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Evidence – Based Medicine (Practice/Care)

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Introduction:

The medical decision–making process has, traditionally, been viewed as impressions of individual physicians, which is based on unsystematic observations and has been criticized as being inconsistent, leading to large variations in practice and inequality in services' provision (Lockett, 1997). This has led to an increased demand for an effective, efficient, and accountable **N**ational **H**ealth **S**ervices (NHS) and healthcare that based on evidence.

The concept of **E**vidence-**B**ased **M**edicine (EBM) is old and relates to clinical trials (Lockett, 1997). The objectives of EBM are to; eliminate inconsistent, ineffective, unsafe, and expensive decision–making practices (Rosenberg and Donald, 1995). It aims at systematically locates, appraises, and uses the research findings to make informed clinical decisions (Roberts, 1999).

The phrase EBM has originated from McMaster University in Canada. However, **E**vidence-**B**ased **C**are (EBC) or **E**vidence-**B**ased **P**ractice (EBP) are preferable alternatives than EBM, as they encompass medical, nursing, and other aspects of health care. **C**ost **E**ffective **M**edicine (CEM), which links cost to efficiency and effectiveness, has also been proposed as a synonymous to EBM (Lockett, 1997). The current evidence has shown that effective quality care raises the costs, but paradoxically the development of guidelines have been perceived as a drive to reduce costs (Newton et al, 1996).

There is a concern of misunderstanding of the concept by some health professionals and the following points deserve further reflection:

- What constitutes acceptable evidence?
- The tendency to accept, without scrutiny, of any published work.
- The disregard of consensus, good experience, and valid observation.
- The over ambitious perception of EBM as the solution for all clinical problems.
- The simplification of EBM as a treatment plan for the individual patient

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Despite the theoretical debate about EBM, there is less emphasis on the practical application of evidence. This recognised gap is a large hurdle; hence, the need for a systematic approaches to fill this gap. It also requires structured appraisal method to determine the value of any research (Alderson, 2004).

What is evidence?

The Oxford dictionary defines the verb evidence as to; attest, prove, or demonstrate. While the noun is defined as; the quality of condition of being evident, clearness, an appearances for which inferences may be drawn, an indication, a mark, a sign, a token, a trace, or to prognosticate.

What is Evidence – Based Medicine?

Lockett (1997) defined EBM as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.

Discussion:

Clinicians endeavour to give their patients the best possible care; by following standard, recognised, and accepted practices that based on the best available evidence. Evidence based guidelines is a reference framework for good, standard practice. However, the concept is subject to the interpretation of the carers according to the clinical situation and is not infrequently abused to restrict professionals from using their clinical judgements. Some professionals are yet to realise that EBP is not a panacea for all the clinical problems. Difficulties may arise when:

- One party of health carers positions itself as the **sole advocate** of the patient.
- Some health professionals view EBC as the **only** effective treatment for the individual patient (Roberts, 1999).
- The issue involves a **change** in practice.

Many aspects of obstetrics and gynaecology practices are controversial; based on consensus or impression that require further evaluation; however, a proportion of these practices are difficult to subject to rigorous standards of scientific evidence, such as double blinded, randomised, and controlled trials.

Evidence-Based Practice should not be an excuse for the introduction of procedures prior to adequate evaluation; an example in gynaecology practice was the unplanned introduction of Laparoscopic Assisted Vaginal Hysterectomy in the nineties, which has resulted in some undesirable outcomes and without adding any benefits to patients. Fetal monitoring by **C**ardio**t**oco**g**raphy (CTG) is another example from obstetrics, when an imperfect test was introduced prior to any rigorous evaluation. The introduction of CTG has not shown to reduce perinatal morbidity or mortality, but in the contrary has led to increased unnecessary medical interventions.

The notion of scientific evidence originates from the positivist theory, which gives regards to phenomena that can be objectively explained in term of sensory evidence and disregards and excludes phenomena that based on metaphysics (Misak, 1995, as cited in Lockett, 1997). Lockett (1997) envisaged that such practice may lead to a utilitarian type of medicine, with strong ethical overtone.

Acceptable scientific evidence is, basically, an objective observation of nature by a scientist. Then, what makes a sound observation made by an experienced clinician, who is also a scientist, unacceptable? The health practitioners have to realise the limitations of health research and that it is not the only source of evidence. Secondly, there are occasions where ethical approval for research is impossible. Thirdly, there might be occasions when the only available evidence is based on clinical experience. There are attempts

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to build a body of a systematic and reproducible knowledge based on experience. A proportion of clinical practices, while not being evidence-based, will stand up to evidence testing (Lockett, 1997). It is hard to understand why some professionals are against evidence based on experience, criticizing it of being influenced by personal beliefs and values, when any evidence is not immune from being influenced by the beliefs and interests of the researcher.

In EBP, the main question remains; how to get the required evidence for the intended intervention? There is a plethora of medical and clinical information available from different sources. The rapid advances in information technology have made access to data basis inexpensive and easy; however, the problem is not in the magnitude or the availability, but in the way we select, scrutinise, criticize, and appraise the evidence. The emphasis is on the retrieval and appraisal of research, which are time consuming and constraining. The solution might be in the utilisation of the librarian staffs that are well positioned to retrieve the required data, if they were provided by the required information.

The selection process is subject to individual bias, hence the need for systems to overcome that represent the interest of the different parties involved in patients' care such as; the **N**ational **I**nstitute of **C**linical **E**xcellence (NICE), **C**linical **G**overnance (CG), **C**ontinuous **P**rofessional **D**evelopment (CPD), national audit and appraisal.

The evidence for the effectiveness of EBM is difficult to quantify and its application in the current climate of the health services provokes controversial issues. Lockett (1997) has suggested alternative surrogate markers for EBM, such as philosophical or ethical objectives. Whatever the objectives, the clinical application of EBM has political, financial, and managerial implications (Sackett et al, 1996).

Conclusion:

Evidence-Based Practice should not be viewed as an opponent to clinical judgement based on experience. The access to reliable evidence should be easy. A systematic approach in the application of the evidence is desirable. Clinical governance and regular auditing of the practice are integral parts of the care process. Any obstacles to the implementation of EBP could be overcome by the:

- Mutual understanding of the opinion of the other party.
- Adoption of an exemplary team approach that demonstrates the benefits of EBP through its outcomes.
- Rejection of confrontational approaches.
- Through regular auditing of the practice.

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