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QIAS: an evolutionary system for e new UPDRS computerized interpretation

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Introduction: Construction of an advanced computerized post-analysis system of the UPDRS test for a new interpretation based on the transformation from an exclusively quantitative test into an Analytical / Quantitative test

Objective: Given that Parkinson's disease is one of the most complex and polymorphic diseases of the nervous system in its various clinical manifestations, our working group has set itself the goal of building an innovative tool to help physicians in the management of Parkinson's disease (PD) and which is to provide specialists in the field:
• a tool for a qualitative and quantitative analysis of the disease
• a tool capable of giving an exhaustive follow-up on the progress of the disease.

Description: The starting idea was to create an innovative software able to provide a valid help to the doctor in the management of Parkinson's disease (PD).
It was therefore decided to start from the international evaluation scale of Parkinson's disease, called UPDRS, and to start by evaluating the criticality of this, also very valid, analysis tool.
The criticality in UPDRS, in our opinion, consists in the fact that it, as formulated, is an investigation tool of mere value in consideration of how much, as in the test one has an absolute vision, it is possible to have a global vision, it is possible to have an equally vision of the disease but not an overall and at the same time fragmentary vision of the various and complex facets that are inherent in Parkinson's disease. How can this be achieved?
Build automatic Parkinson's disease management software that was simple to manage and always accessible at anytime and anywhere the doctor was.
In addition, the software should have been able to have the doctor manage Parkinson's disease in less time than the paper analysis.
Given the goals we set ourselves, we were able to build software that can be used via the web through today's means of communication such as, for example, a PC, a tablet, a smartphone and so on. All this, moreover, without having the doctors need to install any application system on their machines but only having the possibility to access, through their own applications, the software installed on a remote web platform with a simple login operation.
The main features of the software are:
- Guided compilation of the UPDRS forms, transformed into electronic format for the evaluation of the PD
- Analysis and automatic generation of evaluation charts of the same, divided in turn into the various sub-areas of which the UPDRS is composed
- Comparison evaluation between cards of different dates
- Access to historical data

Software utility
For the doctor:
- Analysis tool
- Archiving system

For the team managing the program
- Data acquisition tool
- Sample data analysis tool
- Other uses

It should be noted here that the coordination team would manage in real time the analysis data provided by the doctors participating in the network in a completely anonymous way and with full respect for the privacy of both the doctors of the network that would be created and the patients they assist.

Conclusions: In conclusion, we believe that the software developed by our group, which we have called QIAS (Quality Illness Analysis System), is a very useful and truly innovative tool as, in addition to being useful for specialists who are interested in Parkinson's, it could constitute an idea forerunner for the transformation of most of the evaluation scales from quantitative to qualitative of almost all the diseases that these scales use in the various branches of medicine in general for a more rational identification and evaluation of the same.
Finally, we would like to point out that apps are being designed to be used by patients themselves on their personal application tools even from their own home to communicate at a distance to their treating doctors the inevitable transformation of the history of their diseases both in the sense of improvement and in the sense of a worsening, thus being able to be included in the broader field of telemedicine.