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**HOW PRACTITIONERS DO
EFFECTIVELY ARTICULATE
EVIDENCE-BASED MEDICINE
AND PATIENT-BASED MEDICINE
IN EVERYDAY PRACTICE ?**

How practitioners do effectively articulate Evidence-based medicine and patient-based medicine in everyday practice?

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Therapeutic decisions in cancerology are no longer the sole product of local expertise, but of a combination of individual expertise and of Evidence-Based Medicine (EBM), defined as “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Sackett, Rosenberg, Gray, Haynes & Richardson, 1996). In spite of its several benefits, EBM consists in a generic model of care management, which is not always adapted with specific patients’ characteristics (Bensing, 2000; Eckman, 2001; Ford, Fallowfield & Lewis, 1996).

After having specified the main oppositions between EBM and patient-centered medicine, this paper will focus on the role attributed to patients in practitioners’ reasoning, from a study carried out in a breast cancer institute.

Keywords: therapeutic decision making, evidence-based medicine, patient-based medicine.

1. “Evidence-based medicine” versus “patient-based medicine”

Evidence-based medicine presents three important benefits which make it an essential resource for therapeutic decision making:

- it is a tool of medical knowledge management, since it allows practitioners to shake off the quantity of medical knowledge and to have access more rapidly to the more accurate treatments (Davidoff, Haynes, Sackett & Smith 1995);
- it is a tool of assistance to individual and collective decision making. In this sense, it reduces the part of uncertainty of the decision;
- it ensures the quality of care given to patients.

In spite of these positive aspects, the main critic made to EBM is that it does not take into account the diversity of patients encountered in everyday practice (Sackett et al, 1996; Knottnerus & Dinant, 1997; Bensing, 2000; Haynes, 2002). Indeed, “real” patients do not necessarily match with “standard” patients defined by EBM rules, either because they present comorbidities which restrain the application of standard treatments (medical characteristics), or because they do not consent to receive these treatments (patients needs and preferences) (Howitt & Armstrong, 1999; Protheroe, Fahey, Montgomery & Peters, 2000).

Two models of decision making can be distinguished.

On one hand, a generic model, based on the rationality of the decision (EBM).

On another hand, a specific model, centred on the conformity of the decision to patients’ needs and preferences (patient-based medicine) (see for example Ford *et al.*, 1996).

When the first model is exclusively centred on the disease (internal or statistical validity), the second one deals with the patient which has the disease (external validity),

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and enhances the necessity to develop individualized decisions, adapted to the specific characteristic of the patient.

Table 2 summarizes the main oppositions between these two models.

	Evidence-based medicine	Patient-based medicine
Focus	The disease	The patient suffering from the disease
Validity	External / objective	Internal / subjective
Object of analysis	Homogeneous group of patients	Specific characteristics of the individual patient
Source of knowledge	Literature	Patients' needs and preferences
Decision type	Rational	Consistent with patients' demands

Table 2. Evidence-based medicine versus patients' needs and preferences medicine (adapted from Bensing, 2000; Eckman, 2001).

Nevertheless, if the specific model (centred on patients) aims to privilege patients' needs and preferences, it cannot ensure the quality of care, and may result in decisions contrary to patients' clinical interests. Conversely, if EBM ensures the quality of care given to patients, it does not cover the variability of cases encountered in everyday practice, and does not take into account patients needs and preferences.

Thus, both models appear necessary but insufficient to achieve a high level of care quality and an appropriate consideration of patients' demands. As noted by Smeeth (2000), a "good practice" can be defined as a practice informed by evidence, but which does not always follow the evidence.

The activity of therapeutic decision making can also be defined as the activity by which the practitioners combine both the rules elaborated from objective criteria and the situational data to achieve a solution acceptable both by patients and practitioners.

2. The place of patients in practitioners' reasoning

This section presents a study carried out in a cancer institute, which intended to better understand the types of knowledge used by practitioners when confronted with unusual situations (i.e. which do not match with standard rules).

19 practitioners were asked to think aloud while resolving 14 case studies involving one or more factors that make the strict application of EBM rules impossible. Among these cases, 3 described patients who refused a treatment.

Two main points will be developed: first, the role of practitioners' previous knowledge about patients in the process of decision making, and second, the impact of patients' demands on the therapeutic attitude adopted by the practitioners. This last point will be exclusively based on the 3 case studies involving explicit patients' demands. Our goal is to understand how these situations influence the nature of the relation between the practitioner and the patient, and the consequences it has on the final decision.

2.1. The role of practitioners' previous knowledge about patient

The activity of decision making is above all constructed from the doctor-patient interactions. Through successive interviews, the practitioners characterize the type of

patient they have to treat. This process of characterization determines the therapeutic attitude adopted by the practitioners, and, accordingly, the decision to be made. It implies two main activities:

- 1- The construction of a representation of patients' knowledge. The role of the practitioners is also to access to patients' demands, and particularly to the origin of these demands. Indeed, the demands such as they are formulated by the patients do not always match with their "real" demands. To access to them, the practitioners dispose of knowledge schema developed from practice. For example:

"Often when the demand is formulated in such a way [wish of pregnancy], it does not means I want to have children but Am I now healthy?"

- 2- The categorization of patients. The understanding of patients' demands allows the practitioners to categorize patients in classes. For example:

"Some women strictly refuse the ablation when others prefer the ablation because they will not live with the tumor"

This process of characterization will also determine both the form and the content of the exchanges:

"If it's a woman who strictly refuses the breast's ablation, I don't know what to do... She's an adult, she will decide after having heard our explanations. If the refusal is equivalent to the disease's refusal [and not to the ablation's refusal], we can discuss with her"

The process of characterization may also be defined as a process of understanding based on the knowledge that the practitioners have about the patients.

In the present study, even when case studies do not include explicitly patients' demands, practitioners infer potential demands according to their past experience and the characteristics of the patients (age, psychological conditions...). For example:

« According to the protocol, with a tumor of 3 centimetres, she must have a breast's ablation, followed by chemotherapy, an X-Ray therapy, and then a reconstruction one year later. Another way of thinking is the following: anyhow, she will have chemotherapy and an X-Ray therapy. Therefore, we may begin by the chemotherapy followed by the X-ray therapy, and we finish in making the ablation and the reconstruction at the same time. Given that the woman is 39 years old, I think that it is important, in terms of quality of life, that she does not live without her breast. So, I will propose her the second way of thinking".

Likewise, in some situations, practitioners propose two treatments that they judge clinically equivalent, and let the patients decide. For example:

"In this situation there are two solutions: either we debut by the surgery or by the chemotherapy. Both options are equivalent in terms of survey. I think it is necessary to propose these two options at the patient; it is above all at her to decide".

The adaptation of EBM rules may also be based on practitioners' knowledge about patients, patients' demands being anticipated and integrated in the choices of therapeutic solutions. However, adaptation may sometimes be conducted because of the prescriptive character of the patients' demands.

2.2. The role of patients' demands in decision making

As noted by previous studies (Whelan et al, 2003), the attitudes adopted by the practitioners vary according to the degree of compatibility between the demand of the patient and the standard treatment.

When the demand is considered to be accessible, i.e. a treatment exists which permit to satisfy the patients' demand while covering the risks associated to the pathology, practitioners are inclined to adapt standard rules. For example, one of the cases presented to the practitioners describes a 55 year old woman who has a tumor of 5 cm; her breast is voluminous and she refuses its ablation (the breast ablation being the treatment proposed by the protocol). 80% of the practitioners have judged the demand accessible because of the ratio between the size of the tumor and the size of the breast.

When the demand is judged to be inaccessible because it implies to choose a treatment which comprises a high vital risk when better treatments exist, practitioners tend to convince patients to consent to the standard option. The results highlight three strategies used by practitioners to convince the patients:

- 1- The medico-social team. When the practitioners do not manage to convince patients of the utility of treatments proposed, they can ask to other experts (psychologists, nurses...) for assisting them. The objective is to confront various points of view, in order to respond to patients' clinical and psychological worries.
- 2- The time. Time is determinant, both for practitioners and patients.
From the practitioners' point of view, time is a mean to reflect on possible therapeutic solutions which they did not think of at the time of the interview, or which they think but without having knowledge enough to make a decision. Practitioners can also refer to the pluridisciplinary committee or to colleagues.
From the patients' point of view, time may be useful for three main motives:
 - The diagnosis announcement may disturb the capacities of understanding of the patient.
 - Time is determinant in the acceptance of the disease. It plays also a major role in the construction of a relationship based on trust.
 - Time is a means for patients to ask their family and social circle for advice.
- 3- The diversion which refers to the choice of arguments intended to make the treatments more acceptable. It can consist to catch the patients' eyes on a positive effect of the treatment, or to highlight to the negative effects of another treatment.

3. Conclusion

The whole of these elements shows the important part of the patients in the process of therapeutic decision making, whether these last have specific demands or not. The practitioners do not rely only on biomedical knowledge to make their decisions (Boreham, Mawer & Foster, 1996; Boshuizen & Schmidt, 1992, 2000): they dispose of knowledge schemas which include both biomedical and situational data, and which are used to foresee some symptoms (or demands) patients could have.

In the perspective of patients' participation in decision making, the results discussed lead to think that patients preferences, in some situations (and under specific conditions), could be integrated in therapeutic protocols, in order to be taken into account in the decision (Flatley Brennan & Strombom, 1998 ; Protheroe *et al.*, 2000).

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