>

Regional Coordination for Medical Emergencies

This paper examines whether a regional medical disaster resource centre, which was created in Gothenburg in Sweden following a multi-casualty disco fire, has achieved its aims of coordinating risk assessments, disaster planning and training of staff within the region and to be the executive point of contact to take immediate strategic command.

Khorram-Manesh A, Hedelin A, Örtengren P. **Regional coordination in medical emergencies and major incidents; plan, execute and teach.** Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine 2009;17(32)



The full paper can be viewed freely from this link with an NHS Athens username and password <http://www.sjtem.com/content/17/1/32/abstract>

Research Priorities in Pre-hospital Care

The 999 EMS Research Forum was recently commissioned by the Department of Health to review the evidence base, and the evidence gaps, for the delivery of pre-hospital emergency care. This paper presents the results of a study aimed at identifying research priorities based on the existing evidence.

Snooks H, Evans A, Wells B, Peconi J, Thomas M et al. **What are the highest priorities for research in emergency prehospital care?** Emergency Medicine Journal, 2009;26(8):549-50



The full paper can be viewed freely from this link with an NHS Athens username and password <http://emj.bmj.com/cgi/content/extract/26/8/549>

Respirator Use for Resuscitation of Contaminated Casualties

Fourteen paramedics performed simulated resuscitations in this study assessing which of two respirators would give the best respiratory protection for first responders resuscitating patients contaminated with hazardous substances. Treatment time and ease of breathing, mobility and communication were tested, with results suggesting that powered air-purifying respirators improve breathing ease while not adversely affecting mobility or treatment time.

Schumacher J, Gray SA, Weidelt L, Brinker A, Prior K, Stratling WM. **Comparison of powered and conventional air-purifying respirators during simulated resuscitation of casualties contaminated with hazardous substances.** *Emergency Medicine Journal*, 2009;26(7):501-5



The full paper can be viewed freely from this link with an NHS Athens username and password <http://emj.bmj.com/cgi/content/abstract/26/7/501>

Retrospective Analysis of RTAs

This study examined reports of trauma-induced pathologies found following road traffic accidents in Nottinghamshire between 1961 to 1986 and related these to the time of death. The authors discuss issues relating to RTA, including the accident site, ambulance journey times and extraction of the victim from the scene. They discuss the findings in relation to more recent reduction in fatalities and improvements in ambulance services.

Parry WR. **Road traffic accident fatalities: 1961 to 1986.** *Journal of Clinical Pathology*, 2009;62(6):561-3



The full paper can be viewed freely from this link with an NHS Athens username and password <http://jcp.bmj.com/cgi/content/full/62/6/561>

School Children Administering Basic Life Support

This study on the usefulness of CPR training in schools found that pupils as young as 9 were able to learn basic skills, including the use of AED, the recovery position and contacting emergency services successfully.

Fleischhackl R, Nuernberger A, Sterz F, Schoenberg C, Urso T et al. **School children sufficiently apply life supporting first aid: a prospective investigation.** *Critical Care* 2009;13



The full paper can be viewed freely from this link with an NHS Athens username and password <http://ccforum.com/content/13/4/R127>

Surgical Airways in Pre-hospital Care

This paper reports the experience of obtaining a surgical airway in a pre-hospital setting, and subsequent survival rates, based on a survey of members of the British and the Scottish Associations for Immediate Care.

Price RJ, Laird C. **A survey of surgical airway experiences and equipment among immediate care doctors.** *Emergency Medicine Journal*, 2009;26(6):438-41



The full paper can be viewed freely from this link with an NHS Athens username and password <http://emj.bmj.com/cgi/content/abstract/26/6/438>

Review of Paramedic Education in Australia

Paramedic Education: Developing Depth through Networks and Evidence-Based Research was published in 2008. Prepared on behalf of the Australian Learning and Teaching Council, the report is a collaboration between the nine Australian universities with undergraduate paramedic programmes in place in 2006 and the Australian College of Ambulance Professionals. Data for the report was collected from all states in Australia, and from interviews undertaken with key academics, industry leaders and paramedic unions from Canada, New Zealand and the United Kingdom.

Three aims lay behind the production of the report:

- i) To discover what can be learnt from international pre-hospital service providers, professional associations, universities and the research literature that might contribute to meeting the future educational needs of paramedic graduates in Australia.
- ii) To discover what international and national models of collaboration and working relationships between ambulance service providers, professional associations and universities offer best practice examples for fostering an ideal working relationship for the education of future paramedics.
- iii) To formally establish a paramedic academic network to foster the exchange of educational ideas, and to further collaborative educational practice within the tertiary sector.

The current issue of the online Journal of Emergency Primary Health Care contains a selection of papers discussing the report which can be read in full from the following link:

Australian Learning and Teaching Council. Paramedic education: developing depth through networks and evidence-based research. Final Report 2009

<http://www.jephc.com/Vol7Issue2/CarrickReportFull.pdf>

Willis E. GUEST EDITORIAL Paramedic education: developing depth through networks and evidence-based research - reflections twelve months on. Journal of Emergency Primary Health Care 2009;7(2)

This editorial assesses the progress made in the twelve months since the report was presented to the Australian College of Ambulance Professionals Conference 2008.

 <http://www.jephc.com/uploads/EW990357.pdf>

Jackson D. Paramedic education: developing depth through networks and evidence-based research - Where from and where to? Journal of Emergency Primary Health Care 2009;7(2)

This paper discusses the diversity in the approach to paramedic education between universities and industry revealed in the report and looks at areas of uncertainty and the future direction.

 <http://www.jephc.com/uploads/DJ9903581.pdf>

Marshall, H. Paramedic education: developing depth through networks and evidence-based research - Finding the ideal pedagogy. Journal of Emergency Primary Health Care 2009;7(2)

The author, a teacher, picks up the theme from the report that there is 'no consensus on what constitutes a work-ready paramedic' and discusses which subjects should underpin a paramedic curriculum.

 http://www.jephc.com/full_article.cfm?content_id=524