

* **How to make
cardiology nurses
to adhere to ESC guidelines?**

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cardiology nurse, who always adheres to all guidelines...

Drafting a program aimed at:

- * familiarizing cardiology nurses with the presence of the ESC guidelines
- * realizing them the value of the guidelines
- * increasing the fraction of nurses, who consciously adhere to the guidelines in their everyday practices

* **Objective**



***Solution**

* Education

* Motivation

* Usability

* **Solution**

Evidence-based vs. Eminence-based Medicine...

- * Where do the guidelines originate from and how are they developed?
- * Basic terms associated with the evidence-based medicine
- * Gradation of scientific evidence
- * Superiority of scientific evidence over an anecdotal evidence

* **Education**

Evidence-based Medicine

making decisions about the care of individual patients on the basis of conscientious, explicit and judicious use of current best evidence:

- * results of experimental trials
- * results of observational studies
- * secondary resources:
 - * systematic reviews
 - * meta-analyses

* **Education**

Gradation of scientific evidence

Evidence from	Level of recommendation
<ul style="list-style-type: none">• Multicenter randomized controlled trial	Very high
<ul style="list-style-type: none">• Single center randomized controlled trial• Meta-analysis• Systematic review	High

 **Education**

Gradation of scientific evidence

Evidence from	Level of recommendation
<ul style="list-style-type: none">• Prospective non-randomized study• Case-control study	Moderate
<ul style="list-style-type: none">• Case series	Rather low
<ul style="list-style-type: none">• Individual case reports	Low
<ul style="list-style-type: none">•
<ul style="list-style-type: none">• Anecdotal knowledge	???

 **Education**

Flaws of anecdotal evidence

- * Insufficient statistical power of a sample
- * Lack of randomization
- * Lack of standardization
- * Confounders
- * Non-scientific determinants

* **Education**

Soft instruments, i.e. stimulating one's ego...

- * Nurses adhere to guidelines more often than physicians:

- * Voogdt-Pruis HR et al. *Int. J. Nurs. Stud.* 2011; 48: 798-807

- * Campbell NC et al. *Heart* 1998; 80: 447-452

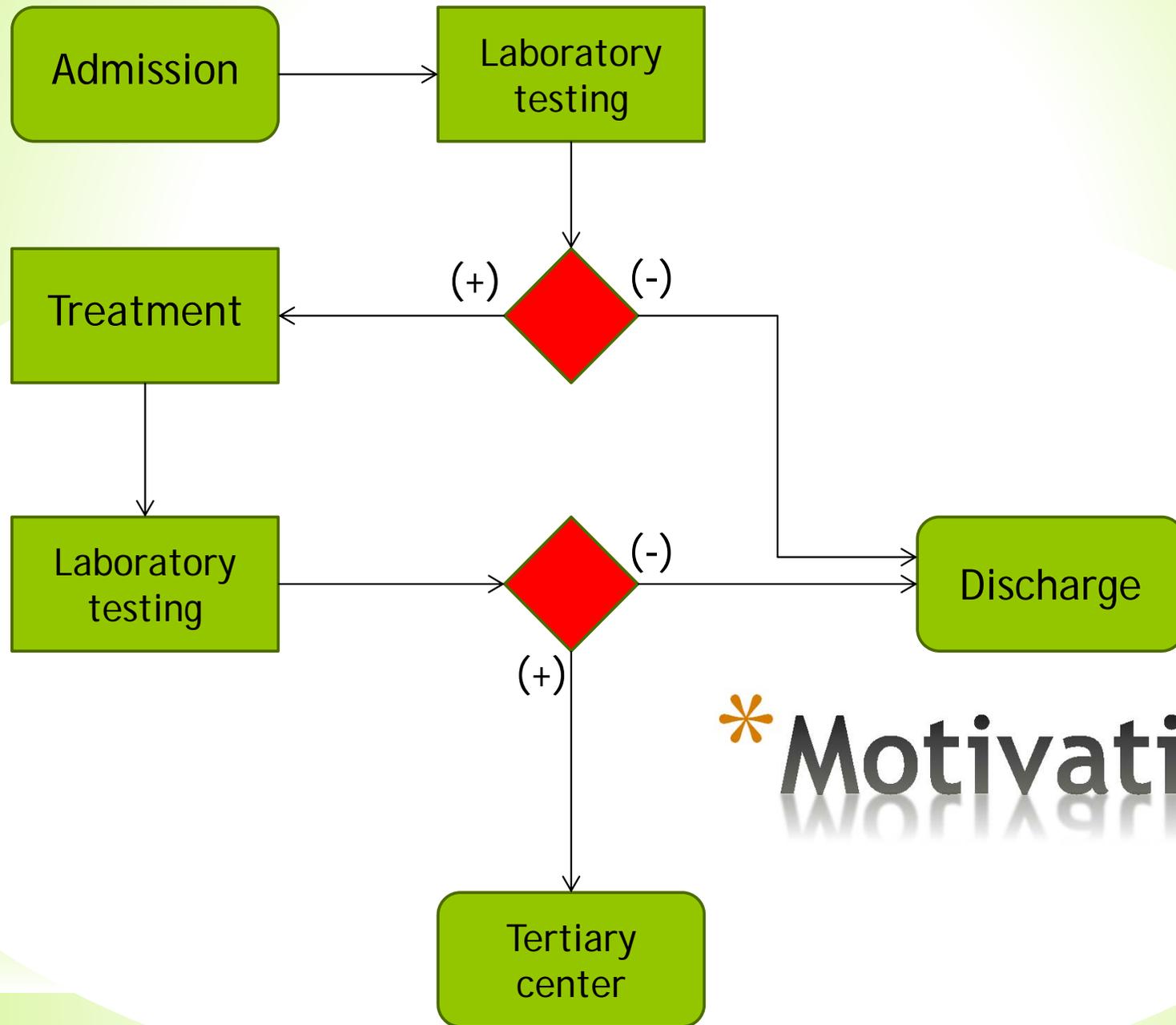
- * adherence to guidelines as a component of Good Nursing Practice (GNP)

* **Motivation**

Hard instruments, i.e. stick and carrot...

- * Benchmarking from industry
- * Mapping of therapeutic process
- * Identification of Critical Control Points (CCPs)
- * Control procedures for CCPs
- * Monitoring and immediate control of CCPs

* **Motivation**



* **Motivation**

Critical Control Points

- * Point where failure of standard operation procedure could cause harm to customers and to the business, or even loss of the business itself
- * Failure - non-adherence to the ESC guidelines
- * HACCP methodology
(Hazard Analysis and Critical Control Points)

* **Motivation**

Principles of HACCP

- * Conduct a hazard analysis
- * Identify CCPs
- * Establish critical limits for each CCP
- * Establish CCP monitoring requirements
- * Establish corrective actions
- * Establish validation and record keeping procedures

* **Motivation**

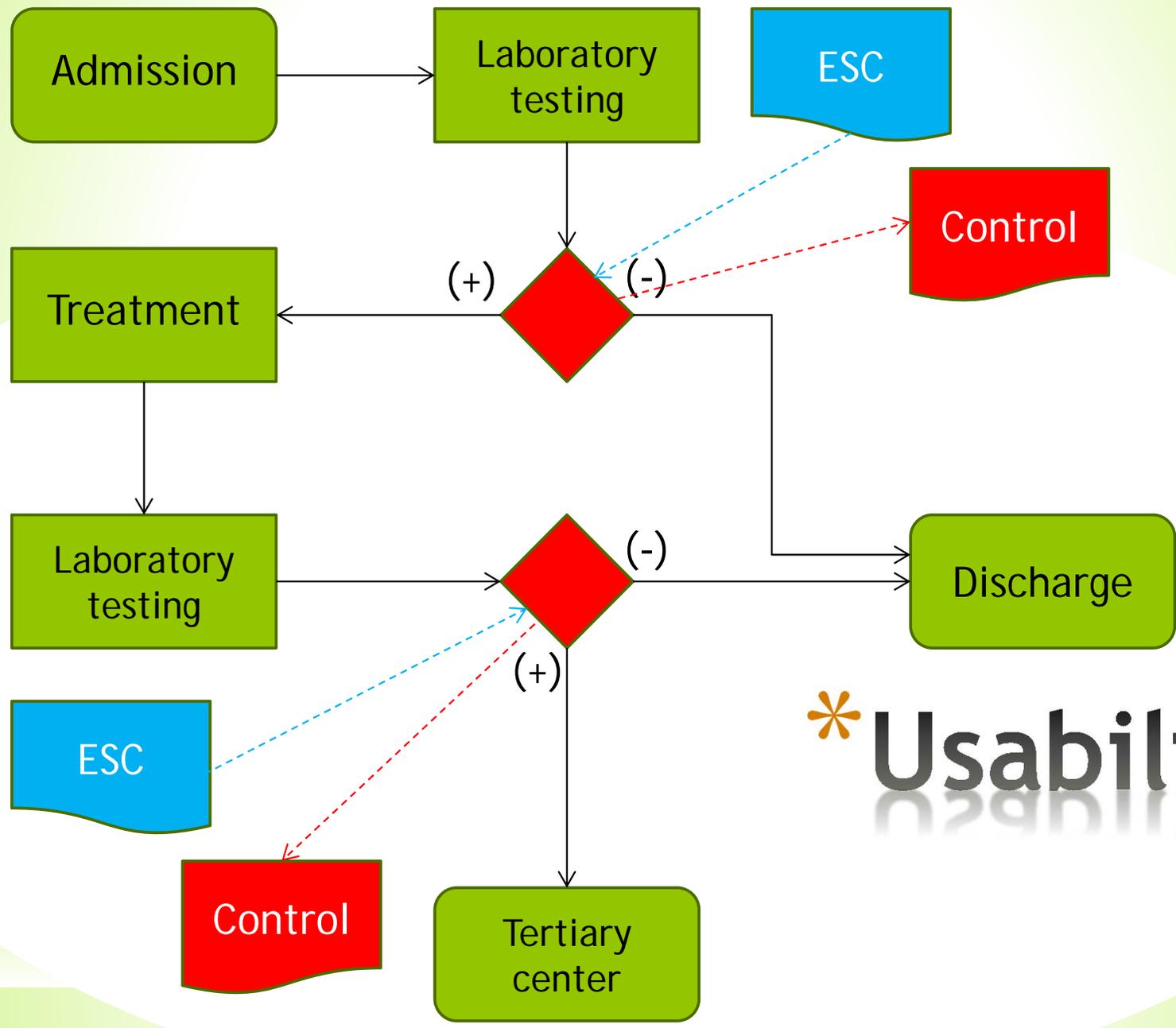
Medical HACCP - challenges

- * Mapping of processes covered by the guidelines - *which, how precisely???*
- * Establishing critical limits - *YES vs. NO???*
- * Establishing validation, monitoring and record keeping procedures - *documentation in patient's history???*
- * Lack of immediate corrective measures - *lessons to be learned, motivation system???*

* **Motivation**

- * Establishing simple decision tools for each CCP
- * Graphic/electronic algorithms based on the process maps
- * Advantage: the same tool can be used for monitoring/immediate control of a given CCP

* **Usability**



* Usability

Future activities

- * Putting emphasis on evidence-based education of nurses
- * Identification of therapeutic processes, which should and could be mapped, and establishing their CCPs
- * Creation of graphic/electronic algorithms based on the ESC guidelines
- * Publication of hereby proposed model

* **Conclusion**