

CLINICAL INTEREST IN THE IMPLEMENTATION OF A FUNCTIONAL PROTEIN C ASSAY IN A LABORATORIAL ROUTINE

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The use of Recombinant Human Activated Protein C (rhAPC) to treat septic patients is becoming more and more used in the intensive care units (ICU). Some recent works shows up the value of the Functional Protein C (FPC) test as a prognostic marker in severe sepsis. In a recent study carried out in our ICU, FPC monitoring was performed in 15 patients undergoing treatment with rhAPC. It was concluded that to monitor FPC, can be a useful help to decide the starting of treatment with rhAPC and evaluate continuously septic patients undergoing this therapeutics. We found a statically significant relation between the rise to the normal levels of baseline FPC and their clinical improvement. The Service of Imunohemoteraphy of the HPA VS SA is a Service that fulfils the requisites of the standard NP EN ISO 9001:2000 having obtained Certificate of conformity in March of 2006. After carrying out a plan of action, the introduction in the laboratorial routine of FPC test was executed in 3 phases. The plan of action was unchained by a formal request from the director of the ICU who was intending to carry out a study of the morbidity and prognostic in septic patients. The 1st phase consisted on a temporary implementation limited to 3 months. In this phase the sample was frozen and prosecuted thereafter. In the end of temporary implementation (2nd phase) data was analysed relatively to 65 patients who entered in the study. The test was not only useful as a prognostic marker but also an important tool in the decision, evaluation and monitoring of the severe septic patients who were submitted to the treatment with rhAPC. This usefulness was only justified however if the access to the results was immediate. The 3rd phase understood the implementation of the test in the laboratorial routine with the processing and immediate realization of the test. This step brought evaluation of costs, having calculated the average number of patients / year, the average number of tests by patient and subsequent approval of the pharmaceutical commission and hospital administration. Tests were performed with IL Test Protein C. Since January of 2006, the date when the routine started, we monitored 50 patients, which correspond to a total of 115 tests, to an average of 2.3 tests per patient. Concluding we can say that the realization of FPC test was introduced in 3 distinct phases in the laboratorial routine. This implementation has given an improvement in clinical evaluation of critical septic patients since its results can support decision to start and monitor treatment with rhAPC apart from its important prognostic value.