

ABSTRACT

Lia Permata Sari, 2013. *Expert System for Diagnose Pneumonia Community Using Forward Chaining Based Port Score Data.* Information Technology and Computer Science Program, Brawijaya University, Malang. Advisor : Suprpto,S.T.,M.T. and Aswin Suharsono,S.T.,M.T.

Lower respiratory tract infection remains as major problem in the health sector, both in developed and advanced countries, one of those major problems is pneumonia. Pneumonia that often occur in society is Community-Acquired Pneumonia (CAP) caused by gram-positive and atypical bacteria. Expert system of Community-Acquired Pneumonia is designed to give fast and accurate diagnosis result so the doctor do not need to perform manual calculations. The method produce a diagnosis of CAP is calculated by PORT Score consists of 3 factors: demographics, physical examination and the results of lab / radiology. Beside using the PORT Score, in this expert systems also using Forward Chaining in terms of search techniques. Requirement Analysis of the this system is implemented by analyzing the DFD (Data Flow Diagram) and PHP is used as system programming language PHP.

System functionality test using black-box testing method, the test use 15 activities. The test result shown that the system's functionality has met the requirements described in the requirement analysis phase. System accuracy test from 30 test data shown that the system's accuracy is 100%.

Keyword: *expert system, community-acquired pneumonia , forward chaining*