STREP project funded by the Future and Emerging Technologies arm of the IST programme FET Open scheme

\* Total cost and Community funding: ¤ 1,67 million with an EC contribution of ¤ 1,48 million

\* Project start and duration: January 1st 2004, with a duration of 30 months

Departament d'Enginyeria i Ciència

O Protocure

Integrating formal methods in the development process of medical guidelines and protocols

PROTOCURE II - IST-FP6-508794

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Spain

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# Objectives

Support guidelines developers in the health-care profession in the construction and maintenance of high-quality and up-to-date living guidelines and protocols.

# Work packages & tasks

#### I. Process model

Elaborate a new model for a rigorous guideline development process

### II. Development-Modelling

Select a reference guideline Define adequate representation formats for (informal and formal) guidelines Facilitate the modelling of guidelines

## III. Development-Validation/Testing

Facilitate the validation of guidelines with the support of an interpreter

Study adequate techniques to the validation/testing of guidelines, and apply them to the reference guideline

#### **IV.** Development-Verification

Facilitate the rigorous verification of guidelines using theorem proving and model-checking Apply these techniques to the verification of selected properties in the reference guideline

### V. Deployment

Provide basic support for the deployment of medical guidelines

#### VI. Maintenance

Ease the validation and verification of continously evolving medical guidelines

# Expected results

1. A prescriptive process model for the integrated and iterative development of formal and informal versions of guidelines

2. A set of software tools which supports this development process

3. A library of guideline components, in the form of re-usable patterns

4. A demonstration guideline, which has been developed according to the above expected results

# Participants

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