## August 2010

**Die aktuelle Cochrane-Analyse zum Thema Telemedizin bei chronischer Herzinsuffizienz schließt die eigenen Untersuchungen aus 2007 als weltweit größte und bisher einzige kontrollierte Studie aus Deutschland ein:**


**Kielblock 2007** *{published and unpublished data}*

Blasius M. P4874 Impact of telemetric management on overall treatment costs and mortality rate among patients with chronic heart failure. *European Heart Journal* 2008;**29**(Suppl 1):856.

Kielblock B, Frye Ch, Kottmair S, Hudler T, Siegmund-Schultze E, Middeke M. Impact of telemetric management on overall treatment costs and mortality rate among patients with chronic heart failure [Einfluss einer telemedizinisch unterstützten Betreuung auf Gesamtbehandlungskosten und Mortalität bei chronischer Herzinsuffizienz]. *Deutsche Medizinische Wochenschrift* 2007;**132**(9):417–22.


**Structured telephone support or telemonitoring programmes for patients with chronic heart failure (Review)**


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## ABSTRACT

### Background

Specialised disease management programmes for chronic heart failure (CHF) improve survival, quality of life and reduce healthcare utilisation. The overall efficacy of structured telephone support or telemonitoring as an individual component of a CHF disease management strategy remains inconclusive.

### Objectives

To review randomised controlled trials (RCTs) of structured telephone support or telemonitoring compared to standard practice for patients with CHF in order to quantify the effects of these interventions over and above usual care for these patients.

### Search strategy

Databases (the Cochrane Central Register of Controlled Trials (CENTRAL), Database of Abstracts of Reviews of Effects (DARE) and Health Technology Assessment Database (HTA) on *The Cochrane Library,* MEDLINE, EMBASE, CINAHL, AMED and Science Citation Index Expanded and Conference Citation Index on ISI Web of Knowledge) and various search engines were searched from 2006 to November 2008 to update a previously published non-Cochrane review. Bibliographies of relevant studies and systematic reviews and abstract conference proceedings were handsearched. No language limits were applied.

### Selection criteria

Only peer reviewed, published RCTs comparing structured telephone support or telemonitoring to usual care of CHF patients were included. Unpublished abstract data was included in sensitivity analyses. The intervention or usual care could not include a home visit or more than the usual (four to six weeks) clinic follow-up.

### Data collection and analysis

Data were presented as risk ratio (RR) with 95% confidence intervals (CI). Primary outcomes included all-cause mortality, all-cause and CHF-related hospitalisations which were meta-analysed using fixed effects models. Other outcomes included length of stay, quality of life, acceptability and cost and these were described and tabulated.

### Main results

Twenty-five studies and five published abstracts were included. Of the 25 full peer-reviewed studies meta-analysed, 16 evaluated structured telephone support (5613 participants), 11 evaluated telemonitoring (2710 participants), and two tested both interventions (included in counts). Telemonitoring reduced all-cause mortality (RR 0.66, 95% CI 0.54 to 0.81, $P < 0.0001$) with structured telephone support demonstrating a non-significant positive effect (RR 0.88, 95% CI 0.76 to 1.01, $P = 0.08$). Both structured telephone support (RR 0.77, 95% CI 0.68 to 0.87, $P < 0.0001$) and telemonitoring (RR 0.79, 95% CI 0.67 to 0.94, $P = 0.008$) reduced CHF-related hospitalisations. For both interventions, several studies improved quality of life, reduced healthcare costs and were acceptable to patients. Improvements in prescribing, patient knowledge and self-care, and New York Heart Association (NYHA) functional class were observed.

### Authors' conclusions

Structured telephone support and telemonitoring are effective in reducing the risk of all-cause mortality and CHF-related hospitalisations in patients with CHF; they improve quality of life, reduce costs, and evidence-based prescribing.

Eine ausgewählte Abbildung zur Gesamtsterblichkeit:

**Analysis 1.6. Comparison 1 Impact of structured telephone support and telemonitoring in CHF on all-cause mortality, Outcome 6 Sensitivity analysis (full peer-reviewed publications only), follow-up period (>6 months), all-cause mortality: telemonitoring vs usual care.**

Review: Structured telephone support or telemonitoring programmes for patients with chronic heart failure

Comparison: 1 Impact of structured telephone support and telemonitoring in CHF on all-cause mortality

Outcome: 6 Sensitivity analysis (full peer-reviewed publications only), follow-up period (>6 months), all-cause mortality: telemonitoring vs usual care