The College of Emergency Medicine

Patron: HRH The Princess Royal

Churchill House
35 Red Lion Square
London WC1R 4SG

Tel +44 (0)207 404 1999
Fax +44 (0)207 067 1267
www.collemergencymed.ac.uk

CLINICAL EFFECTIVENESS COMMITTEE

Clinical Guideline use in the Emergency Department

August 2011

Scope

This paper aims to review the availability, usefulness and applicability of clinical guidelines of relevance to Emergency Medicine in the United Kingdom (UK).

Reason for development

This paper was requested by the College of Emergency Medicine (CEM) Clinical Effectiveness Committee in response to a national survey of clinical guideline use in the Emergency Department,[1] which highlighted a demand for a number of clinical guidelines from UK Emergency Department (ED) clinicians.

Introduction

Recourse to the evidence base is a common event in modern medicine.[2] The increase in clinical guidelines based on best available evidence has led to a number of initiatives, working groups and guideline developments. Additionally, many local NHS bodies produce guidelines.[3] The main aims of a clinical guideline are as follows:

- To provide an evidence-based consensus on the optimal way to deliver emergency care
- To set quality standards for audit and safety
- To identify gaps in the evidence base that require further research

In 2010 a national survey of clinical guideline use in the ED was undertaken as part of an undergraduate research project, and highlighted a demand for a number of clinical guidelines from UK ED clinicians.[1] The results of this survey have been collated and reviewed in the table below, indicating where relevant guidelines currently exist and adding recommendations for further action. It is evident that demand for clinical guidance may represent training needs and/or a lack of awareness of available guidelines, rather than the absence of guidance on a particular topic. In addition, the 'need' for a guideline may be better served by alternatives to a guideline, and this is considered in many of the recommendations.

Lastly, in is important to consider the expectations that doctors have of guidelines,[4] and the limitations that guidelines may have in the clinical setting.[5, 6]

Summary of recommendations

Subject	Rank/ Number of requests in survey	Current guidance	Recommendation
Sedation (adult and paediatric)	**1/82**	**Ketamine Sedation of Children in Emergency Departments, CEM best practice statement, 2009** www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/Clinical Guidelines **American College of Emergency Physicians, 2005,** available CEM website (external guidelines page) www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/External Guidelines **AoMRC Safe sedation report** www.rcoa.ac.uk/docs/safesedationpractice.pdf **Many local policies**	**Include link to AoMRC Safe Sedation on external guidelines page** **Await joint adult sedation guidelines currently being prepared by CEM and RCoA**
Atrial fibrillation	**2/45**	**NICE CG36, June 2006** guidance.nice.org.uk/CG36	**No action**
Syncope/ transient loss of consciousness	**3/34**	**NICE CG109, August 2010, ESC 2009, ACEP 2007** available CEM website (external guidelines page) www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/External Guidelines	**No action**
Sepsis	**4/33**	**Surviving Sepsis Campaign** (Survive Sepsis, 2009) www.survivesepsis.org/content.php?name=index.php See CEM website for additional sepsis resources www.collemergencymed.ac.uk/Shop-Floor/Clinical Standards/Sepsis	**No action**
Chest pain	**5/30**	**NICE CG95, March 2010** guidance.nice.org.uk/CG95	**See below ***
Abdominal pain (including child-bearing age women)	**6/26-30**	**No widely accepted guideline**	**See below ****
Renal colic	**7/25-27**	**Standards published by CEM** www.collemergencymed.ac.uk/Shop-Floor/Clinical Standards The main areas of controversy relate to imaging modality, tamsulosin use, and analgesia delivery (see CEM audits)	**A revision of CEM standards addressing areas of controversy should be considered**
Diabetic Ketoacidosis	**8/23**	**BSPED guideline for paediatric patients** www.bsped.org.uk/professional/guidelines/docs/DKAGuideline.pdf For adult patients, many local guidelines exist	**Include links on external guideline web page, and local example on webpage**
Analgesia	**9/15-24**	**CEM Best Practice guidelines** www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/Clinical Guidelines	**No action**
Headache	**10/21**	**GEMNet guideline: Lone acute severe headache, Dec 2009** www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/Clinical Guidelines	**No action**

Spinal Injury	**11/20**	**CEM Best Practice guideline** www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/Clinical Guidelines Also elements of **NICE CG56** guidance.nice.org.uk/CG56 Also ASIA "**Guidelines for the Management of Acute Cervical Spine and Spinal Cord Injuries**", (Neurosurgery 50(Suppl 3):S1-S199, 2002)	**Ensure link is live, include ASIA guideline on external guideline webpage**
Back pain, non-traumatic	**12/19**	**NICE CG88, May 2009** guidance.nice.org.uk/CG88	**No action**
Venous thrombo-embolism	**13/9-21**	**British Thoracic Society 2003** www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/External Guidelines	**Await GEMNET guideline on patients discharged from the ED**
RSI/ventilation	**14/8-19**	Example of **local guideline** already on CEM website; www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/Local Guidelines forms part of **ACCS curriculum** (also on CEM website) www.collemergencymed.ac.uk/Training-Exams/Curriculum/Curriculum from August 2010	**Await joint adult sedation guidelines currently being prepared by CEM and RCoA**
Acute coronary syndromes	**15/17**	**NICE CG94, March 2010** guidance.nice.org.uk/CG94	**No action**
Eye emergencies	**16/12**	This is part of the **CEM curriculum** www.collemergencymed.ac.uk/Training-Exams/Curriculum/Curriculum from August 2010 This is a large topic, which may be better served by educational modules (e.g. eCPD on www.ENLIGHTENme.org), rather than a generic guideline	**See below*** **
Vaginal Bleeding	**16/12**	This is part of the **CEM curriculum** www.collemergencymed.ac.uk/Training-Exams/Curriculum/Curriculum from August 2010 This is a large topic, which may be better served by educational modules (e.g. eCPD on www.ENLIGHTENme.org), rather than a generic guideline	**See below*** **
Dental Emergencies	**16/12**	This is part of the **CEM curriculum** www.collemergencymed.ac.uk/Training-Exams/Curriculum/Curriculum from August 2010 This is a large topic, which may be better served by educational modules (e.g. eCPD on www.ENLIGHTENme.org), rather than a generic guideline	**See below*** **
Head injury	**19/11**	**NICE CG56, September 2007** guidance.nice.org.uk/CG56	**No action**
Stroke	**19/11**	**NICE CG68, July 2008** guidance.nice.org.uk/CG68	**No action**

***Chest Pain**

NICE CG95, while dealing with chest pain of recent onset, could be criticised with respect to ED use as not having an Emergency Department focus, and also for principally being a guideline designed to 'rule-in' ischaemic heart disease (IHD). Often within the ED the focus is

on 'ruling-out' IHD along with a number of other emergent conditions,[7] and CG95 does not have this focus. However, short guidelines supplementing CG95 could be controversial,[7] not exhaustive and therefore possibly of limited benefit. There is however, an increasing body of literature concerning the management of chest pain in the ED given the medico-legal impact of misdiagnosis,[8] in particular regarding early discharge and observation strategies.[9,10]

****Abdominal Pain**

Many of the issues listed above equally relate to abdominal pain: this may be better served by educational modules (e.g. eCPD on ENLIGHTENme), or generic guidance because this is a common presentation within Emergency Departments, and covers a range of presentations and diagnoses (including 'undifferentiated/non-specific' abdominal pain).[11] The preparation of a specific CEM guideline could possibly prove inappropriate and certainly challenging, in that it might not be exhaustive and therefore of limited benefit.

*****Eye emergencies, PV bleeding and dental emergencies**

These form part of the EM curriculum (see CEM website). These are areas which may be better served by educational modules (e.g. eCPD on EnLIGHTENme) or generic guidance because they are common problems within Emergency Departments, and cover a range of presentations and diagnoses.

REFERENCES:

1. Johnson NJ. The use of clinical care guidelines by doctors in the emergency department. Unpublished dissertation for Intercalated BMedSci, ScHARR, 2010
2. Osheroff JA, Forsythe DE, Buchanan BG, et al. Physicians information needs: analysis of questions posed during clinical teaching. Ann Intern Med 1991; 114: 576-81.
3. The College of Emergency Medicine website, Local Guidelines section. Accessed November 2010. http://www.collemergencymed.ac.uk/Shop-Floor/Clinical Guidelines/Local Guidelines
4. Sckett DI, Struss SE. Finding and applying evidence during clinical rounds: "the evidence cart". JAMA 1998; 280: 1336-8
5. Antman EM, Lau J, Kulpelnick B, et al. A comparison of results of meta-analysis of randomised control trials and recommendations of clinical experts. JAMA 1992; 286: 240-8
6. Oxman A, Guytt GH. The science of reviewing research. Ann NY Acad Sci 1993; 703: 125-34
7. Steurer J, HeldU, Schmid D, et al. Clinical value of diagnostic instruments for ruling out acute coronary syndrome in patients with chest pain: systematic review. Emerg Med J 2010; 27: 896-902
8. Hlatky, MA. Evaluation of chest pain in the Emergency Department. N Eng J Med 1997; 337: 1687-1689
9. Hess EP, Thiruganasambandamoorthy V, Wells GA, et al. Diagnostic accuracy of clinical prediction rules to exclude acute coronary syndrome in the emergency department: a systematic review. CJEM 2008; 10: 373-82
10. Ramakrishna G, Milavertz JJ, Zinsmeister AR, et al. Effect of exercise treadmill testing and stress imaging on the triage of patients with chest pain: CHEER substudy. Mayo Clin Proc 2005; 80: 322-9
11. Powers RD, Guertler AT. Abdominal pain in the ED: stability and change over 20 years. Am J Emerg Med 1995; 13: 301-3
12. Smith S. 'The Limitations of Evidence Based Medicine.' (letter) Crit Care Med 2003; 31(10): 2566-7

Contributing Authors

Compiled by Simon Smith FRCP, FCEM. Consultant in Emergency Medicine, John Radcliffe Hospital, Oxford. Based on original work by Nicola Johnson and Prof Suzanne Mason, School of Health and Related Research, University of Sheffield. Reviewed by Dr Adrian Boyle and Prof J Benger, Consultants in Emergency Medicine, on behalf of the CEM CEC.

Review

2013 or sooner if important information becomes available.

Disclaimers

The College recognises that patients, their situations, Emergency Departments and staff all vary. This guideline cannot cover all possible scenarios. The ultimate responsibility for the interpretation and application of this guideline, the use of current information and a patient's overall care and wellbeing resides with the treating clinician.

Research Recommendations

There are ample opportunities for quantitative and qualitative research into the current use of EBM guidelines, the impact of guideline use and the benefits of EBM in terms of patient outcomes and clinician satisfaction.[12] Also there is scope for historical research into guideline use.

Audit standards

There should be a documentation and audit system in place within a system of clinical governance. Audit standards should relate to compliance with guidelines, and availability, approval and dissemination of guidelines within a department.

Key words for search

Guideline(s), Emergency Medicine, Emergency Department(s).