

### **133: Components and effectiveness of integrated care programs for hospital patients**

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#### **Objective:**

To validate the assumption that integrated care programs are effective, and to extract commonly used components of these programs designed for hospital patients.

#### **Methods:**

Literature searches were conducted in Medline and Cochrane databases to identify papers that reported on systematic reviews of integrated care programs. Medline was searched from 1996 through October 2003 with publication type review. Review articles were screened by two reviewers and subsequently included on the basis of the following five criteria. First, the review was performed systematically. Second, the scope of the review concerned managed care programs. Third, because we were not interested in the effect of separate interventions we only included programs that consisted of more than one intervention. Fourth, the programs focussed on adult patients in all conditions with the exceptions of AIDS patients, mental illnesses, addictions and midwifery. Fifth, the setting was within the hospital, outpatient clinics or both. Titles and abstracts of articles were primarily reviewed for relevance based on the inclusion criteria, and if potentially relevant, the full-text article was retrieved. Reference lists of included studies were also searched. Two independent reviewers screened the final selection of papers for quality.

#### **Results:**

More than 1500 citations were identified. The initial search based on title and abstract produced 350 papers which were suggested to be of relevance. Two reviewers independently reviewed these studies and 34 full text versions of the papers were obtained. We excluded 22 of the 34 studies after detailed evaluation: 9 were not systematically performed reviews, 9 involved only one intervention instead of programs, 2 were about shared care, 1 was not performed in the defined setting and 1 was a pharmacological review. In total, 12 papers met all the inclusion criteria and were assessed on methodological quality.

Reviews about integrated care programs mainly date from the year 2000 (10 out of 12). The reviews which were included concerned the following patient groups: patients with heart failure (5 papers), patients with diabetes mellitus (2 papers), patients with rheumatoid arthritis, patients with coronary heart disease, patients with stroke, patients with chronic obstructive pulmonary diseases and patients with chronic illnesses in general.

Despite considerable heterogeneity among the reviews, the interventions performed, patient populations and measured processes and outcomes of care, there was a striking consistency between the studies demonstrating favourable effects of the programs. Positive effects were reported in the areas of hospital utilisation, quality of life, functional health, patient satisfaction and process outcomes. Effects on mortality remained unclear and effects on costs were too infrequently assessed to draw conclusions. The aims of the integrated or managed care programs were nearly the same in all reviews, namely reducing fragmentation and improving continuity and coordination, however the focus and content of the programs varied greatly. The most commonly found components of integrated care programs were self-management support and patient education, often described in relation to structured clinical follow-up and case management; a multidisciplinary patient care team; multidisciplinary clinical pathways and feedback, reminders and education.

#### **Conclusions:**

Integrated or managed care programs have a positive effect on the quality of patient care. Although the content and focus of the programs differ, there are some commonly used interventions. Still there is much uncertainty about the optimal mix of interventions, their frequency and duration, and their cost effectiveness. A challenging task for future research will be to evaluate the effectiveness of multi-component integrated care programs. These programs should at least consist of a professional intervention, an organizational intervention and a patient-related intervention to support self-management.