

Self Management of Anticoagulation with the INRatio system: Impact of a structured teaching program on the knowledge level

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Self management of oral anticoagulation (OAC) supports decreasing complication rates and improves quality of life. Manual and cognitive abilities of patients and patient training in a structured format are preconditional for this concept. Up to now, there is no evidence about knowledge increase and the need of update sessions.

Method:

Within clinical evaluation of the new coagulation monitor INRatio (Hemosense) we include 76 patients (age: 57,4, sex: 71% male) who started longterm OAC. The patients were trained in a structured education program on 2 days/week. For evaluation of the outcome, patients took standardized tests including 16 questions prior to the start (T0), after each training unit (T1/T2) and after six weeks (T3). The primary endpoint was defined as 75% of patients had to answer $\geq 50\%$ of the questions correctly at T3 after six weeks (one-sided binominaltest, $\alpha = 0,05$). Secondary endpoints were the number of correct answers on every session and the percentage of correct answers per question. Additionally, the teaching program was judged by the patients (rank 1-6).

Results:

74 out of 76 patients gave at least 50% correct answers in T3 (97,4% [95% CI: 90,8-99,7%]). The tests showed that in T0 40%, in T1 86%, in T2 94% and after six weeks, 96 % of patients gave correct answers. An impressive increase of knowledge was recorded for issues such as blood components, interpretation of INR-value, and the interaction of anticoagulation with other variables (e.g.drugs or infection). The teaching program was evaluated at all measuring times with grades between 1 and 2. In T3 patients felt less fear for complications and less limited in their daily life.

Conclusion:

The structured training program INRatio appears to be an appropriate instrument for instruction of INR self management. Compared to the knowledge in T0, the number of correctly answered questions is twice as high over the course of the training (T1/T2) and stays on a high level of >90% even after six weeks (T3).