



LUMISOFT

INFORMATION AT HAND

Mobile Prescription Software integrated into Mobile EBM Guidelines



Presented by Sampo Suvisaari
10 December 2002

What is EBM Guidelines?



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- **easy-to-use clinical guidelines**
- **over 900 treatment recommendations**

A screenshot of a web browser displaying the website for EBM Guidelines. The address bar shows the URL http://www.ebm-guidelines.com/what.html. The navigation menu includes Home, About EBMG, Try EBMG, Subscribe, Mobile EBMG, and Contact Us. The main content area is titled 'What is EBM Guidelines?' and contains a list of bullet points describing the service. A sidebar on the left lists various site sections like 'What is EBMG', 'The Editorial Team', 'Scientific Evidence', 'MeSH Browser', 'Sample Article', and 'Images'.

Address http://www.ebm-guidelines.com/what.html

Home ▶ About EBMG Try EBMG Subscribe Mobile EBMG Contact Us

What is EBM Guidelines?

- ▶ The most comprehensive collection of primary care guidelines
- ▶ Quick and easy to use - a search by key words takes less than a minute
- ▶ Detailed recommendations on diagnostic tests and procedures
- ▶ The guidelines are well-structured and specific to the screen
- ▶ Developed by experienced general practitioners
- ▶ 13 years of experience in clinical use
- ▶ Links to brief evidence summaries based on the guidelines
- ▶ All relevant systematic reviews are included in the evidence summaries, and more
- ▶ The latest update (2005)

▶ What is EBMG

▶ The Editorial Team

▶ Scientific Evidence

▶ MeSH Browser

▶ Sample Article

▶ Images

About EBM Guidelines



- **Introduced in 1991**
- **Presently used by 40 000 users in 40 countries**
- **Used in all public hospitals and 90% of health care centres in Finland**
- **Multiplatform: internet, CD-ROM, book and PDAs.**

Mobile EBM Guidelines



- **Presently available on Nokia Communicator, Palm OS and Pocket PC**
- **All data stored locally on 64 MB memory card (no wireless connection needed)**
- **A search takes less than 2 seconds**
Speed is the key for an enjoyable user experience!

Mobile EBM Guidelines



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- Includes over 900 articles, 1500 evidence summaries, 200 tables, 200 pictures, 20000 keywords...



Three modules



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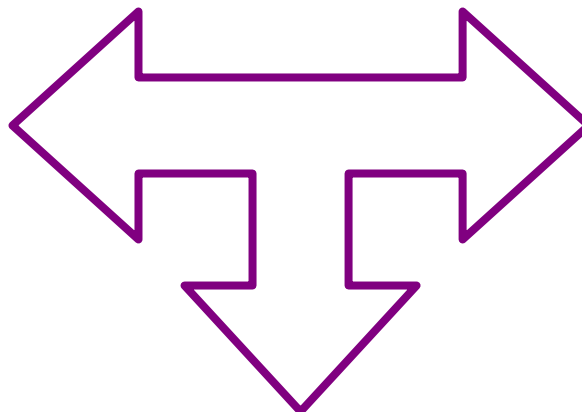
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EBM Guidelines Evidence-Based Medicine



Clinical guidelines
for primary care

+ searchable
ICD-10 diagnostic
codes (WHO)



Pharmaceutical database
(ie. drug database)

Mobile Prescription Module

EBM Guidelines on Palm OS

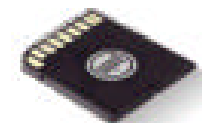


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**No installation
required, just
insert memory card**



palm

m505

Enter keyword:

asthma Del

1 2 3 4 5 6 7 8 9 0
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M -
Space

About

Find



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Select keyword:

- ASTHMA ATTACK (1)
- ASTHMA PATIENT (1)
- ASTHMA, BRONCHIAL (37)
- ASTHMA: SYMPTOMS AND DIAGN... (1)
- ASTHMA (37)
- ASTHMATIC CRISIS (2)
- ASTHMATIC SHOCK (2)
- ASTIGMATISM (2)
- ASTRAGALUS (1)
- ASTROBLASTOMA (8)
- ASTROCYTIC GLIOMA (1)

Back

Up

Down



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Select article:

Treatment of acute exacerbation o ...

Systemic disease ...

Treatment of acute exacer ...

Immediate treatment

1. Put the patient in a comfortable sitting position, legs down if possible, so that he or she can bend down, if needed, and have support for the hands and legs.
2. Give oxygen (usually 35% is enough; in resuscitation maximal concentration and flow).
3. Give a high dose of an inhaled

Back

Back

Prev

Up

Down

Ingrowing toenail: avulsion ...

Techniques

Treatment of paronychia

Bibliography

— See picture (LINK).

Basic rule

— If bathing the toe and using

Back

Up

Image info

Toe, the most typical site of this painful condition. Several treatment modalities are offered for consideration. Simple phenolization is the first choice. Wedge excision is more traumatic. Cryosurgery combined with curettage and extra granulating tissue is another option.

Back

Show



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EBM Guidelines on Pocket PC

Found 37 documents in following categories:

- [ASTHMA PATIENT \(1\)](#)
- [ASTHMATIC SHOCK \(2\)](#)
- [ASTHMATIC CRISIS \(2\)](#)
- [ASTHMA ATTACK \(1\)](#)
- [ASTHMA: SYMPTOMS AND DIAGNOSIS \(1\)](#)
- [ASTHMA, BRONCHIAL \(37\)](#)
- [ASTHMA \(37\)](#)



ASTHMATIC CRISIS

- [Treatment of acute exacerbation of asthma](#)
- [Systemic diseases in pregnancy](#)

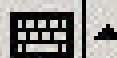


Signs that indicate that the attack may be fatal

- Silent respiration sounds
- Cyanosis
- Bradycardia or hypotension
- Exhaustion, confusion or unconsciousness
- Arterial blood $pO_2 < 8$ kPa even after oxygen therapy, and $pCO_2 > 6$ kPa.

Immediate treatment

1. Put the patient in a **comfortable sitting position**, legs down if possible, so that he or she can bend down, if needed, and have support for the



**Example of article
“Treatment of
acute exacerbation
of asthma”**

EBMG on Nokia Communicator



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Mobile EBM Guidelines

Type keyword to search for:

ASTHMA

Ver: SW07B-020514 Copyright (C) Duodecim Medical Publications Ltd.

OK

New search

PF

Quit

pulmonary function tests
Asthma: symptoms and diagnosis
• Long-term management of asthma
Treatment of acute exacerbation of asthma
Occupational asthma
Sleep apnoea and asthma
Investigation of asthma
Allergen-specific immunotherapy
Systemic disease and asthma
Wheezing in children
Treatment of asthma
Dosage of salbutamol

OK

Inhaled short-acting sympathomimetic if needed (salbutamol, terbutalin or fenoterol) 2.
If inhaled sympathomimetics are needed several times a week or if sleep is disturbed by asthma, regular anti-inflammatory medication is indicated.

OK

New search

Back

Inhaled corticosteroid (beclometasone, budesonide <A>, or fluticasone <A>) 100-400 microg twice daily.

Holding chambers versus nebulisers for inhaled steroids in chronic asthma

OK

Regular vs. as needed inhaled short acting beta2-agonist use in asthma

New search

Back

Level of evidence B

There is no clinical advantage of using beta2 agonists regularly. A Cochrane review <1> (abstract <1>, review <2>) included 31 studies. There was little difference between the treatments of nearly all outcomes. In cross-over studies, evening peak flow was

Quit

Mobile Prescription Module



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Potilaan nimi:	<input type="text" value="Testi, Teppo"/>	<input checked="" type="checkbox"/> Sairauden hoito
Syntymäaika:	<input type="text" value="010203-456X"/>	<input type="checkbox"/> Muu
Rec.	Tabl. Relapam 15 mg	
Lääke, vahvuus, määrä tai hoidon kestoaika, annostus ja käyttötarkoitus	D. No:0 123 iter bis 2 kuukautta S. 1 tabletti tarvittaessa ahdistukseen korkeintaan kolmesti päivässä	
SV-numero:	<input type="text" value="123456"/>	
Apteekki:	<input type="text" value="Mannerheimintie 5"/>	

Lähetä

Muuta

PF

Sulje

NOKIA

Desk

Tel

Messaging

Internet

Contacts

Calendar

Office

Extras

Mobile Prescription Goals



- **Convenience and/or time saving**
- **Possibility to check interactions, capsule sizes, costs, etc.**
- **Log keeping**
- **Integration to electronic health records**

Mobile Prescription Team



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- **Five doctors and two software companies Lumisoft Ltd. (UK) and Aspicode Oy (Finland)**
- **Supported and partly financed by TEKES, the National Technology Agency of Finland**
- **Duodecim Medical Publications Ltd.**
www.duodecim.fi/english
www.ebm-guidelines.com