

International Conference on Clinical Practice Guidelines

September 4, 1998, Frankfurt/Main

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The Logic of Clinical Practice Guidelines

Slide 1

THE LOGIC OF CLINICAL PRACTICE GUIDELINES

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My goal is to define the relationship between clinical practice guideline development and implementation. Guideline development and guideline implementation can be viewed as two cycles linked by an evaluation chain that together define a guideline by-cycle. At the hub of the guideline development cycle is the clinical algorithm and algorithmic thinking, the logic engines that drive practice guideline development, while at the hub of the implementation cycle is the quality improvement, PDCA (plan- do- check- act) cycle, that drives effective implementation. Linking them is the continuous evaluation of process and outcome.

Slide 2

TECHNIQUES FOR ANALYZING CPG LOGIC

- Using Formal Clinical Algorithm Structure
- Algorithmization
- Clinical Algorithm Structural Analysis (CAPA)
- Clinical Algorithm Patient Analysis (CAPA)

Defining the answers to such questions as „what is a guideline?“ „what is a clinical algorithm?“ „how does one learn a clinical algorithm?“, as well as a set of more specific questions relating to the nature of algorithms and guidelines, has enabled us to define three key steps that constitute the guideline development cycle. These are:

1. Evidence-based design and development;
2. Dissemination and learning;
3. Local tailoring.

These steps enable us to define the clinician's central job in implementation as defining, refining, teaching and learning a specific guideline using a variety of traditional and recently developed methods.

Slides 3 + 4

STUDIES OF CPG LOGIC (Slide 1)

- CAN WE DECREASE VARIATION IN CLINICAL LOGIC/ACTION?
 Map Approaches to Clin Problems?
 Decrease Logic Errors in Clin Approach?
 Will clinicians follow the guideline?
- CAN GUIDELINE/ALGORITHMS TEACH MORE EFFECTIVELY THAN PROSE (Margolis, 1992)
- CAN CAs DIAGNOSE ACCURATELY?

Defining the answers to another set of questions, such as „what is the quality of a product?“ (e.g. health); „how does one define a work process?“ (e.g. a clinical work process); „who is the health care customer?“ (e.g. the patient); „what team provides health care?“ has enabled us to define six steps that constitute the guideline implementation cycle. These are:

1. Define the clinical work problem;
2. Define the process;
3. Define the design faults and develop design supports to prevent the faults;
4. Write an implementation plan;
5. Write an evaluation plan;
6. Pilot.

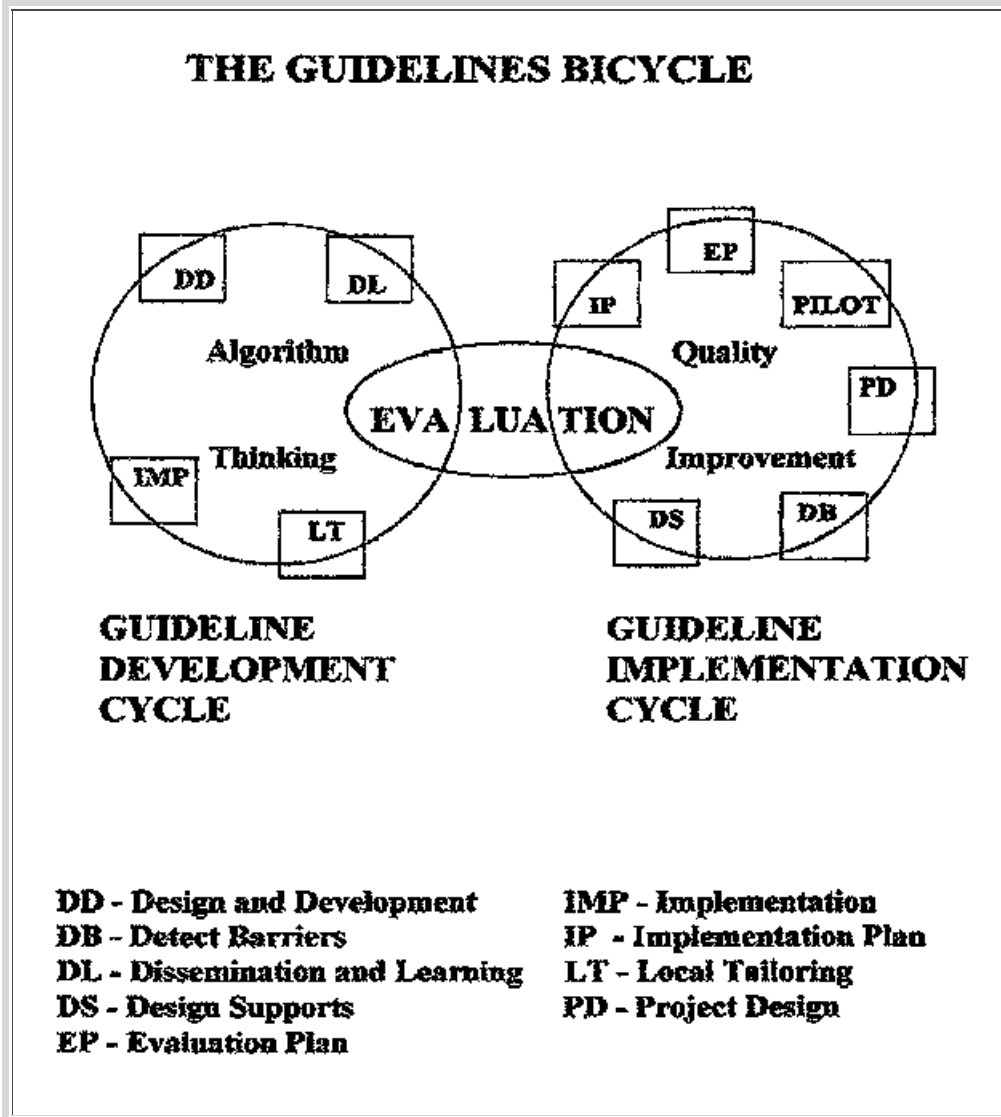
These steps enable us to define the non-clinician's central job as defining and improving the non-clinical infrastructure of patient care.

STUDIES OF CPG LOGIC (Slide 2)

- CAN WE REDUCE

- CLINICAL RESEARCH VARIATION? (Lorenz, 1996)
- HOW MUCH VARIATION IN GUIDELINE CONSTRUCTION (Pearson, 1992)
 - Between competing guidelines (Barak)
 - Between global and local guidelines (Wabitsch, 1993)

Slide 5



From the perspective of clinical decision making, guideline development, centered around evidence-based, precise, clear clinical algorithms enables the clinician to make a rational decision appropriate for a specific patient. From the perspective of effective work, guideline implementation, centered around QI techniques, gets the guideline operationalized and the patient cared for. When linking by ongoing evaluation that enables continuous improvement of guideline development and implementation, both cycles make the guideline bi-cycle run.