9[™] MULTIDISCIPLINARY INTERNATIONAL Conference of Biological Psychiatry

«Stress and Behavior»

Proceedings of the 9th International Multidisciplinary Conference «Stress and behavior» Saint-Petersburg, Russia, 16–19 May 2005 Editor: Allan V. Kalueff, PhD

CONFERENCE ABSTRACTS

3. EPILEPSY

ECONOMICS IN EPILEPSY RESEARCH: COST-EFFECTIVENESS OF ANCILLARY TESTS IN DIAGNOSTICS OF TRANSIENT LOSS OF CONSCIOUSNESS

N.A. Zinevych, K.K. Martikainen, K. Seppa, P.M. Viita, S.A. Rajala, T.O. Keranen University of Tampere, Health Center of the City of Tampere, Tampere University Hospital, Tampere City Hospital, Tampere, Finland

Time-consuming and expensive ancillary tests (AT) are commonly used to diagnose transient loss of consciousness (LOC). Since these tests may have low diagnostic yield, a better knowledge of the costs and outcomes is necessary to ensure efficient resource allocation for LOC diagnostics and therapy. Here we performed cost and cost-effectiveness analysis of diagnostic strategies in patients with syncope (SC, n = 39), seizure (S, n = 51) and uncertain types (UT, n = 76) of LOC. We also compared clinical (Martikainen et al., 2003) and economical effectiveness of these strategies. A 24-month prospective study was carried out on 166 patients (77 men, 89 women, 15+ y.o.) at Primary Health Care neurology and internal medicine service of Tampere (1999–2001 rr.). The economic analysis was conducted from the societal perspective, comprising direct (medical and non-medical) and indirect (loss of productivity) costs, calculated based on the existing hospital and market prices and published sources. Other necessary information was extracted from the patients' records. Costs and effectiveness (percent of corrected diagnoses) of diagnostic strategy with and without AT were analyzed in this study. The effectiveness for the strategy without AT was 69% (SC) vs. 57% (S) and 93% (UT). In contrast, with AT this index was 70% (SC) vs. 62% (S) and 68% (UT). Cost per patient for the strategy without AT was 630 (SC), 860 (S) and 640 (UT) euro. In contrast, using AT, this index was 910 (SC) vs. 890 (S) and 950 (UT) euro. Our results also show that incremental cost-effectiveness ratio (the difference in costs between these two strategies divided by the difference in their effectiveness) is 28560 (SC) vs. 700 (S) and -1240 (UT) euro per corrected diagnoses. In general, our study suggests that in patients with UT type of LOC, AT may have both low diagnostic yield and low cost-effectiveness.