

# THE ROLE OF EVIDENCE BASED MEDICINE IN ENSURING CLINICAL QUALITY

Bosede B Afolabi, FRCOG (UK), FWACS, FMCOG  
Consultant Obstetrician and Gynaecologist, LUTH



# Outline

- What is evidence based medicine
- Role in clinical effectiveness
- What is clinical quality
- Role of EBM in clinical quality
- Way forward in our environment

# EBM - Definition


- Practising health care based on real evidence
- “The integration of individual clinical expertise with the best available clinical evidence from systematic research.”
  - David L Sackett, W Scott Richardson, William Rosenberg, R Brian Haynes *Evidence Based Medicine-- How to Practice and Teach EBM*, 1996

# The essence of evidence based practice

- **All** evidence is sought and examined systematically
- Evidence is wherever possible quantified
- Evidence is considered in **All** decisions in healthcare
- Evidence doesn't make decisions: human beings do



# EBM

- Evidence from systematic reviews
  - Randomised controlled trials
  - Meta-analysis
- 

A vertical bar on the left side of the slide, consisting of several colored segments: a thin black line at the top, followed by a thin grey line, a thin yellow line, and a thick pink line at the bottom.

A little tale...

# Has EBP changed the world?

- **Old world:** Source of knowledge is expert opinion
- **New world:** Source of knowledge is systematic review of evidence

# Has EBP changed the world?

- **Old world:** Research is marginal to practice
- **New world:** Research and practice go together



# Has EBP changed the world?

- **Old world:** Main information sources are experts, selected journals, and books
- **New world:** Essential to have immediate (electronic) access to systematically collected evidence

# Has EBP changed the world?

- **Old world:** Most of what doctors need to know is in their heads
- **New world:** Doctors must use information tools constantly

# Has EBP changed the world?

- **Old world:** Most medical care is assumed to be beneficial
- **New world:** Widespread recognition that the balance between doing good and harm is fine

# Has EBP changed the world?

- **Old world:** Clinical performance is not systematically audited
- **New world:** Clinical performance is regularly reviewed and managed

# Has EBP changed the world?

- **Old world:** Managers have little involvement in clinical processes
- **New world:** Managers are involved in clinical processes

# Has EBP changed the world?

- **Old world:**  
Organisational model is hierarchical
- **New world:**  
Organisational model is much more democratic, based on ability to use evidence

# Has EBP changed the world?

- **Old world:** Patients do not have easy access to the knowledge base of doctors
- **New world:** Patients have as much access to the evidence base of medicine as doctors

# Has EBP changed the world?

- **Old world:** The doctor is smartest
- **New world:** Often the patient is smarter



# Levels of evidence

- I: At least one properly designed randomized controlled trial.
- II-1: Well-designed controlled trials without randomization.
- II-2: Well-designed cohort or case–control analytic studies, preferably from more than one center or research group.
- II-3: Multiple time series with or without the intervention. Dramatic results in uncontrolled experiments also could be regarded as this type of evidence.
- III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees
- (IV) ...someone once told me....

# Systematic Review (–not just another review)

'review of a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant research and to collect and analyse data from the studies that are included in the review. Statistical methods (meta-analysis) may or may not be used to analyse and summarise the results of the included studies'

Clark M and Oxman AD 2003. Cochrane Reviewers' Handbook 4.2.0 Oxford: The Cochrane Library

# Systematic review

- Establish researchable question: population, intervention, outcome
- Identify and consider *all* available evidence
- Use an explicit process to identify, and combine evidence if appropriate
- Justify all included and excluded studies
- Interpret the evidence and its applicability to the population of interest
- Assess the strength of the evidence gathered



# EBM

- Evidence not always available
- When unavailable, use next best evidence
- Least evidence is the one from experts

# Role in clinical effectiveness

- Why should we practice EBM
- Best possible effect
- Side effects may be more than others eg misoprostol versus foley catheter for induction of labour

# Role in cost effectiveness

- The use of the most effective drug available will ensure saving money as it will be used in a shorter time than less effective ones e.g.

Non-steroidal anti-inflammatory drugs for dysmenorrhoea instead of buscopan

# Drawbacks

- Huge amount of information – no time or skills
- Where to look – Good IT access essential
- Evidence must be backed by experience
- Experts are afraid of not knowing

- [National Guideline Clearinghouse](#)<sup>\*\*\*</sup> -
- [Cochrane](#)<sup>\*\*\*</sup> - Systematic reviews of literature
- [TRIP - CeRes](#)<sup>\*\*\*</sup> - British meta-search engine
- [Clinical Queries - PubMed](#)<sup>\*\*\*</sup> - Evidence
- [UpToDate](#)<sup>\*\*\*</sup> - Topic reviews on specific
- [MD Consult](#) - Practice guidelines, clinical
- [Clinical Evidence Online](#)<sup>\*\*</sup> - Provides a
- [Best Evidence](#) - Provides a searchable
- [CAT Bank](#)<sup>\*</sup> - 63 Critically Appraised Top
- [SUM Search - Univ. of Texas](#) - Meta-sea
- [Bandolier](#) - Reviewed literature, offers s



# UNKNOWN TERRITORY.....



# What is clinical quality

- The practice of medicine in the most efficacious, least side-effects and complications, and cost – effective way possible
- **Clinical governance** – framework for continuous quality improvement and ensuring high standards by creating an enabling environment
- **Quality assurance** – measurement actual level of service; attempt and maintain an acceptable standard of care
- **Quality control** – technical activities to measure and control acceptable standards

# Clinical quality – 6 components

- **Effectiveness – evidence base leading to improved health outcomes**
  - Use of EBM guidelines, procedures, protocols
- **Efficiency – maximise resources, avoid waste**
  - Theatres run optimally, bed occupancy consistent with delivery of high quality care
- **Accessibility – timely, geographically feasible**
  - Meeting waiting times, skills appropriate to needs

# Clinical quality

- **Patient centered – preferences and culture of users**
  - Samples patient opinion, local & national surveys
- **Equity – same in quality across age, gender, ethnicity**
  - Analysis ensuring equal treatment to all
- **Safety – Minimises risk**
  - Incident reporting, analysis of outcomes eg infection rates, complications, survival

# EBM & Clinical quality

- Compatible?



- Most certainly



# Way forward

Simple. Why not in practice?

- Lack of awareness
- Even when aware, inertia of actually putting into practice
- Feasibility – environmental limitations

# Way forward

- Increase awareness of EBM centre by centre
- If you wait till every institution grasps what it means, too long
- Once an institution grasps, device a strategy for the individual institution




# Way forward

- Diagnose current situation and set goals
  - Where are we now, where do we want to be
- Develop strategy and action plan
- Determine method to use and ACT
- Evaluate and monitor



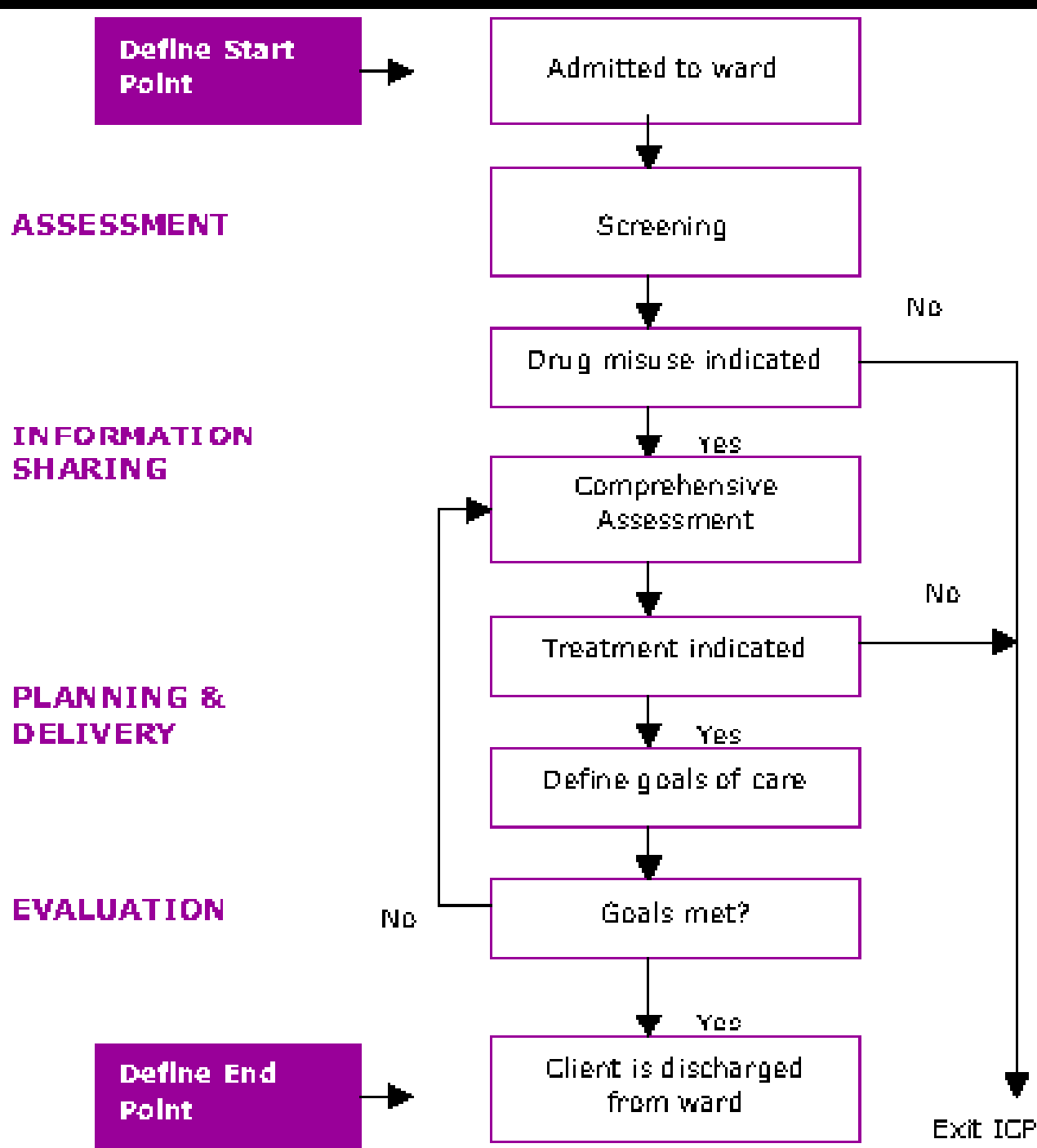
# Practical beginnings

- Protocols for simple procedures eg hand washing, lifting patients, theatre techniques and precautions, etc
- Guidelines for specific conditions
- Induction of labour, Management of SCD in pregnancy, management of stroke, management of acute asthma, etc
- Ensure guidelines are used!



## More detailed beginnings – Integrated care pathways

- Delivers EBM as part of everyday patient care
- An ICP informs the hospital about the resources tests and treatments that are available for a particular condition and ensures that the care is organised, coordinated and can be tracked, monitored and costed.



### Menu of documents

- Personal Lifestyle Outcome Trace (P.L.O.T.)
- Substance Abuse Subtle Screening Inventory (S.A.S.S.I.)
- Triage Assessment for Addictive Disorders (T.A.D.D.)
- Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES)
- Comprehensive Addictions and Psychological Evaluation (C.A.A.P.E.)
- Beck Depression Inventory
- Hospital Anxiety & Depression Scale
- Sleep Chart
- Urinalysis Sheet
- Risk Assessment Tool
- Methadone Treatment Questionnaire (M.T.Q.)
- Drug Screening and Testing Protocol
- Visiting Arrangements Protocol
- Information Sharing Protocol
- Consent Forms



# Way forward

- Regular meetings to discuss patient care – brief ones daily and longer ones monthly
- Review guidelines regularly – evidence changes
- Review processes as well
- Work on staff attitude and morale

- 
- I THANK YOU ALL FOR LISTENING



# References

- Evidence-Based Medicine:  
Tools, Techniques, Results, Harold P. Lehmann, MD PhD, Cindy Sheffield, MLS
  - Evidence based practice (not medicine): perspectives of an editor.  
Richard Wright, former editor, BMJ
- 