Evaluation of pharmacoeconomic interventions in neurological patients treated with immunoglobulins

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BACKGROUND

Intravenous immunoglobulins (IVIG) are used in various neurological diseases, sometimes off-label and with different evidence. High treatment costs, the worldwide shortage of IVIG and the special requirements of the German reimbursement system are challenging for clinical pharmacists in controlling the rational use of IVIG.

PURPOSE

The aim of this work is to capture the economic benefit of pharmacists’ interventions under consideration of the German reimbursement system.

METHOD

- **Cohort:** 120 patients treated with IVIG in 464 cycles
- **Observation period:** From January 2011 to August 2013
- **Monocenter:** At University Medical Center Hamburg-Eppendorf, Department of Neurology
- **Assessment:** Data were taken from a Computerized Physician Order Entry (ATCHost®, Baxter) and an electronic patient record system (Soarian®, Siemens) and an electronic patient record system (Soarian®, Siemens)
- **Analysis of data:** Retrospective analysis of savings, proceeds and decreased length of stay due to all measures shown in figure 2

RESULTS

Effects of clinical pharmacists’ interventions (classified in figure 3):

- 368,128 € cost-cutting under consideration of official data (A)
- 334 days decreased length of stay corresponds to 120,510 € (B)
- Overall this sums up to an amount of 488,638 € (C)
- 4,080 € statistical cost savings per patient

DISCUSSION

To our knowledge this is the first report about the economic benefit of clinical pharmacists’ interventions in IVIG-therapy in neurology. This method can be used in future for other drugs with high treatment costs or with special terms of reimbursement. Main deficiency of this method is, that the economic benefit of decreased length of stay is only calculated. However, the biggest savings were achieved by selection of IVIG, interventions to dose and duration of treatment and documentation to ensure best possible proceeds. Based on these results it is important to integrate clinical pharmacists in daily routine on neurological wards.

CONCLUSION

Clinical pharmacists should be well integrated in daily clinical practice of neurological wards in order to reduce costs, decrease length of stay and increase proceeds.