BMJ Best Practice

Your instant second opinion

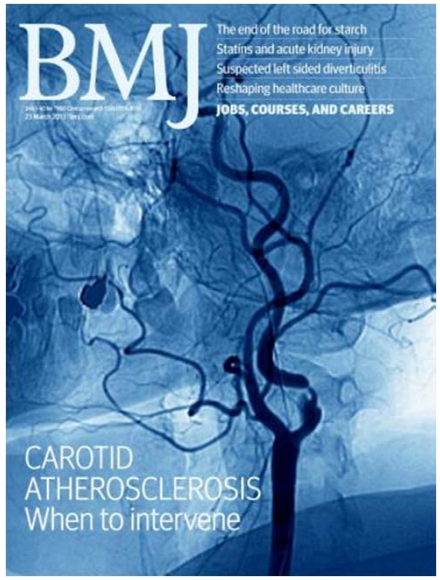
BMJ最佳临床实践

- 循证医学临床决策支持工具

http://bestpractice.bmj.com

BMJ简介

- 成立于 1840 年，有 170 多年的历史
- 直属于英国医学会
- 以其旗舰期刊《英国医学杂志》缩写命名
- 致力于促进世界医学发展和患者健康改善
- 影响全球160多个国家和地区的读者和用户
- 总部设于伦敦，在美国、印度、巴西、中国有分部



BMJ

医生

life long learning

BMJ

•需求：实时、快速获得最新临床新知识；快速解决遇到的临床诊疗问题

•途径：

教科书、纸本期刊

电子资源-Pubmed……

互联网-丁香园、google、baidu……

请教上级医生或老师

•困难：

书本知识迅速过时

纸本期刊查询不便

电子资源文献浩如烟海

时间有限

经验有时具有局限性

搜索工具/文献数据库的效率

15个城市，121家三甲医院，7321份问卷

工具	应用比例	解决时长
Google	49%	31分钟
百度	47%	27分钟
丁香园	46%	??
清华同方	33%	33分钟
万方数据	31%	37分钟
Pubmed	21%	46分钟

2008-2009，邓白氏调查

2581名中国临床医生调查：

项目	时间比例	全文效力（5分制）	结论
诊疗	79.2%	1.72分	无效
继续教育	11.1%	2.88分	有限
科研	8.6%	4.69分	推荐
其他	1.1%	不详	不详

有**73.7%**的医生，即使完全读懂全文内容（中文/英文），仍对其临床诊疗无任何帮助(5分制选0分和1分）

-2009-2010，邓白氏调查机构

frontiers in
IMMUNOLOGY

Arginase 1 mediates increased bloc contributes to vascular endothelial deoxycorticosterone acetate-salt hy

Haroldo A. Toque[1]*, Kenia P. Nunes[2], Modesto Rojas[3], Anil Bhat Maritza J. Romero[1,3], R. Clinton Webb[1,2], Ruth B. Caldwell[3] and

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Enhanced arginase (ARG) activity has b production and impairs endothelial fun tion model, we investigated involveme and ARG2) in hypertension and endoth model. Hypertension was induced in and complete ARG2$^{-/-}$ KO mice by u (DOCA)-salt treatment for 6-weeks. (C After 2 weeks of DOCA-salt treatment, ~15 mmHg in all mouse genotypes. SB mice to ~130 mmHg at 5–6 weeks, wh levels by 6 weeks (109 ± 4 vs. 101 ± 3 mice increased vascular ARG activity (a and protein levels of ARG1 (aorta: 1.49-f protein increased in WT-DOCA MA (by WT Sham tissues. Maximum endotheli significantly reduced in DOCA-salt WT ARG1$^{+/-}$ and ARG2$^{-/-}$ mice vs. their responses to phenylephrine in aorta o aorta or MA from WT-DOCA mice with a mediated vasorelaxation. DOCA-salt-inc 2.1-fold) in WT was prevented in ARG1$^{+/}$ is involved in murine DOCA-salt-induced and may represent a novel target for an

Keywords: arginase, endothelial dysfunction, DOC

2013 ACCF/AHA Guideline for the Management of Heart Failure

A Report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines

Developed in Collaboration With the Heart Rhythm Society

Endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation

WRITING COMMITTEE MEMBERS*
TnQTable1
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Alice K. Jacobs, MD, FACC, FAHA, *Immediate Past Chair‡‡*
Jonathan L. Halperin, MD, FACC, FAHA, *Chair-Elect*

TnQTable2*Writing committee members are required to recuse themselves from voting on sections to which their specific relationships with industry and other entities may apply; see Appendix 1 for recusal information.
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‡ACCF/AHA Task Force on Practice Guidelines liaison.
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††Heart Rhythm Society representative.
‡‡Former Task Force member during this writing effort.

This document was approved by the American College of Cardiology Foundation Board of Trustees and the American Heart Association Science Advisory and Coordinating Committee in May 2013.

The American College of Cardiology Foundation requests that this document be cited as follows: Yancy CW, Jessup M, Bozkurt B, Butler J, Casey DE Jr, Drazner MH, Fonarow GC, Geraci SA, Horwich T, Januzzi JL, Johnson MR, Kasper EK, Levy WC, Masoudi FA, McBride PE, McMurray JJV, Mitchell JE, Peterson PN, Riegel B, Sam F, Stevenson LW, Tang WHW, Tsai EJ, Wilkoff BL. 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. J Am Coll Cardiol 2013 June 5 [E-pub ahead of print].

This article is copublished in *Circulation*.

Author's bias

Non-publication of large randomized clinical trials: cross sectional analysis

--BMJ 2013; 347

Results

Of 585 registered trials, 171 (29%) remained unpublished. These 171 unpublished trials had an estimated total enrollment of 299 763 study participants. The median time between study completion and the final literature search was 60 months for unpublished trials. Non-publication was more common among trials that received industry funding (150/468, 32%) than those that did not (21/117, 18%), P=0.003. Of the 171 unpublished trials, 133 (78%) had no results available in ClinicalTrials.gov.

美国Massey 大学的Mark Stevenson教授告诫我们：

- 全世界每天发表46篇RCT文献，每天进入Medline的医学文献就有2000篇，每天产生的生物医学文献高达8000篇；
- 发表的文献中并非都有用，只有不到1%的文献是缜密的临床相关性强的。发表在各种医学杂志上的大多数文献或者过于粗制滥造，或者与临床应用毫不相关；
- 互联网给了我们太多的需要不断更新的信息。但除此以外，高质量的信息却往往不易找到。

- -[resourse: Mark Stevenson. Critical appraisal of the literature. Epi Centre, IVABS, Massey University, Palmerston North M.Stevenson@massey.ac.nzepicentre.massey.ac.nz/Portals/0/.../227.../Stevenson_critical_appraisal.pdf]

What doctors want

Dr. Malcolm Daniel Consultant in Anaesthesia and Intensive Care at Glasgow Royal Infirmary (GR

- 无需通读全文/not to have to wade through papers
- 无需亲自检索 Medline 数据库, 让我信任的人去检索/not to have to search through Medline- get & trust someone else to do that for me
- 获得具有证据级别的引文/to have an index of the strength of evidence
- 得到简短的问题答案/to have a one word (or brief) answer
- 找到已有答案的问题/to see questions that already have answers
- 50秒就得到所需的医学知识/50 seconds to medical knowledge

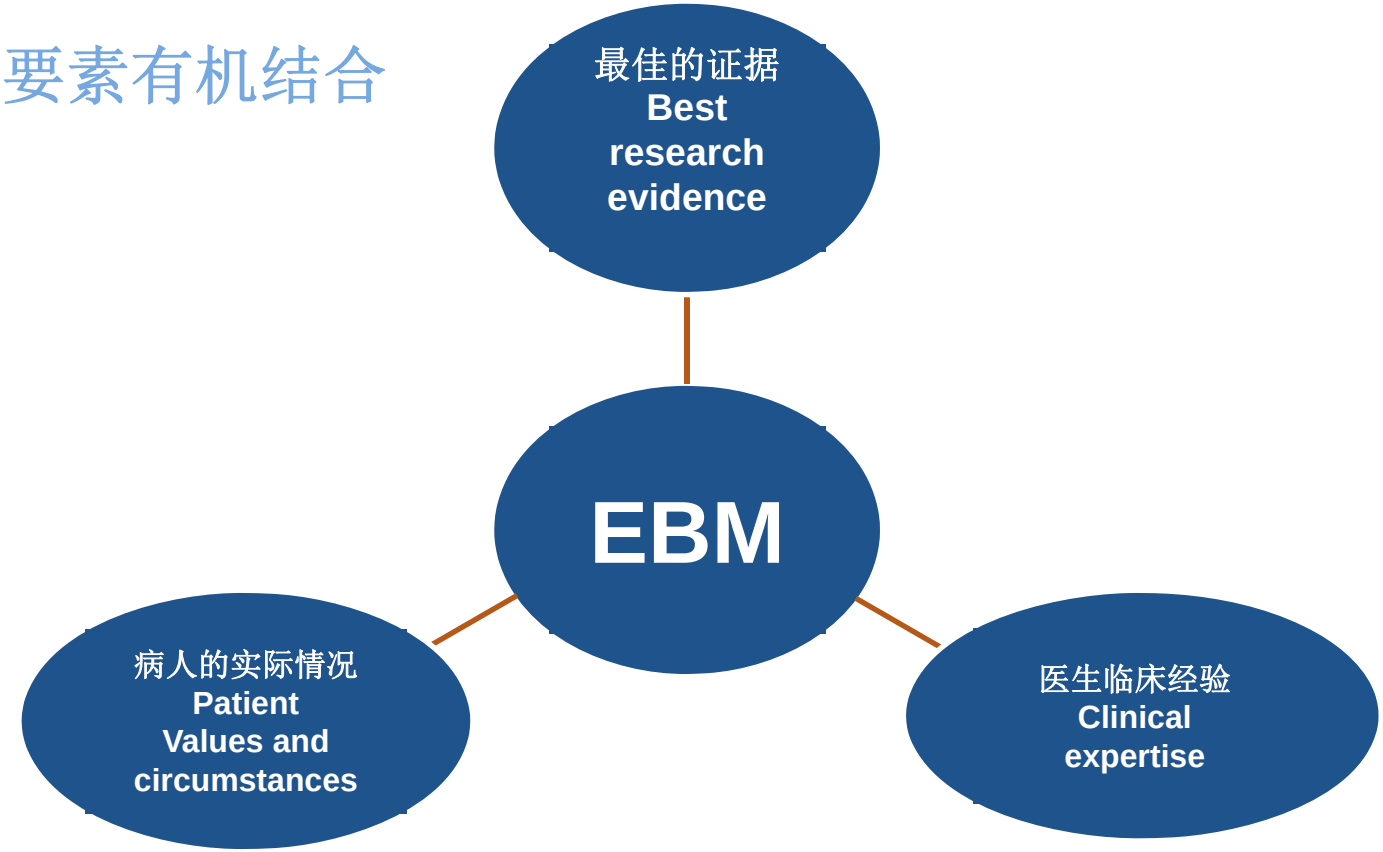
什么是循证医学

“循证医学是慎重、准确和明智地应用当前最佳的研究证据来确定患者的治疗措施。

--Prof. Sackett DL ， 1996年发表于BMJ

“Evidence based medicine is the “conscientious, explicit and judicious use of current best evidence in making decisions about individual patients”.

EBM三要素有机结合


最佳的证据
Best
research
evidence
EBM
病人的实际情况
Patient
Values and
circumstances
医生临床经验
Clinical
expertise

BMJ与循证医学发展

2009， BMJ推出 BMJ Best Practice

1999， BMJ推出 BMJ Clinical Evidence

1996， David Sackett在BMJ上发表EBM定义

1994， David Sackett主办由BMJ和美国内科医师学会联合出版的EBM及Clinical Evidence

1992， 加拿大麦克玛斯特大学的David Sackett及同事提出EBM概念

1992，英国牛津成立了英国Cochrane中心

1987， Archie Cochrane根据产科RCT结果，进行系统评价研究,揭示了循证医学的实质

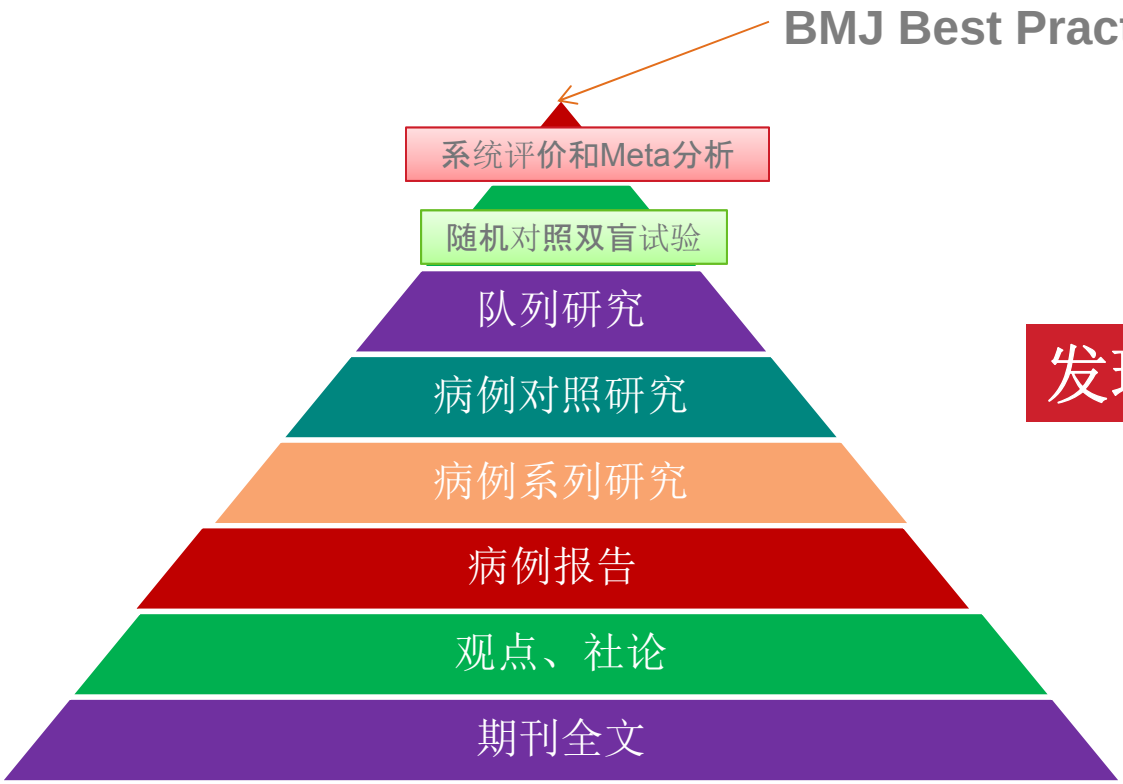
BMJ Best Practice

- 循证医学临床决策支持工具，是医生可靠的“Second Opinion”

- 将最新的研究成果，指南，专家意见整合成在一起，通过快速、简单的途径为临床诊疗决策提供及时可靠的信息。

- 目标人群：医学生、住院医生、全科医师、专科医师（学习非本专业内容）

BMJ Best Practice



发现证据的力量

Grading of Recommendations Assessment, Development and Evaluation (GRADE)

Code	Quality of Evidence	Definition
A	High	Further research is very unlikely to change our confidence in the estimate of effect. ► Several high-quality studies with consistent results ► In special cases: one large, high-quality multi-centre trial
B	Moderate	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate. ► One high-quality study ► Several studies with some limitations
C	Low	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate. ► One or more studies with severe limitations
D	Very Low	Any estimate of effect is very uncertain. ► Expert opinion ► No direct research evidence ► One or more studies with very severe limitations

Best Practice涵盖内容

BMJ Best Practice特点

权威

- 全新的临床诊疗（辅助）系统
- 全球知名临床专家执笔撰写
- 提供国际权威指南和定制国内标准和指南

高效

- 直达所需内容，免去查找过程
- 与药物数据库系统Martindale实时对接
- 每月更新，每年重审

实用

- 涵盖超过10000种诊断方法，3000项诊断性检测和4000多篇诊断和治疗指南
- 包括基础，预防，诊断，治疗和随访等各个关键环节的内容
- 整合了BMJ *Clinical Evidence*

Best Practice主要提供两种标准结构界面

- 疾病诊治标准界面 (Condition Monographs)

“疾病”入手

Best Practice主要提供两种标准结构界面

- 症状分析 (Assessment Monographs)

“症状”入手

Best Practice实例演示—从疾病入手

临床问题:

- A 56 year old man with diabetes is currently taking lisinopril to control his essential hypertension. Today at follow-up, his blood pressure is 150/95, not at goal. How should his therapy be modified?

56岁男性糖尿病患者，服用赖诺普利控制原发性高血压。今天血压测试结果为**150/95**，如何调整其治疗？

传统模式

- 血压未达标
- 更换药物或增加药物
- 观察
- 血压未达标
- 更换药物或增加药物
- ……

循证模式

- 确认临床问题
  - Patient group:
    - 合并有糖尿病的高血压病人
  - intervention:
    - 现有最佳治疗方案
  - outcome
    - 改善病人预后(心功能、肾功能、中风）
- 寻找最佳证据
- 治疗方案、随访

http://bestpractice.bmj.com

Best Practice实例演示

3.治疗具体方法: 确认患者群

伴有糖尿病或慢性肾病的患者：
高血压1级（BP140-159/90-99 mmHg)

血管紧张素转化酶抑制剂+改善生活方式

concomitant diabetes or chronic renal disease without cardiovascular disease: non-pregnant

- stage 1 HTN (BP 140 to 159/90 to 99 mmHg)

1st

ACE inhibitor/angiotensin-II receptor blocker monotherapy

→ Goal BP is less than 130/80 mmHg.

→ The lowest dose should be titrated upwards until a therapeutic effect is achieved or an adverse effect limits further titration.

Primary options

5.选择药物

benazepril: 10-40 mg orally once daily

OR

captopril: 12.5 to 25 mg orally two to three times daily initially, maximum 150 mg/day

OR

enalapril: 5-40 mg orally given once daily or in 2 divided doses

OR

fosinopril: 10-40 mg orally given once daily or in 2 divided doses, maximum 80 mg/day

OR

lisinopril: 10-40 mg orally once daily, maximum 80 mg/day

OR

moexipril: 7.5 to 30 mg orally once daily


MedicinesComplete
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Help
Martindale: The Complete Drug Reference
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ular Drugs > Drug Monographs
◄ Previous page
Next page ►
CONTENTS
Benazepril Hydrochloride
Sub-sections
Drug Nomenclature
Adverse Effects, Treatment, and Precautions
Interactions
Pharmacokinetics
Uses and Administration
Preparations
Drug Nomenclature
Date of monograph revision: 25-Feb-1997; 14-Jul-1998; 10-Jan-2000; 30-Oct-2001; 19-Jul-2002; 13-Jul-2006; 08-Sep-2008; (last modified: 31-Oct-2009)

Essential hypertension

最后更新于： Mar 06, 2014

病史&检查

实验室检查

治疗具体方法

History & exam

Key factors

- presence of risk factors
- BP >140/90 mmHg
- retinopathy

Other diagnostic factors

- headache
- visual changes
- dyspnoea
- chest pain
- sensory or motor deficit

History & exam details

Diagnostic tests

1st tests to order

- ECG
- fasting metabolic panel with estimated GFR
- fasting lipid panel
- Hb
- urinalysis

Tests to consider

- echocardiogram
- carotid Dopplers
- plasma renin activity (PRA)
- plasma aldosterone
- renal duplex ultrasound/MRA renal arteries
- 24-hour urine phaeochromocytoma screen
- 24-hour urine free cortisol
- TSH
- home and ambulatory BP monitor

Treatment details

Ongoing

no comorbidity (other than osteoporosis): non-pregnant

- **stage 1 HTN (BP 140 to 159/90 to 99 mmHg)**
  - diuretic monotherapy
  - lifestyle modification
  - ACE inhibitor/angiotensin-II receptor blocker monotherapy
  - lifestyle modification
  - beta-blocker monotherapy
  - lifestyle modification
  - dihydropyridine CCB monotherapy
  - lifestyle modification
- **stage 1 not at goal with monotherapy or stage 2 (BP ≥160/100 mmHg)**
  - thiazide + ACE inhibitor/angiotensin-II

Essential hypertension

最后更新于： Mar 06, 2014

流行病学

Epidemiology

Worldwide, it is estimated that 1 billion people are hypertensive, accounting for an estimated 7.1 million deaths per year. [12] It is becoming an increasingly common problem because of increased longevity and the prevalence of contributing factors such as obesity, physical inactivity, and unhealthy diet. [13] [14] The prevalence in many developing countries, particlularly urban societies, is already as high as those seen in developed countries. [15]

The prevalence of essential HTN in the US was estimated to be 65 million people in 2000, compared with 50 million people in 1990. [16] Based on National Health and Nutrition Examination Surveys (NHANES) data, prevalence is highest in black women, who also develop HTN at a younger age than other groups. [17] Prevalence is higher in white Americans than in Mexican Americans. [18] The incidence increases with age in people of all ancestries and both sexes. Prevalence is higher in men than in women before 60 years of age, but equal after this age. [5] The lifetime risk is 90% for men and women who were normotensive at 55 years of age and survive to 80 years. [19]

Essential hypertension

最后更新于： Mar 06, 2014

精粹	基础	预防	诊断	治疗	随访	文献资料
总结	定义	一级预防	病史与检查	具体方法	推荐	参考文献
概览	流行病学	筛检	实验室检查	治疗步骤	并发症	网站资源
	病原学	二级预防	鉴别诊断	新疗法	预后	患者教育
	病理生理		诊断步骤	治疗指南		致谢
			诊断标准	证据		Related BMJ content
			诊断指南			
			病史			

二级预防

加入至BMJ Portfolio 添加为书签 Notes Tools

Secondary prevention

Aggressive lifestyle modifications should be initiated in patients with pre-HTN (BP 120 to 139/80 to 89 mmHg) to delay or prevent the onset of overt HTN. Furthermore, other cardiovascular risk parameters should be aggressively managed. For example, LDL-cholesterol should be maintained at less than 100 mg/dL (2.59 mmol/L) in people with type 2 diabetes. Accordingly, patients with pre-HTN should be evaluated for occult cardiovascular risk by screening for diabetes or dyslipidaemia with fasting blood sugar and lipid levels.

Essential hypertension

最后更新于： Mar 06, 2014

精粹
- 总结
- 概览

基础
- 定义
- 流行病学
- 病原学
- 病理生理

预防
- 一级预防
- 筛检
- 二级预防

诊断
- 病史与检查
- 实验室检查
- **鉴别诊断**
- 诊断步骤
- 诊断标准
- 诊断指南
- 病史

治疗
- 具体方法
- 治疗步骤
- 新疗法
- 治疗指南
- 证据

随访
- 推荐
- 并发症
- 预后

文献资料
- 参考文献
- 网站资源
- 患者教育
- 致谢
- Related BMJ content

加入至BMJ Portfolio | 添加为书签 | Notes | Tools

鉴别诊断

Differential diagnosis

Condition	Differentiating signs/symptoms	Differentiating tests
Drug-induced	▪ There may be signs of acute intoxication, withdrawal, or cravings with cocaine/sympathomimetics use. ▪ History of treatment with or ingestion of non-steroidal anti-inflammatory drugs, OCPs, sympathomimetics, herbal medications (e.g., black cohosh, capsicum, ma huang), or liquorice.	▪ Drug toxicology screen may detect an illicit substance. ▪ Hypokalaemia if excessive liquorice.
Chronic renal failure	▪ There may be pruritus, halitosis, oedema, or change in urine output.	▪ High serum creatinine. ▪ Chronic anaemia may be seen. ▪ Renal ultrasound may identify sclerotic or polycystic kidneys.

1.疾病名称 **2.鉴别症状** **3. 鉴别检验**

Treatment approach

The main goal of treatment is to decrease the risk of mortality and of cardiovascular and renal morbidity. [5] BP goal should be less than 140/90 mmHg. Regarding patients with concomitant diabetes mellitus, there is good-quality evidence that very intensive BP lowering (targeting a systolic pressure <120 mmHg, as compared with targeting <140 mmHg) does not lessen risk (composite outcome: non-fatal MI, non-fatal stroke, or death from cardiovascular cause) and may increase risk of adverse events. [11]

Older patients should be treated with antihypertensive therapy with a goal target BP of 140/90 mmHg, as is the goal in the general population. However, because of differences in the general health of very old patients, the decision to treat should be on an individual basis, and BP lowering should be gradual and carefully monitore

In the general population aged ≥60 years eline recommends pharmacological therapy to lower blood pressure when BP ≥150/90 mmHg. [4] H aining the JNC 7 systolic BP goal of <140 mmHg, concluding that there was insufficient evidence to im ips, including black people, those with cardiovascular disease, and those with multiple risk fact

Lifestyle modification

The initial approach to a newly diagnosec the risks associated with HTN and the need for adequate control and adherence to therapy. Initial odification including: [3] [12] [42]

- Sodium reduction (<2 g/day) Evidence B
- Dietary Approaches to Stop Hyperten daily, whole grains, low sodium, low-fat proteins)

Evidence score Close

Lowering of BP: there is medium-quality evidence that reduced dietary salt intake modestly reduces BP compared with usual diet in people with HTN.

Evidence level B
Randomized controlled trials (RCTs) of <200 participants, methodologically flawed RCTs of >200 participants, methodologically flawed systematic reviews (SRs) or good quality observational (cohort) studies.

More info from BMJ Clinical Evidence

证据质量分级


Essential hypertension
精粹
总结
概览
基础
定义
流行病学
病原学
病理生理
分类
预防
一级预防
筛检
二级预防
诊断
病史与检查
实验室检查
鉴别诊断
诊断步骤
诊断标准
诊断指南
病史
治疗
具体方法
治疗步骤
新疗法
治疗指南
证据
随访
推荐
并发症
预后
文献资料
参考文献
图像
网站资源
患者教育
致谢
添加为书签
Feedback
打印
电子邮件
Treatment guidelines
治疗指南
Europe show all
2007 Guidelines for the management of arterial hypertension [37]
Summary
Hypertension. Management in adults in primary care: pharmacological update.
Summary
North America show all
The seventh report of the Joint National Committee on the Prevention, Detection, Evaluation and Treatment of High Blood Pressure [1]
Summary
Institutional guidelines
定制本机构需要的指南
Guidelines added by your institution:
中国高血压指南
Summary: 卫生部心血管病防治研究中心提供的中国高血压防治指南

Essential hypertension

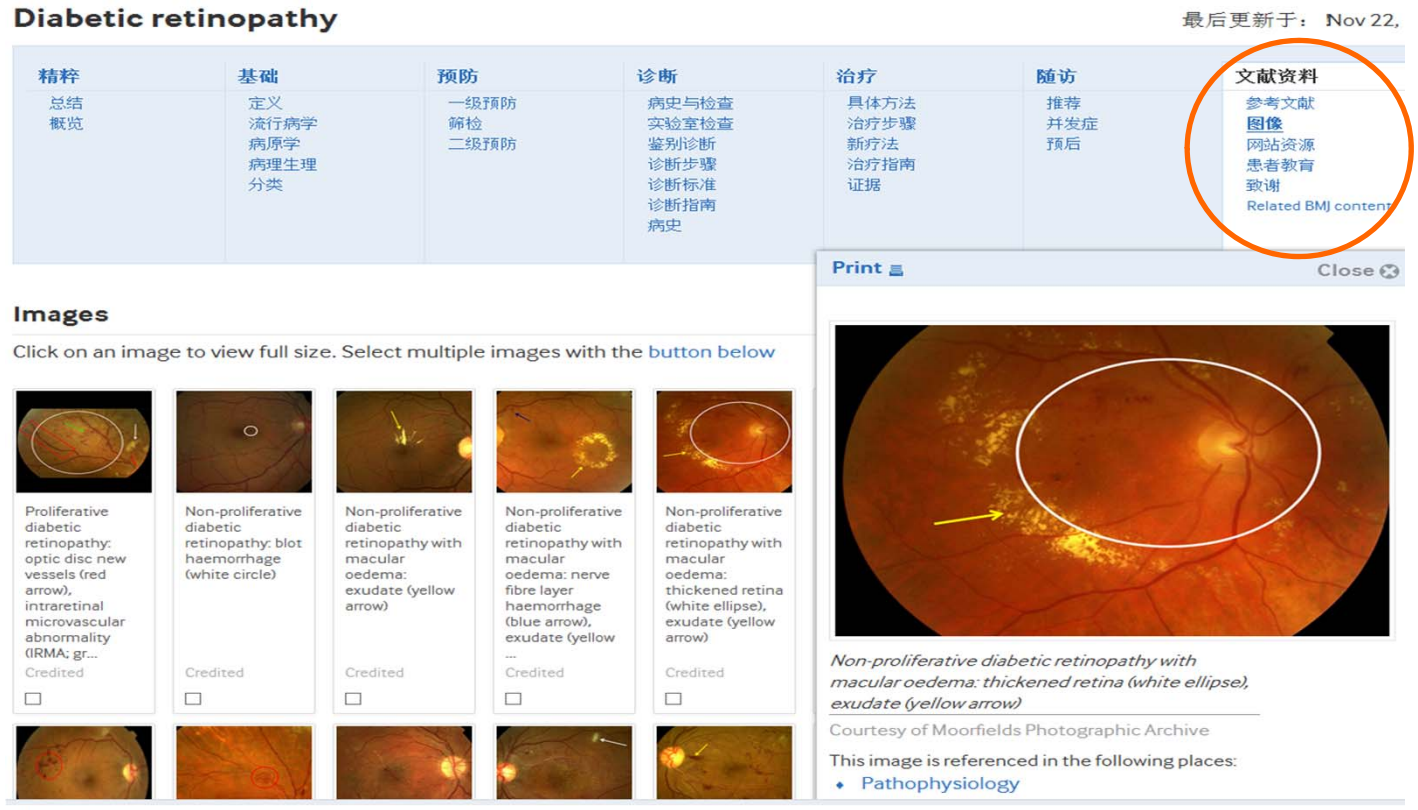
最后更新于： Mar 06, 2014

Complications

并发症

Complication show all	Timeframe	Likelihood
› coronary artery disease	long term	high
› cerebrovascular accident	long term	high
› left ventricular hypertrophy (LVH)	long term	high
› congestive heart failure	long term	medium
› retinopathy	long term	medium
› aortic dissection	long term	medium
› peripheral artery disease	long term	medium
› renal failure	long term	medium

Best Practice 提供大量彩色图像



Best Practice实例演示—从症状入手

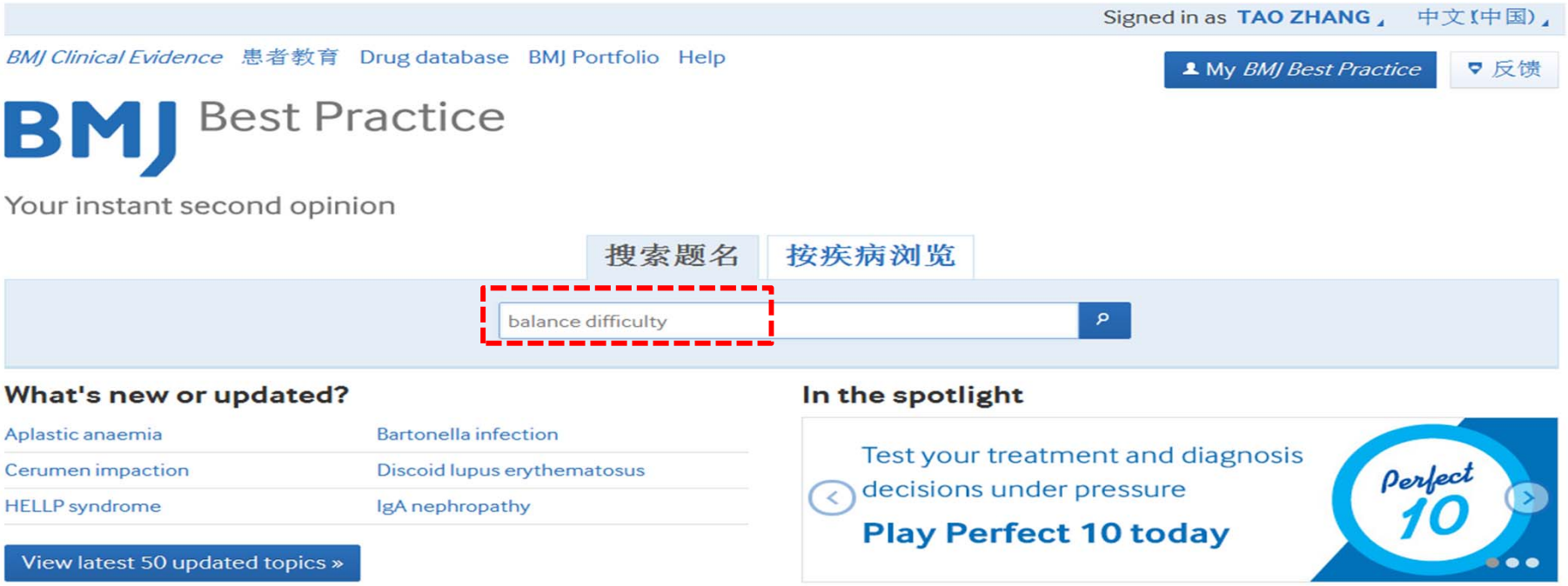
临床问题：

A **70-year-old man** is discovered by a family member to have **difficulty speaking** and **extreme balance difficulty**.

How should you proceed with **assessing** and **managing** this patient?

70岁老年人，被家人发现出现失语及极度平衡困难。你应该如何评估和管理这个病人？

症状查寻 - Symptom Searching



查寻结果 – Search Results

应急考虑

Assessment of balance disorders

最后更新于： Apr 26, 2013

概览 | 急诊 | 诊断 | 文献资料

总结 | 应急考虑 | 诊断步骤 | 参考文献

病原学 | | 鉴别诊断 | 患者教育

| | | 诊断指南 | 致谢

| | | | Related BMJ content

Notes Tools

3.根据“应急考虑”提示，优先排除高危险疾病

Urgent considerations

See Differential diagnosis for more details

Stroke

Cerebellar haemorrhage or infarction may lead to herniation and are neurosurgical emergencies. Acute brainstem strokes need to be evaluated for vertebrobasilar dissection or atherosclerosis. Thrombolytic therapy should be considered in cases of non-haemorrhagic brainstem or cerebellar infarction. When bulbar involvement occurs, measures should be taken to avoid aspiration and respiratory failure. Cerebellar or brainstem infarction may be misdiagnosed as vestibular neuritis in patients presenting with acute dizziness or balance difficulty and a high index of suspicion must be maintained not to miss these serious and potentially life-threatening neurological causes.

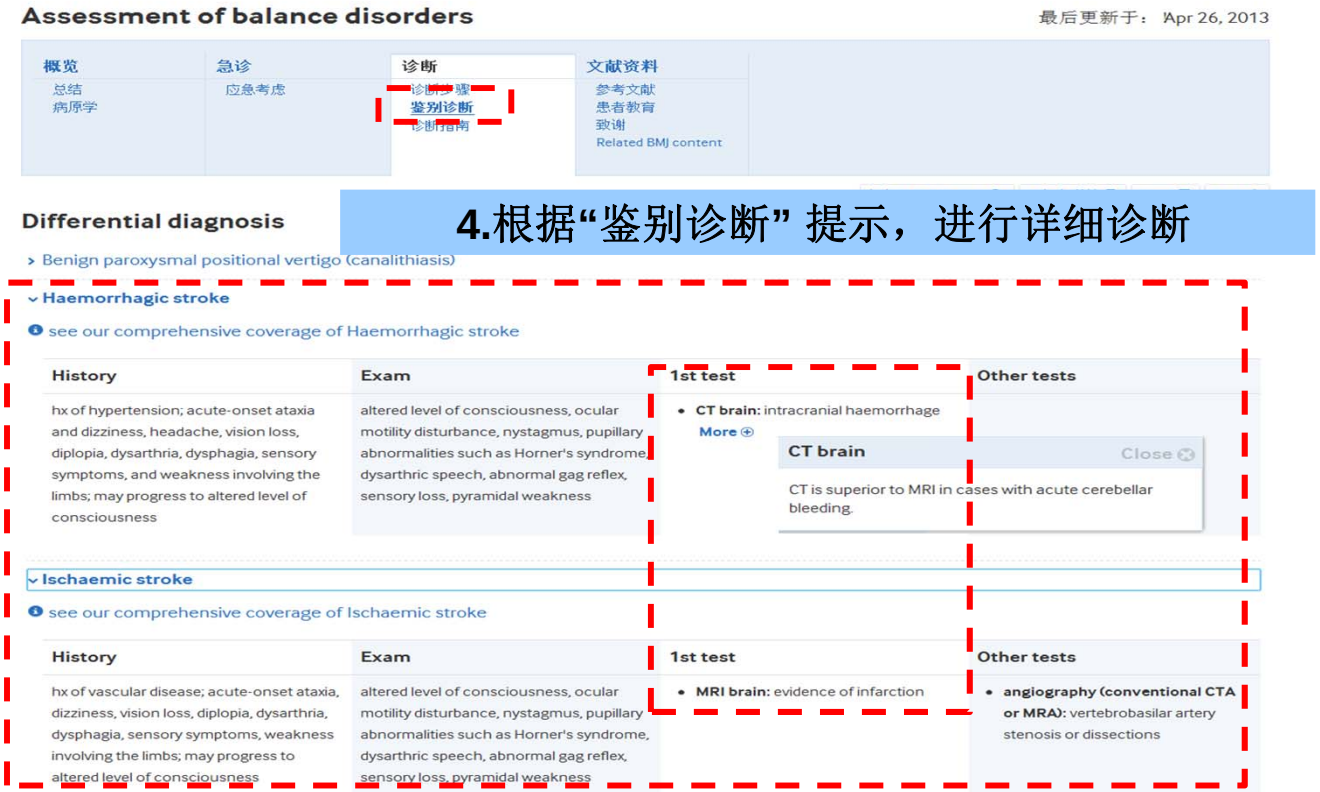
Wernicke's encephalopathy

Wernicke's encephalopathy needs to be considered when acute ataxia is associated with altered level of consciousness, ophthalmoplegia, and nystagmus. [10] Alcoholics, people with gastric disorders (e.g., chronic gastritis), and those experiencing recurring vomiting (e.g., hyperemesis gravidarum) are at risk of developing Wernicke's encephalopathy. Unless treated as an emergency with thiamine replacement parenterally, permanent neurological injury may occur.

Red flags

- Vestibular neuritis/labyrinthitis
- Thiamine deficiency
- Haemorrhagic stroke
- Ischaemic stroke
- Autoimmune inner ear disease
- Meningitis
- Wernicke's encephalopathy
- Spinal cord trauma
- Guillain-Barre syndrome (GBS), polyradiculopathy

鉴别诊断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Differential diagnosis
4.根据“鉴别诊断”提示，进行详细诊断
Benign paroxysmal positional vertigo (canalithiasis)
Haemorrhagic stroke
see our comprehensive coverage of Haemorrhagic stroke
History
Exam
1st test
Other tests
hx of hypertension; acute-onset ataxia and dizziness, headache, vision loss, diplopia, dysarthria, dysphagia, sensory symptoms, and weakness involving the limbs; may progress to altered level of consciousness
altered level of consciousness, ocular motility disturbance, nystagmus, pupillary abnormalities such as Horner's syndrome, dysarthric speech, abnormal gag reflex, sensory loss, pyramidal weakness
CT brain: intracranial haemorrhage
More
CT brain
Close
CT is superior to MRI in cases with acute cerebellar bleeding.
Ischaemic stroke
see our comprehensive coverage of Ischaemic stroke
History
Exam
1st test
Other tests
hx of vascular disease; acute-onset ataxia, dizziness, vision loss, diplopia, dysarthria, dysphagia, sensory symptoms, weakness involving the limbs; may progress to altered level of consciousness
altered level of consciousness, ocular motility disturbance, nystagmus, pupillary abnormalities such as Horner's syndrome, dysarthric speech, abnormal gag reflex, sensory loss, pyramidal weakness
MRI brain: evidence of infarction
angiography (conventional CTA or MRA): vertebrobasilar artery stenosis or dissections

Thank You

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