Summary
Screening is advocated to improve the recognition of patients with major depression in primary care. Furthermore, disease management programmes are advocated to improve the quality of care and outcome for these patients. But is screening and the subsequent implementation of a disease management programme more effective than care-as-usual? This question is addressed to in chapter 2 in which a review of the literature is performed on the effects of disease management programmes that include screening for major depression in general practice. Six randomised controlled trials were identified in which the effectiveness of disease management programmes were studied in patients with major depression in primary care and compared to care-as-usual. The majority of these, and especially the largest showed positive effects on the recognition, diagnosis, treatment and outcome of patients. Populations in the USA seem to benefit most. The results of disease management programmes for depression in primary care that include screening are positive and are more effective than care-as-usual. Therefore, it is concluded that in the scope of the improving treatment results, if preceded by screening attention to the whole process of care for patients with major depression instead of paying attention to isolated elements of the process, is justified.

Depression is a common and important disorder in later life. Yet, there are concerns about the recognition and treatment of patients with major depressive disorder in general practice. Interventions incorporated in disease management programmes and aimed to improve screening, diagnosis and treatment, might be of benefit for the outcome of elderly patients. In chapter 3 the design and feasibility of the West Friesland Study (WFS) are presented. The WFS is a randomised trial performed in the Netherlands that compared the effects of an intervention programme aiming to improve the recognition, diagnosis and treatment of depression in elderly patients with care-as-usual. The 15-item version of the Geriatric Depression Scale (GDS-15) was used for screening and the mood-module of the PRIMary care Evaluation of Mental Disorders (PRIME-MD) was used for diagnosis.
In total 43 GPs from 34 practices were willing to participate. Eighteen practices (23 GPs) were allocated to the intervention group and 16 practices (20 GPs) were allocated to the care as usual group. GPs in the intervention group were trained in consecutive training sessions, that were repeated once. Practice assistants in both groups were trained in carrying out the screening. From June 2000 up to September 2002 some 4,000 patients older than 55 years of age were screened in the practices. 579 Patients had a positive score on the GDS-15 and of these 178 had a diagnosis of depression on the PRIME-MD. Informed consent for participating in the trial was obtained from 145 patients.

It is concluded that it is feasible, although not without difficulty to screen large numbers of elderly patients for the existence of depression in general practice for the recruitment in a randomised trial.

Chapter 4 deals with the effects of the intervention programme aiming to improve the recognition, diagnosis and treatment of depression in elderly patients compared with care-as-usual. In both treatment-groups the values of the Montgomery Åsberg Depression Rating Scale (MÅDRS), PRIME-MD and the Clinical Global Impression (CGI) decreased during the study. However, there was no statistical significant difference at any time-point between patients treated in the intervention-group and patients treated in the care-as-usual group, except for the MÅDRS-scores which were significantly lower in the intervention-group after six months than in the care-as-usual group (from 21,7 to 10,8 versus 20,9 to 10,1). At one year follow-up there were 43 patients who still had a major depression.

In the West Friesland Study the screening of large numbers of elderly patients for the existence of depression in general practice and the subsequent treatment of them after training of GPs after one year did result in better outcomes compared to baseline, but there were no statistical significant differences with patients treated in care-as-usual, except for MÅDRS-scores after six months. The intervention used in the WFS costs a
Summary

lot of extra energy that is not translated in clinical relevant improvements of patients and therefore can not be recommended.

The importance of diagnosing depression in primary care is undisputed. Especially in the elderly, recognition of depression may pose difficulties. Screening for depression in primary care requires validated instruments. Therefore, in chapter 5 the research-question was assessed whether a cut-off of 5 on the 15-item version of the GDS that was determined beforehand yielded the highest sensitivity and specificity for the diagnosis of major depression in primary care.

A sample of 330 patients was drawn from a group of elderly patients (≥ 55 years) that participated in the West Friesland Study (WFS). In that trial the effectiveness of a disease management programme aimed to improve the recognition, diagnosis and treatment of major depression in elderly people in primary care was compared to care-as-usual. An on-study validation of the GDS-15 was performed in the WFS. The mood-module of the PRIME-MD served as the external criterion for major depression.

The results showed that using a ROC-curve the best cut-off score of the GDS-15 was 5. This cut-off score gave a sensitivity of 0.79 and a specificity of 0.67 and a negative predictive value of 0.94.

It is concluded that the validation in retrospect of the a priori chosen cut-off score of 5 in a sample of the study population supports our a priori choice. Therefore, the chosen cut-off was appropriate and does not influence the results of the intervention part of the WFS as it is likely that we did not miss a substantial amount of patients who in fact did have a diagnosis of depression.

Chapter 6 deals with prescription-data of antidepressants in the Netherlands. The aim was to evaluate General Practitioner (GP) diagnoses and prescription data from 1993 onwards to 1998 related to encounters for depression in the Netherlands. Therefore, an exploratory analyses of
Summary

diagnoses and prescription data by Intercontinental Medical Statistics (IMS) Health was performed. A representative sample of medical doctors, GPs and specialists, regularly gathered data on morbidity and (pharmacother)apy on specific medical problems. Consecutive annual samples of 160 GPs participated in the study. GPs registered all contacts with patients in special booklets for one week in every quarter of the year. In total, 1300 working weeks of medical doctor are registered on a one-year basis. Data refer to patient-encounters. Diagnoses are based on first ICD-9 and later ICD-10 criteria for depression.

The number of first encounters with the GP, or ‘incidence’ of depression, rose gradually, from 909 in 1993 to 1,482 in 1998, an increase of 63%. The number of antidepressant prescriptions increased as well, mostly at repeat consultations: from 3,708 in 1993 to 14,024 in 1998, an increase of 278%. Antidepressant prescribing at the first encounter was 564 in 1993 vs. 1,080 in 1998. The first contact with a GP for depression led to an antidepressant prescription in 62% of cases in 1993 and 73% in 1998. Paroxetine, fluoxetine, and mirtazapine accounted for 56% of antidepressants. The first TCA prescribed was amitriptyline (7%) of prescriptions.

It is concluded that in the five-year period of 1993 until 1998, GPs prescribe more antidepressants and SSRIs are prescribed more than TCAs. Furthermore, GPs diagnose depression more frequently, and make more follow-up consultations.