


Evidence based practice in obstetrics and gynaecology

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Outline of the presentation

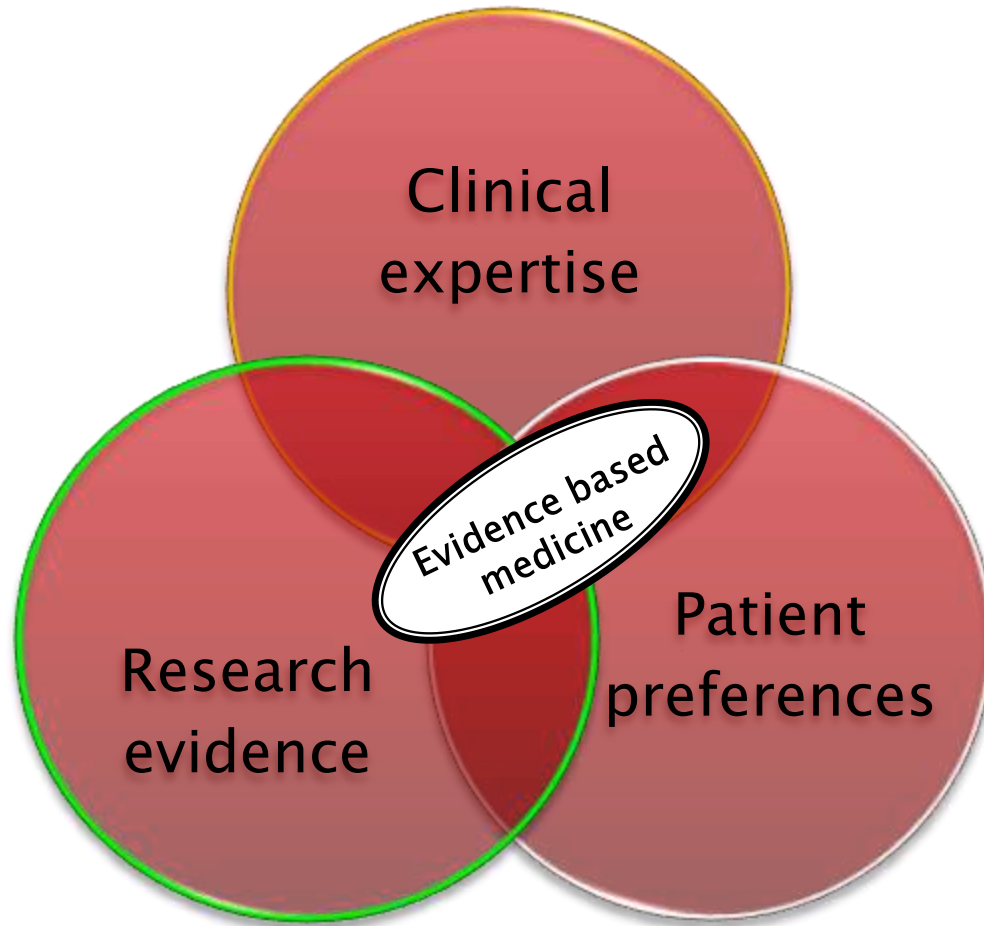
- ▶ Evidence based medicine: what, why, how?
 - ▶ Review some of the existing evidence based practices in Obstetrics
 - ▶ Strategies and tools to implement evidence based medicine (obstacles and actions)
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Evidence-Based Medicine

What, why, how?




Evidence based Medicine - What?



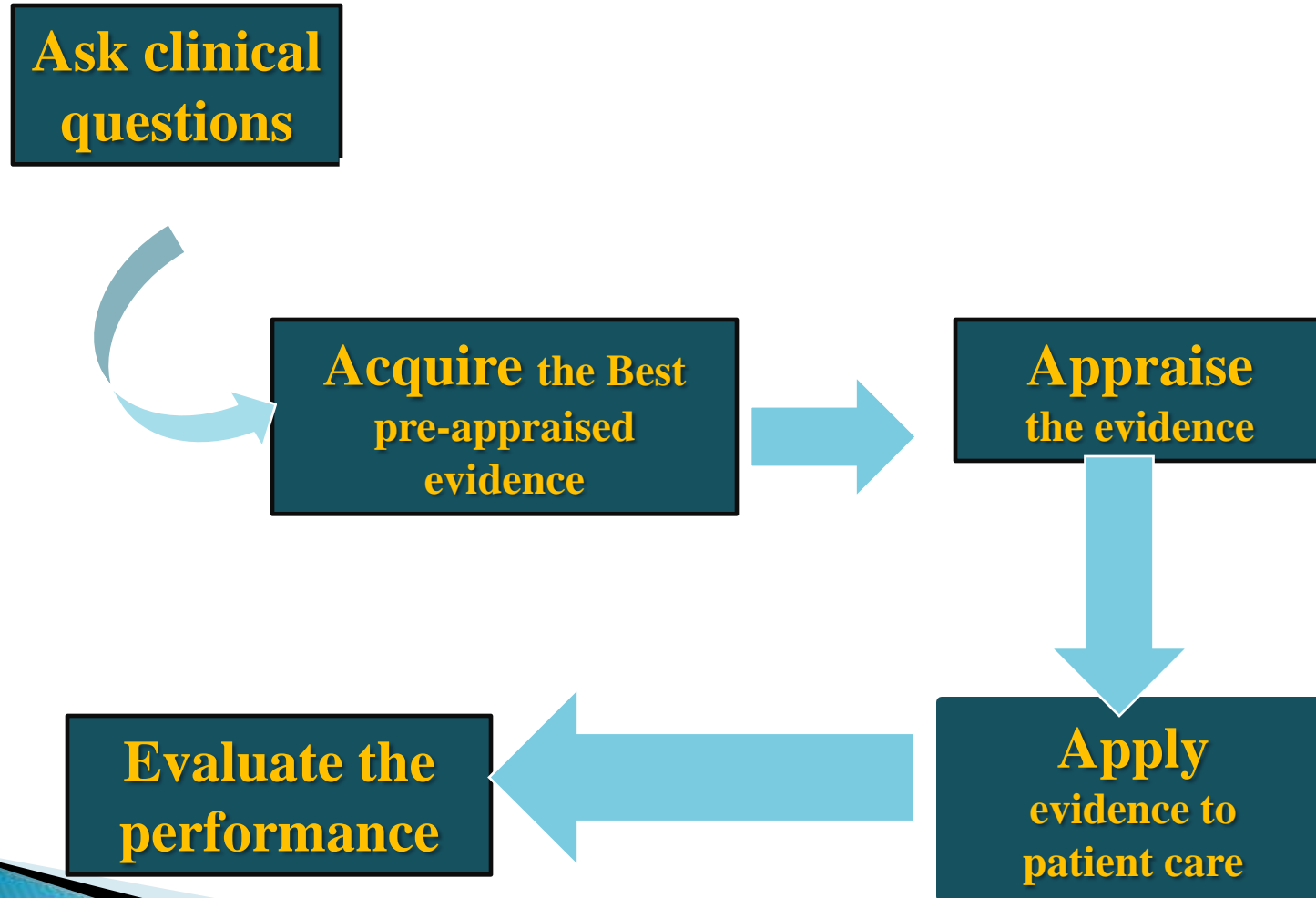
“the integration of best research evidence with clinical experience and patient values”

(Sackett et al., 2000)

Evidence based medicine - Why?

- ▶ To improve quality of care, provides best service to the patient/client.
 - ▶ It promotes practices that have better outcomes and are scientifically proven to be effective. It keeps knowledge up to date.
 - ▶ It aims to eliminate unsound or risky practices, thus promoting patient safety.
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Evidence based medicine - How?



Step I: Ask Clinical Questions: PICO

Components of Clinical Questions

Patient / Population

In patients with threatened PTL

In women with suspected Endometriosis

In post-menopausal women

Intervention/ Exposure

Does easy treatment with B-mimetic

What is the accuracy of CA125 assay

Does hormone replacement therapy

Comparison

Compared to Ca Channel Blockers

Compared to Laparoscopy

Compared to no HRT

Outcome

Decrease fetal mortality & morbidity

For diagnosing endometriosis?

Increase the risk of breast cancer?

Step 2: Find the Evidence

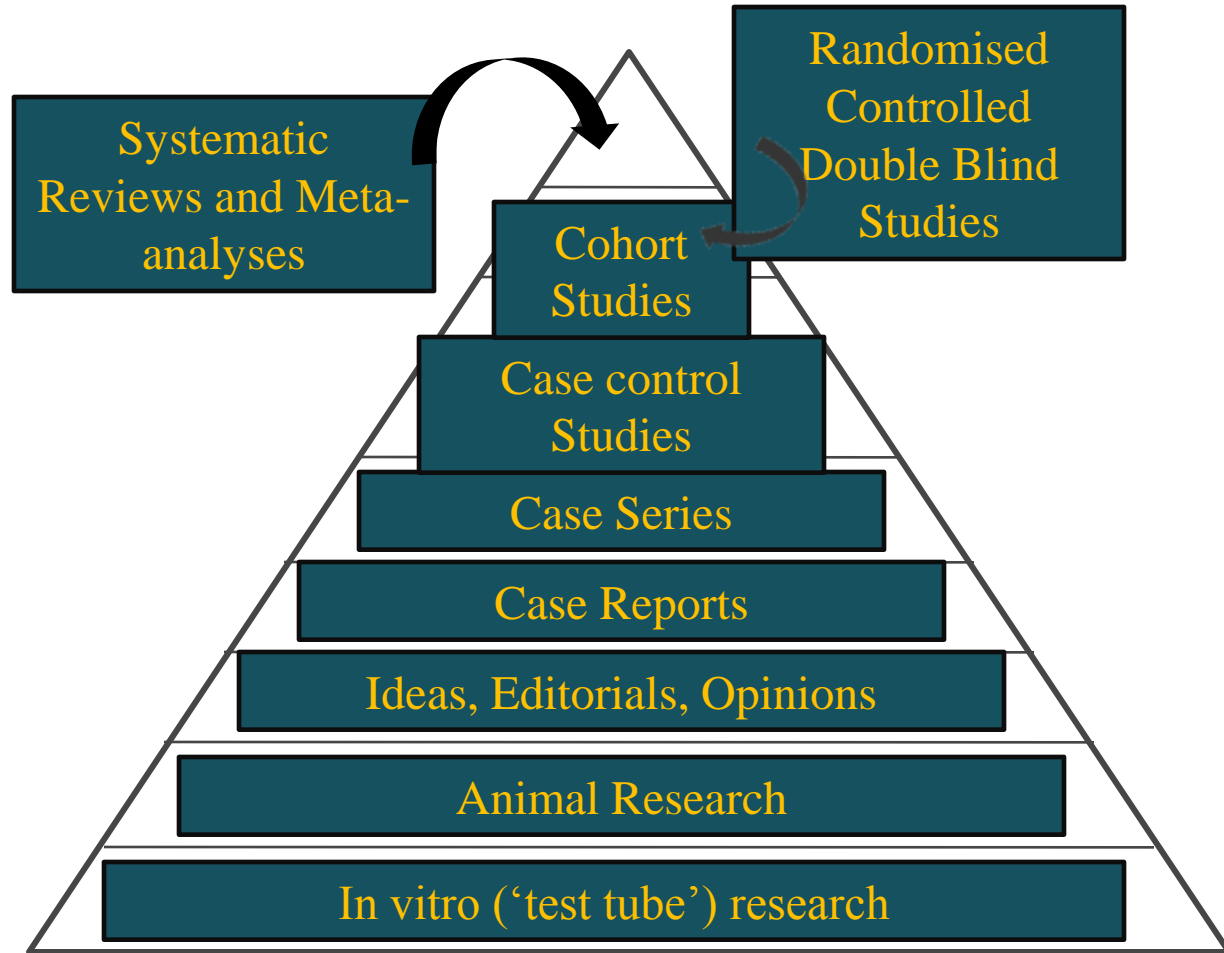
- ▶ Pre-appraised evidence:
 - Cochrane Library database, Embase, LILACS, IMEMR
 - WHO- Reproductive Health Library (RHL)

- ▶ Medline or Pub Med search:
 - Systematic reviews
 - Randomised control trials
 - Observational studies


Step 3: Appraise the evidence

- Need certain skills to check the research evidence for:
 - validity
 - importance
 - applicability to the population/patient
- CASP, Oxford USA has developed tools for appraising evidence (available on internet)
- *GRADE : System for grading evidence; 2003- Grading of Recommendation Assessment Development and Evaluation*

Step 3: Appraise the Best Evidence (2)



GRADE: Quality of evidence

1. High - *Further research is very unlikely to change our confidence in the estimate of effect*
 2. Moderate - *Further research is likely to have an important impact...*
 3. Low - *Further research is very likely to have an important impact...*
 4. Very low - *Any estimate of effect is very uncertain*
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GRADE: strength of recommendations

Strong recommendation:


- ▶ confident that the desirable effects of adherence to a recommendation outweigh the undesirable effects.

“Do it” or “don’t do it”.

Weak recommendation:


- ▶ that the desirable effects of adherence to a recommendation probably outweigh the undesirable effects, but is not confident.

“ Probably do it” or “ Probably don’t do it”.



Step 4: Apply the evidence

Whether the evidence can be applied to individual patient or population?

- ▶ Patient perspectives, his values and circumstances
 - ▶ Cost, available resources
 - ▶ Availability of the particular treatment in the hospital or practice
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Step 5: Evaluate the performance


Is EBM improving patient care?

As we continue our practice, we need to evaluate our approach at frequent intervals, in order to know how we are doing and where we need to improve.

Formal auditing of performance may be needed to show whether EBM approach is improving patient care.

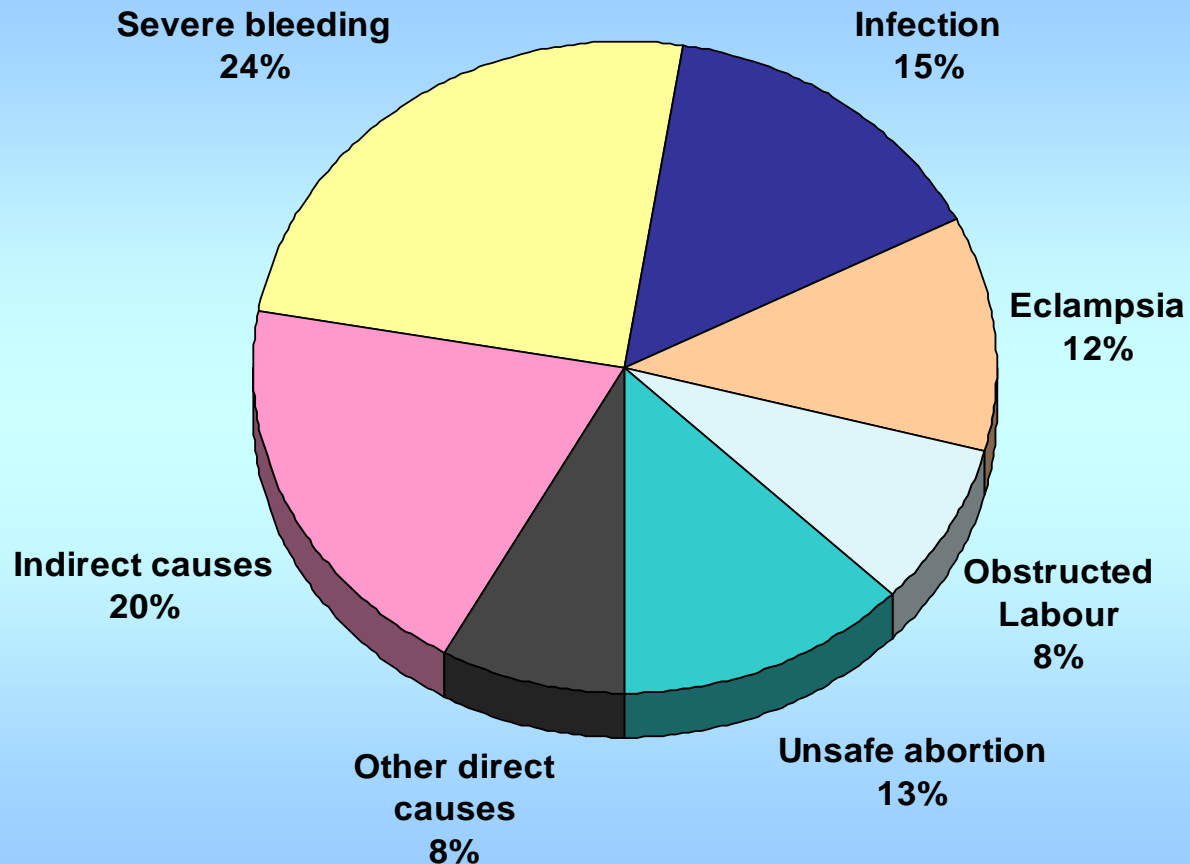
Evidence based practices in obstetrics

Current scenario


- ▶ Every minute a woman dies from complications of pregnancy or childbirth.
 - ▶ All but 1% of these deaths occur in developing countries.
 - ▶ Most of these deaths could be avoided **only** if appropriate care was available throughout pregnancy, childbirth and the post-natal period.
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Causes of maternal death

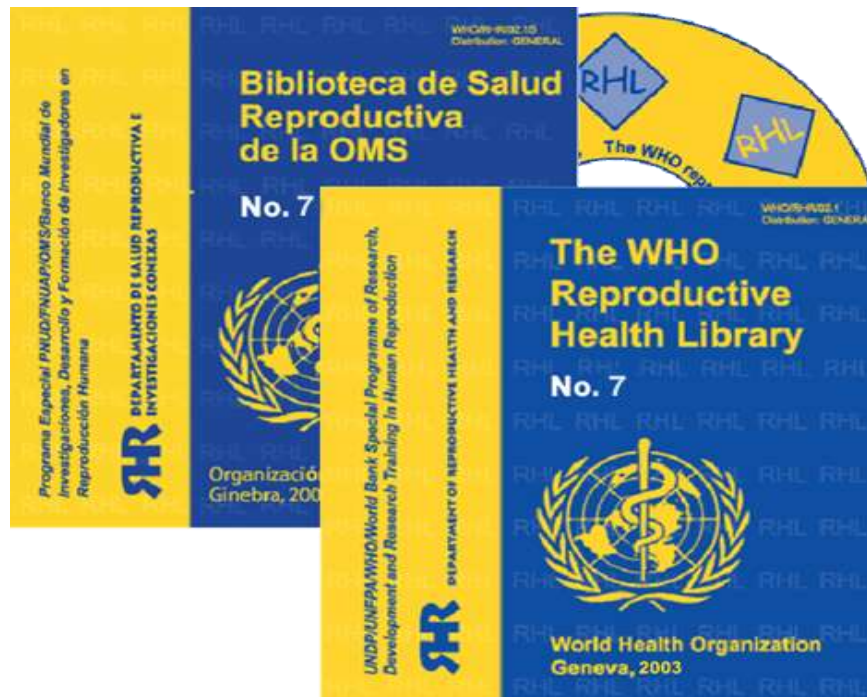
529,000 deaths: 99% in developing countries



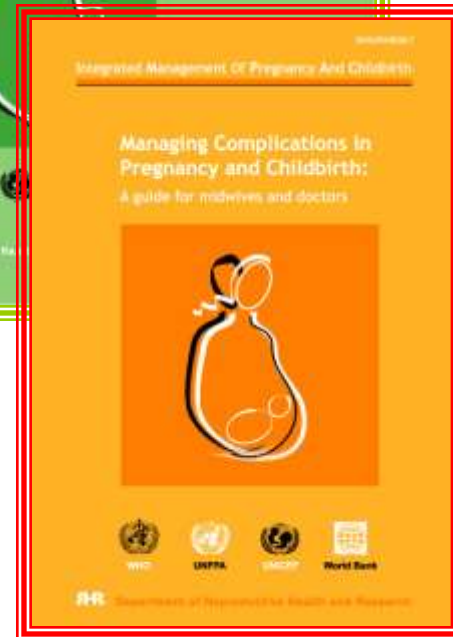
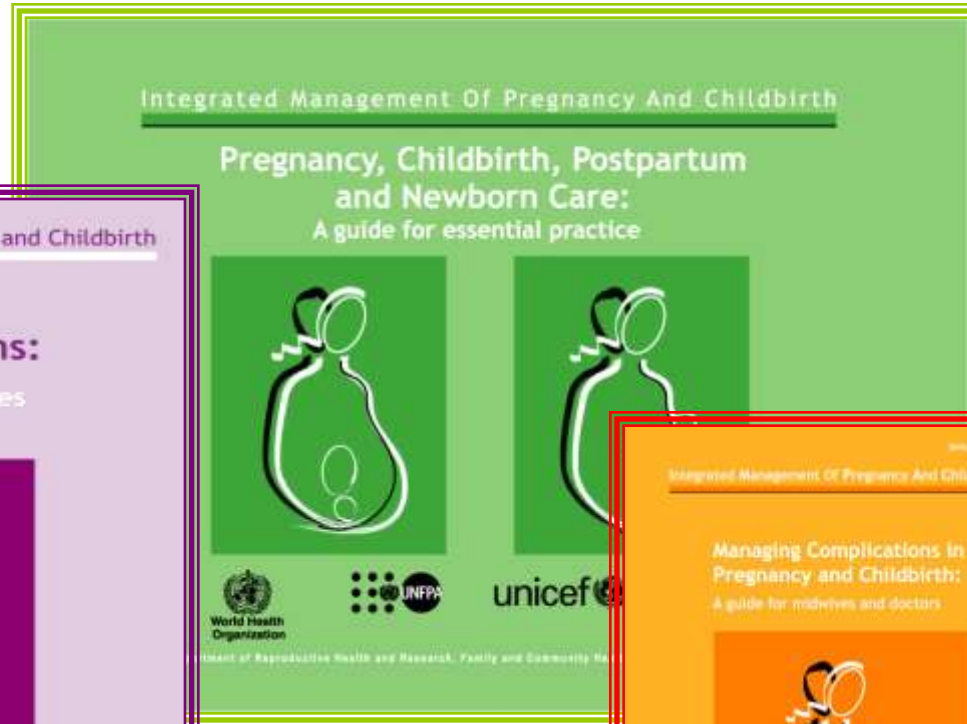
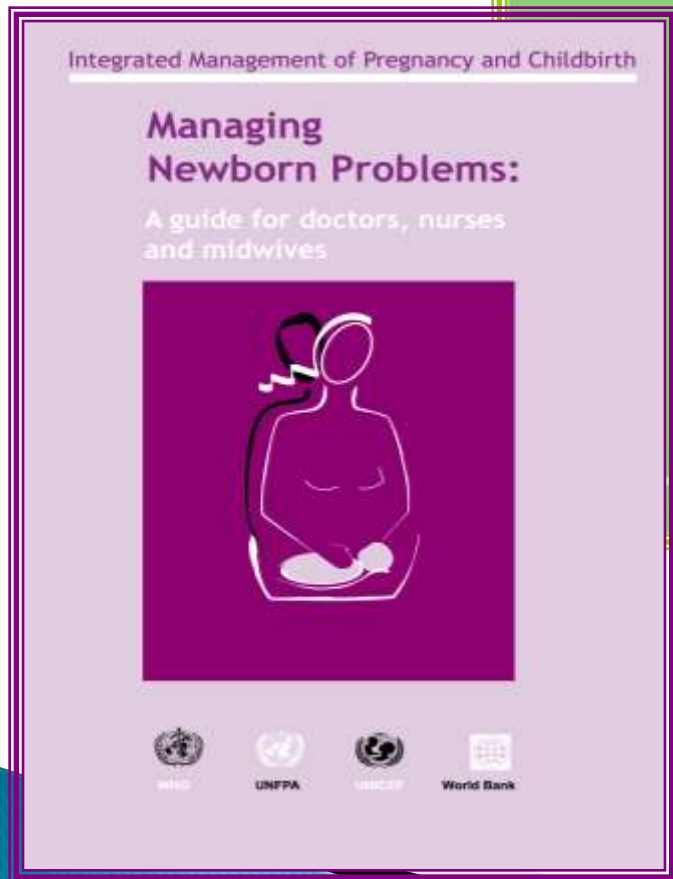
Evidence based practices-effective

- Active management of the third stage of labour.
 - Antibiotics for asymptomatic bacteriuria in pregnancy.
 - Antibiotic prophylaxis for caesarean section.
 - Magnesium sulfate for eclampsia.
 - Continuous support for women during childbirth.
 - Use of simplified partograph to monitor labour.
 - External cephalic version for the management of breech presentation.
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The WHO Reproductive Health Library



Clinical evidence-based IMPAC guidelines: according to level of care



Arabic
Portuguese
English
French
Spanish
Russian
Laotian
Vietnamese
Indonesian
Chinese
Farsi
Mongolian
Mandarin
Bangle
Dari
Pushtu
Korean
Timoreses

Evidence based practices-ineffective


Practices that should be eliminated

- ▶ Pubic Shaving, enemas
- ▶ Rectal examination
- ▶ Supine position

Practices that should not be used routinely

- ▶ Continuous cardiotocography (CTG) as a form of electronic monitoring (EFM) for fetal assessment during labour
- ▶ Routine episiotomy
- ▶ Multiple-micronutrient supplementation for women during pregnancy

Effective practices-inappropriate use

- ▶ Caesarean section rates in the world are increasing...40%.
 - ▶ Abuse of oxytocin: in some parts of India, Mali, Nepal, Senegal 1/3 of women received oxytocin during childbirth.
 - ▶ Routine episiotomy- no evidence that it protects perineum; associated with increased risk of HIV transmission, trauma, perineal tear & dyspareunia.
 - ▶ Routine early amniotomy- when labour is progressing normally.
 - ▶ Excessive use of ultrasound, blood transfusion.
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Current situation

- ▶ Consistent evidence of failure to translate research findings into clinical practice.
 - 30-40% patients do not get treatment of proven effectiveness.
 - 25% get care that is not needed or potentially harmful e.g...

Schuster, McGlynn, Brook(1998).Milibank Memorial Quarterly
Grol R (2001). Med Care.

The challenge: Know-Do Gap

Research findings will not change population outcomes unless health services and health care professionals adopt them in practice.



Overcoming the transfer and application of knowledge gap



To take evidence into practice


Physicians' attitudes

- ▶ “erosion of physician autonomy”
- ▶ “scarcity of evidence in reproductive health”
- ▶ “time consuming”
- ▶ “obstetrics requires manual dexterity more than science”
- ▶ “evidence based medicine ignores clinical experience”

Olufemi A Olatunbosun, Lindsay Edouard, Roger A Pierson

This assumes that key barriers relate to individual professionals knowledge, attitude and skills - there is more than one barrier operating at multiple levels.

Obstacles to Evidence based practice

- ▶ Organisational (lack of facilitates, equipment, overload)
 - ▶ Structural (regulation, financial disincentives, insufficient investment in training)
 - ▶ Peer group and supervisors (local standards of care not in line with desired practice)
 - ▶ Professional-patient interaction
 - ▶ Individual (knowledge, attitude, skills - decisions largely based on rule of thumb, beliefs rather than on scientific evidence)
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Increasing/Implementing Evidence-based obstetric care



Systematic review of guideline dissemination & implementation strategies

Grimshaw JM, Thomas RE, MacLennan G, Fraser C, Ramsay C, Vale L *et al.*

Effectiveness and efficiency of guideline dissemination and implementation strategies. Health Technol Assess 2004.


Available from: <http://www.hta.nhsweb.nhs.web.nhs.uk/>




Summaries of systematic reviews

- ▶ *Passive dissemination of printed educational materials can make only a small impact on practice.*
- ▶ *Interactive workshops can result in moderately large changes in professional practice. Didactic sessions alone are unlikely to change practice.*
- ▶ *Reminders most consistently observed to be effective.*
- ▶ *Educational Outreach visits can change HCP behaviour.*
- ▶ *Audit and feedback can be effective in improving professional practice.*


Choosing interventions

- ▶ **The bad news** - Little empirical evidence to guide choice of intervention to address different barriers. Considerable judgement needed!
 - ▶ Poor theoretical understanding of provider and organisational behaviour.
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Choosing interventions

- ▶ **The good news** –Evidence shows that it is possible to change provider behaviour although effects are modest. Interventions addressing barriers at different levels may influence provider behaviour.
 - ▶ Need to move away from one size fits all approach – different interventions are needed depending on attributes of behaviour, provider and practice environment.
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Strategic options to promote evidence based practice (1)

- ▶ **Accreditation** : especially endorsed by International organisations, where institutions are rewarded for achieving certain levels of good practice appear to motivate HCP to change their practices.
 - ▶ **Training** : UG and dissemination of EBP in local languages e.g. China, Thailand.
 - ▶ **Teaching** : Critical appraisal of evidence.
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Online resources for EBP

- ▶ Effective Care in Pregnancy and Childbirth - first textbook published as Oxford database of Perinatal trials
- ▶ The Cochrane Pregnancy and Childbirth Database
- ▶ WHO Reproductive Health Library- cd Rom
- ▶ RH clinically Integrated EBM Course
- ▶ The Cochrane Collaboration www.cochrane.org
- ▶ Academic institutes in UK, USA, GFMER, Switzerland - Evidence based course
- ▶ www.guideline.gov/ free access
- ▶ www.evidence-basedmedicine.com bimonthly journal
- ▶ www.gfmer.ch/Guidelines/Obstetrics_gynecology_guidelines.php

Strategic options to promote evidence based practice (2)

- ▶ **Formal linear approaches:**
 - setting priorities, measure current practice
 - assess need for guidelines, adapt EB guidelines to local needs
 - decide on measurable outcomes
 - evaluate interventions systematically
- **Informal approaches:** where formal approaches are not possible, clinicians in charge of institutions are encouraged to develop ways to influence practice with highly motivated people using the “plan-do study-act” scheme

Strategic options to promote evidence based practice (3)

- ▶ **Increase political and donor commitment**
- Disseminate evidence based summaries to them
- Advocate for grants/funds allocation for implementing evidence based practices
- *Thai government sponsored 3 PhD students to undertake training in EBP at the Liverpool School of Tropical Medicine*
- *Nigeria government requested an EBM officer to be located within the National Tropical Disease Research Institute in Calabar*

Conclusions

- ▶ *Clinical research is consistently producing new findings that may contribute to effective and efficient patient care. The findings of such research will not change population outcomes unless health services and health care professionals adopt them in practice.*

Grimshaw. Oxford handbook of public Health

- ▶ *What matters in health care is identifying and using interventions that have been shown by strong research evidence to achieve the best outcomes within available resources for everyone.*

Fletcher R, Lancet 1999

Good doctors use both individual clinical expertise and the best available external evidence, and neither alone is enough.

Without current best evidence, practice risks becoming rapidly out of date, to the detriment of the patient

Sackett 1996

