INTRODUCTION

CORDIVA is real life eHealth programme for heart failure (HF) patients provided by Gesellschaft für Patientenhilfe DGP mbH (GPH) on behalf of three major German health plans. In Germany, it currently cares nationwide for 11,000 patients, more than 26,000 have participated so far. The main objectives are reduction of all-cause mortality and hospitalization, reduction of total medical expenditures and improvement of the patient’s quality of life.

The technological backbone of CORDIVA is a modular IT platform, which was developed by GPH. CORDIVA comprises the following components:

- Patient education and training in order to strengthen self-care
- Remote monitoring to detect worsening of disease at particularly early stage enabling early intervention
- Facilitated patient screening and follow-up by IT integration into existing pathways

Stratification to personalize care

The programme is delivering personalized care by configuring individual health care pathways based on adaptive rule sets. Two-stage stratification is tailoring the delivery of care:

Clinical stratification to estimate the individual risk for hospitalization and death, which involves parameters such as current state of health, medical history and findings of diagnostic imaging procedures

Psycho-social stratification in order to reveal personal resources, which is based on an assessment of motivation, attitude and behaviour, coping, cognitive fitness, depression and anxiety

PRELIMINARY RESULTS

Repetitive evaluations of effectiveness were done together with the German health plans as basis for a performance related compensation. Based on elementary control, results indicate that CORDIVA may continuously reduce all cause hospitalization by up to 40%, almost halve mortality and decrease total health care cost by up to 20%.

PLANNED COMPREHENSIVE EVALUATION

In 2014, a comprehensive, scientific, retrospective evaluating of benefits and effectiveness of CORDIVA involving about 16,000 Bavarian programme participants since 2006 will take place. This collaborative effort shall also provide the basis for developing a framework for practical implementation and scientific publications. The project consortium consists of the

- Helmholtz Institut, Munich
- Ludwig-Maximilians-Universität, Munich
- AOK Bayern – Die Gesundheitskasse, Munich
- GPH, Munich

Compared with an untreated control group the programme effects will be estimated by accounting for a whole range of covariates using propensity score matching. The clinical evaluation is aiming to show effectiveness with respect to mortality, hospitalization rate, concomitant diseases, medication treatment, quality of life, programme acceptance and CORDIVA interventions. Moreover, a health economic evaluation will evaluate health care costs, cost components and cost drivers, and assess cost-effectiveness as well as cost-utility, the latter referring to Quality Adjusted Life Years as outcome parameter.

EUROPEAN ACTIVITIES

In May 2013, CORDIVA has started in Toulouse, which was initiated by the Toulouse University. In summer 2013, the programme was extended to Paris introducing biomarker (BNP) home monitoring. In both sites the setting of a randomized controlled trial was chosen.

SUMMARY

CORDIVA is an almost unique example of an practically implemented, self-sustaining eHealth programme supporting many thousands of patients, who suffer from HF. Constantly reviewed by its customers regarding its performance, CORDIVA’s growing utilization shows that physicians and patients choose for this programme. However, an independent scientific evaluation will soon provide deeper insights into CORDIVA’s effectiveness, cost-effectiveness, and the key parameter these are based on.