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## ***The Web-Integration of a Decision Support System Tools for Medical Diagnosis \****

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#13 – Decision support system

## **THE WEB INTEGRATION OF A DECISION SUPPORT SYSTEM TOOLS FOR CLINICAL APPLICATIONS**

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**Introduction:** The need for effective and efficient exchange of clinical knowledge is increasing. In this context, we will focus on the web-clinical activity and on ways to improve the quality of the exchanging the health information.

**Methods:** The challenge of this work is to provide secure, remote access to decision support tools and a standard framework for the exchange of health information over inexpensive Internet communication pathways using web-based technologies. At beginning of our development we have used the acute leukemia disease as illustration. For this purpose, we recently developed a new fuzzy classification method called *PROAFTN* to help medical diagnosis.

**Results:** The results obtained by the *PROAFTN* method on acute leukemia show a good efficacy of this procedure. In this context, we will integrate the *PROAFTN* method and develop a web-based clinical database system using standard JSP, JavaBean, servlet, and XML technologies. The developed system will help to: (a) make online diagnosis and to compare its performances with human practitioners of medicine; (b) implement a platform neutral XML framework for the electronic exchange of hematological data between physicians, hematologists and Biologists-hematologists (c) assist online learning and simulation for training practitioners (d) provide a secure environment to ensure that health data transactions can occur with trust, confidentiality and integrity.

**Conclusion:** By using the proposed system, the physicians will be able to exchange the information with the biologist-hematologists. This will aid them in making more informed

and objective life decisions in real time. In the next step, we will extend this system to other types of pathologies.