

# EXPERT SYSTEM FOR THE AID OF URODYNAMIC DIAGNOSTICS

**P** PATENTED TECHNOLOGY



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## ABSTRACT

The application of the artificial intelligence in different contexts (industrialist, computer science, biological, etc.) this demonstrating that it is a very useful tool.

In the field of the medicine, the expert systems begin to be used to attend the doctor in the clinical diagnostics. A great percentage of urodynamic registries exist where the urologist cannot obtain a clear diagnosis and must make a series of more specific and complicated tests.

The expert system that we are developing allows helping to the urologist in the diagnostic from An initial questionnaire that is asked the patient who fills up it. If the diagnostic is ambiguous, the urologist will have to make a basic urodynamic study. From the new data that are obtained, the expert system and the urologist they have more information to make the diagnostic. Of this form the number of tests is reduced, the treatment of the patient improves and times and expenses are reduced.

## ADVANTAGES AND INNOVATIVE ASPECTS

### MAIN ADVANTAGES

The urodynamic diagnosis with the help of an expert system contributes the following advantages:

- It reduces the number of tests that urologist makes the patient.
- It increases the comfort of the patient.
- The overcrowding of the hospitals diminishes.
- It reduces the time of doctor dedicated to makes the urodynamics studies.
- It reduces economic expenses to the hospitals.

### INNOVATIVE ASPECTS

The system to develop contributes like main innovating aspect orienting to the doctor in a possible diagnostics making the smaller number of tests. Of this form, the patient suffers less possible and a time and a cost of unnecessary resources are saved.

## MARKET APPLICATIONS

The expert system is applied in urology to help the doctor to make diagnostics.

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COLLABORATION SOUGHT

Company dedicated to the development, programming and sale of medical equipment.

Tasks:

- To provide medical information: urodynamic data are needed to make a first prototype.
  - To provide infrastructure resources as well as financial resources to make tests.
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