

# THE ROLE OF THE GENERAL PRACTITIONER IN THE PREVENTION OF DEPRESSION-RELATED SUICIDES

Zoltan Rihmer MD, PhD, DSc<sup>1</sup>, Xenia Gonda MA Pharm PhD<sup>1, 2</sup>

<sup>1</sup>Department of Psychiatry and Psychotherapy, Semmelweis University, Budapest

<sup>2</sup>Department of Pharmacodynamics, Semmelweis University, Budapest

**Rezumat:** Comportamentul suicidar este rar întâlnit în comunitatea pacienților, însă este mai frecvent la pacienții psihiatrici, care pot solicita pentru o consultație doctorii lor de familie cu câteva săptămâni sau luni înainte de a comite suicidul. Depresia majoră este diagnosticul psihiatric cel mai frecvent întâlnit la victimele suicidului complet și la cei care încearcă să se sinucidă (56-87%), iar de aceea tratamentul de succes, acut și de lungă durată al depresiei reduce semnificativ riscul de comportament suicidar, chiar în populația cu risc crescut. Deoarece ceva mai mult de jumătatea viitoarelor victime ale suicidului contactează medicii lor generaliști cu câteva săptămâni înainte de a-și sfârși viața, medicii de circumscripție joacă un rol important în predicția și prevenirea actului de suicid. Cinci studii comunitare de mare amploare arată că educația medicilor generaliști și de alte specialități pentru recunoașterea depresiei și a farmacoterapiei potrivite, mai ales dacă sunt însoțite de intervenții psiho-sociale și educația publicului pot ameliora identificarea și tratamentul depresiei, ba chiar că numărul de sinucideri și de încercări de suicid este mai redus în zonele deservite de doctorii care au fost special antrenați.

**Summary:** Suicidal behaviour is a rare event in the community, but it is more common among psychiatric patients, who may contact their general practitioners few weeks or months before the suicidal event. Major depressive episode is the most common current psychiatric diagnosis among suicide victims and attempters (56-87%), and therefore acute and long-term successful treatment of depression significantly reduces the risk of suicidal behaviour even in this high-risk population. Because more than half of all suicidal future victims contact their general practitioners within weeks before their death, primary care doctors play an important role in suicide prediction and prevention. Five large-scale community studies show that education of general practitioners and other medical professionals on the recognition and appropriate pharmacotherapy of depression, particularly in combination with psycho-social interventions and public education improve the identification and treatment of depression and reduces the rate of completed and attempted suicide in the areas served by trained doctors.

**Keywords:** Depression, General Practitioners, primary care, suicide, suicide attempt, suicide prevention

## 1. Introduction

Major depressive episodes (unipolar and bipolar) are the most common current diagnoses of suicide victims and attempters (Hawton and Heeringen, 2000; Balazs et al., 2003; Mann et al., 2005; Turecki and Brent, 2016). The lifetime, 1-year and point prevalence rates of unipolar major depression in the general population is in average 12%, 7%, and 4% respectively (Rihmer and Angst, 2005a; 2005b). In addition, the lifetime, 1-year and current prevalence rates for bipolar (manic-depressive) disorder, including both bipolar I and bipolar II subtypes in the community are around 4%, 1% and 0.6% respectively (Rihmer and Angst, 2005a; 2005b). Up to two-thirds of patients with unipolar depression and bipolar disorder have comorbid anxiety disorder(s), and/or substance-use disorders and around one-third of them also have one or more serious medical illness and this comorbid disorders decrease the chance of diagnosis of depression and increase the risk of suicidal behaviour (Davidson and Meltzer-Brody, 1999; Hawton and Heeringen, 2000; Wasserman, 2001; Rihmer and Angst, 2005b).

## 2. Prevalence and recognition of depressive disorders in primary care

Studies consistently show that only 35-50% of all depressed patients in the community seek medical help and the majority of the ones who do consult their general practitioners (GPs) however, are not adequately diagnosed and treated despite the last decades great diagnostic and therapeutic achievements in the field of mood disorders (Lecrubier and Hergueta, 1998; Davidson and Meltzer-Brody, 1999; Berardi et al., 2005; Rihmer and Rutz, 2019). While the point prevalence of DSM-III/DSM-IV or ICD-10 major depression in the primary care practice is around 8-10%, most of depressed patients are not recognised by their GPs. Moreover the rate of adequate antidepressant treatment among diagnosed depressives was less than 20% (Spitzer et al., 1994; Szadoczky et al., 1997; Davidson and Meltzer-Brody, 1999; Szadoczky et al., 2004; Berardi et al., 2005; Torzsa et al., 2009a). The WHO Collaborative Study conducted in 1991 on more than 25.000 primary care patients in 14 countries reported that on the whole, approximately 50% of the patients with an ICD-10 diagnosis of major depressive episode were recognised as suffering from some kind of mental disorder by their GPs, but only 15% of major depressives were recognised as having depression, and fewer than half of them were prescribed antidepressants for their depression (Lecrubier and Hergueta, 1998; Lecrubier, 2001). Studies performed 5-10 years later, reported much higher rates of

recognition and treatment of depression in primary care (62-85%) and 33-50% of them were treated with antidepressants (Lecrubier, 2001; Berardi et al., 2005) indicating that the situation does appear to be improving as a consequence of steadily increasing awareness of depression.

Around half of depressed patients report painful physical symptoms both in psychiatric and in primary care settings that make the diagnosis of depression more difficult (Garcia-Cebrian et al., 2006). The majority of patients with depression consult their GPs primarily for somatic reasons, either because of their somatic comorbidity or because of the predominant somatic symptoms of their depression (Davidson and Meltzer-Brody, 1999; Lecrubier, 2001; Tylee and Rihmer, 2004). This is important, since major depression is frequently associated with chronic physical disorders (cardiovascular diseases, hypertension, stroke, cancer, epilepsy, Parkinson's disease, HIV infection/AIDS, etc.) which further increase the risk of suicidal behaviour. Several factors, relating to both patients and doctors, are likely to affect the recognition of major depression in primary care. Patient factors associated with non-recognition of depression include: comorbid psychiatric (anxiety, substance abuse and personality) disorders, comorbid (mostly chronic) medical disorders, low degree of disability, less severe depressions, predominantly somatic symptom-presentation, male gender, younger or older age, and married marital status (Rihmer and Rutz, 2019). On the other hand, high level disability, lack of comorbid psychiatric and medical disorders, more severe depression, higher number of depressive symptoms, presenting depression predominantly with psychological symptoms (depressed mood, poor concentration, fatigue, psychomotor retardation), middle age-range, female gender and separated or divorced marital status increases the chance of correct identification (Rutz et al., 1995; Rutz et al., 1997; Lecrubier, 1998; Lecrubier, 2001; Szadoczky et al., 2004).

The recognition and management of depression in primary care practice is still far from the optimal (Lecrubier, 2001; Berardi et al., 2005; Rihmer and Rutz, 2019). Physician factors, related to poor recognition of depression are: lack of experience, insufficient or suboptimal knowledge about the symptoms, treatment and good prognosis in treated depression, prejudices about mental illness, lack of postgraduate psychiatric training, insufficient interview-skills, lack of cooperation with psychiatrists, and low level of empathy (Rutz et al., 1997; Lecrubier, 2001). Studies showed that specific organisational interventions and postgraduate training programmes improve the recognition and treatment of depression in primary care (Rutz et al., 1997; Mann et al., 2005; Hegerl et al., 2006; Szanto et al., 2007; Szekely et al., 2013). Short screening-instruments, some of them designed specifically for primary care are also helpful, but they do not replace a well-performed and competent clinical interview (Davidson and Meltzer-Brody, 1999; Lecrubier, 2001; Szadoczky et al., 2004). History of completed suicide among first or second degree relatives could be a good and simple clinical marker for current and lifetime major depressive episode in primary care practice (Torzsa et al., 2009a).

Studies on suicidal behaviour in primary care focuses mainly on unipolar major depressive disorder and less attention is paid to bipolar illness, the point prevalence of which is between 1 and 2 percent in the GP practice (Spitzer et al., 1994; Szadoczky et al., 1997). Because the majority of hypomanic and manic patients later also become depressed (Rihmer and Angst, 2005a), patients with history of hypomania and mania, particularly in the presence of current depression should be considered as persons at very high risk of suicide.

### **3. Depression and suicidal behaviour**

Between 10-18 % of adults worldwide report lifetime suicidal ideation and 3-5 % have made at least one suicide attempt lifetime (Kessler et al., 1999; Szadoczky et al., 2000; Nock et al., 2008). Suicidal ideation, suicide attempt and completed suicide are three different, but greatly overlapping features. Prior suicide attempt and current major depression are the two best predictors of future suicide, and the vast majority of suicide attempters/completers come from a population of people with current suicidal ideation, particularly in the presence of untreated major depression (Kessler et al., 1999; Goldney et al., 2003). However, depression, suicide attempt and completed suicide are three different, but greatly overlapping categories: more than one third of suicide victims have at least one previous suicide attempt, and the first suicide attempt significantly increases the risk of completed suicide during the next 10-15 years (Isometsa and Lonnqvist, 1998; Hawton and Heeringen, 2000; Suokas et al., 2001; Wasserman, 2001; Suominen et al., 2004). Although suicidal behaviour is a relatively rare in the primary care practice, given that depression is very common among completed suicides, depression, particularly in combination with past or current suicidal behaviour should be taken very seriously even in primary care.

#### **4. Clinically detectable suicide risk factors in primary care**

Suicide is a very complex, multi-causal human behaviour with several medical-biological as well as psychosocial and cultural components and it is not the normal response to the levels of stress experienced by most people but it is not the linear consequence of major mental disorders. It is also associated with a number of psychiatric-medical (e.g., major mental) disorders, psycho-social (e.g., chronic adverse life situations and acute psycho-social stressors), and demographic (e.g., male gender, old age) suicide risk factors of varying prognostic utility. Although the statistical relationship between the different psycho-social and demographic risk factors and suicidal behaviour is well documented, (Rihmer, 2007; Nock et al., 2008) their predictive value is very weak in individual cases. Because suicidal behaviour is very rare in the absence of current major psychiatric disorders, psychiatric-medical suicide risk factors, particularly current major depression with prior a suicide attempt are the most powerful and clinically explorable predictors of suicidal behaviour, especially in the presence of psycho-social and demographic suicide risk factors (Hawton and Heeringen, 2000; Wasserman, 2001; Balazs et al., 2003; Goldney et al., 2003; Tylee and Rihmer, 2004). A recent cross-national epidemiological survey showed that for lifetime suicide attempts the strongest diagnostic risk factors were mood disorders in high-income countries but impulse control disorders in low- and middle-income countries (Nock et al., 2008). Studies from different countries of the world consistently show that more than 90 % of suicide victims or attempters have at least one (mainly untreated) major mental disorder, most frequently unipolar or bipolar major depressive episodes (56-87%), substance-use disorders (26-55%) and schizophrenia (6-13%). Comorbid anxiety and personality disorder as well as concomitant serious medical disorders are also frequently present, but they are rarely the only or principal current diagnosis among suicide victims (Hawton and Heeringen, 2000; Wasserman, 2001; Balazs et al., 2003). In spite of the fact that more than two-thirds of suicide victims and attempters have current major depressive episode (Hawton and Heeringen, 2000; Wasserman, 2001; Balazs et al., 2003) and up to two-thirds of them contact their GPs within four weeks before the suicidal act (Rihmer et al., 1990; Luoma et al., 2002; Balazs et al., 2003; Fekete et al., 2004), the rate of pharmacotherapy with antidepressants and/or mood stabilisers in depressed suicidal patients is less than 20 % and thus disturbingly low (Rihmer et al., 1990; Henriksson et al., 2001; Balazs et al., 2003).

Considering the very high rate of current major mental disorders among people with suicidal behaviour, in the early 1980's Khuri and Akiskal (1983) considered that much of the putative psycho-social and demographic suicide risk factors were not modifiable in the frame of individual healthcare and they proposed that suicide prevention should focus on the treatable contributory psychiatric disorders involved in such behaviour (Khuri and Akiskal, 1983).

#### **5. Detection of the suicidal patient in primary care**

Suicidal behaviour (attempt or completed suicide) in major mood disorder patients occur mostly during major depressive episodes (79-89%), less frequently in the frame of dysphoric (mixed) mania (11-20%), but practically never during euphoric mania and euthymia (0-1%) (Isometsa et al., 1994b; Rihmer, 2007). It indicates that suicidal behaviour in mood disorder patients is a state-dependent phenomenon, showing the significant role of recognition and treatment of depression in suicide prevention (Khuri and Akiskal, 1983; Mann et al., 2005). Since more than half of suicide victims contact their GPs 4 weeks before their death (Isometsa et al., 1995; Luoma et al., 2002; Rihmer and Rutz, 2019), it is very likely that at these visits the vast majority of the patients are clinically depressed, and most of them have one or more comorbid psychiatric and/or medical disorder. The characteristic features of suicidal depression are: agitation, severe anxiety, hopelessness, insomnia, appetite and weight loss, comorbid substance-use disorders and bipolar depression (i.e., depression with past hypomania or mania). Recent psycho-social stressors and acute alcohol use, even in non-alcoholic depressives (Hawton and Heeringen, 2000; Wasserman, 2001; Rihmer, 2007; Nock et al., 2008; Sher et al., 2009), also increase the current risk of suicidal behaviour. However, depression is often masked by secondary alcoholism, particularly in men, and symptoms of suicidal depressed men is often masked by aggressive, impulsive, and abusive behaviour, and that these men are better known to legal and social welfare agencies than to their GPs (Rutz et al., 1995; 1997; Rihmer and Rutz, 2019). The complex interaction between psychiatric, personality, and psycho-social factors in suicidal behaviour is best explained by the stress-diathesis model for suicidal behaviour where the stressors include acute psychiatric disorder and negative life events ("state" component), and the diathesis includes aggressive, impulsive and pessimistic personality features ("trait" component, Mann et al., 2005). Both

hopelessness/pessimism and aggressiveness /impulsiveness may be amenable to cognitive/behavioural therapy and pharmacotherapy, like SSRI antidepressants, lithium and other mood stabilizers.

GP contact is quite common before suicide:thirty-four to sixty-six percent of suicide victims visit their GPs 4 weeks before their death, and 20-40 % also do so in the last week, respectively (Isometsa et al., 1995; Luoma et al., 2002; Rihmer and Rutz, 2019) and the rate of GP contact before suicide attempt is in the same magnitude (Fekete et al., 2004). Compared to non-suicidal patients, suicide victims visit their GPs three times more frequently in the last 4 weeks of their life (Isometsa et al., 1994a; Isometsa et al., 1994b; Luoma et al., 2002) and the number of GP visits increases significantly before the suicidal act both among completed suicides and suicide attempters(Michel et al., 1997; Fekete et al., 2004). However, among those with medical contact, the frequency of persons who communicate explicitly their suicidal intention is only around 20%, and it is particularly rare in primary care (11%) and in other (non-psychiatric) specialist settings (6%). One study have found that 18% of the suicide victims visited GPs on the last day of their life, but the topic of suicide was discussed in only 21% of these cases (Isometsa et al., 1995). An extensive literature review shows that about 40% of suicide victims communicate their intention (Pompili et al, 2016).

To discuss the possibility of suicidal behaviour with the patient and family members as a common but preventable complication of acute severe mental disorders is very important, because asking questions about suicidal ideation and past suicide attempts does not trigger suicide (Hawton and Heeringen, 2000; Gould et al., 2005). This is particularly true if such a discussion is accompanied by some sentences explaining that depressive disorders can be successfully treated, and that suicidal intent will vanish after (or even before) the recovery from depression. This is beneficial, as many patients think they are alone or unique in their suicidal ideas. Leaflets, posters, and fliers left in the waiting room indicating the main symptoms and dangers of depression as well as information on good prognosis of treatment may prompt people to ask for help(Rihmer and Rutz, 2019). Short screening instruments, like the Beck Scale for Suicide Ideation (an interview-rated 19-item scale) and the Beck Hopelessness Scale (a 20-item self-reported questionnaire) are useful in clinical practice for detecting actual suicide risk (Hawton and Heeringen, 2000; Wasserman, 2001). Yet, no one screening instrument can replace the optimal doctor-patient relationship, including asking the right questions at the right time, accompanied by a highly professional and empathic atmosphere. Asking simple questions (“what do you think about the future?”, “do you feel that life is not worth living?”, etc.) can easily facilitate further, more deep and honest discussion on the topic of suicide.

Because the risk of suicide is extremely high a few days and weeks after the discharge from inpatient psychiatric departments(Hawton and Heeringen, 2000; Qin and Nordentoft, 2005)GPs should be alert when a patient discharged from the psychiatric clinic seeks help.As a significant part of depressives stop their medication at the fourth week of the treatment (Lin et al., 1995)aftercare of recently discharged depressive patients is essential for improving compliance and to maintain efficacy. The clinical, psycho-social, and demographic features of the acutely suicidal patient in primary care are listed in Table 1.

## **6. Management and prevention of depression-related suicides in primary care practice**

Unfortunately, we cannot prevent all suicides. However, the majority of depression-related suicides are preventable, even in primary care.Suicidal behaviour usually does not occur in the very early stages of the depression and this allows enough time to make a precise diagnosis to consult psychiatrists if needed and to start appropriate treatment. Continuing medical education (including specific depression-training) for GPs improve recognition of depression including detection of current suicidal ideation, and increase treatment of depression(Rihmer et al., 1995; Rutz et al., 1997; Hegerl et al., 2006; Henriksson and Isacsson, 2006; Szanto et al., 2007). The five most important studies on this field are: 1.) The pioneering Gotland Study, performed in the early 80's in the last century(Rihmer et al., 1995; Rutz et al., 1997); 2.) the Nuremberg Alliance Against Depression (NAAD) project performed in Germany between 2000 and 2002(Hegerl et al., 2006); 3.) the Swedish Jamtland study performed between 1995 and 2002 (Henriksson and Isacsson, 2006); 4.) theHungarian GP depression-management educational program between 2000 and 2005 implemented in a region of Kiskunhalas where the baseline suicide rate was twice the national average (Szanto et al., 2007); and the Hungarian GP Depression Recognition and Suicide Prevention Program in Szolnok (Torzsa et al., 2009b, Szekely et al, 2013).

The *Swedish Gotland Study* showed that 2 years after the two-days postgraduate educational programme on the diagnosis and treatment of depression for the GPs in 1983 the suicide rate of Gotland decreased by 60%, the prescription of antidepressants increased from 50% to 80% of Swedish average, and

the utilization of non-specific medications (benzodiazepines, antipsychotics) decreased by 25% compared to the Swedish average. The number of referrals to psychiatry for depressive disorders decreased by more than 50% and the inpatient care for depression as well as the number of days on sick leave because of depression also decreased by 75% and 50%, respectively. All these changes were in contrast to the earlier trends on Gotland and/or contemporary trends in the rest of Sweden (Rutz et al., 1995; Rutz et al., 1997). Most importantly the rate of depressive suicides among all suicides decreased significantly after the programme (from 42% to 16%,  $p < 0.01$ ), indicating that the decline in suicide mortality after the education resulted directly from a robust decrease in depressive suicides particularly among those who used violent suicide methods (Rihmer et al., 1995). However, the decline in depressive suicides after the training was almost entirely the result of a decrease in female depressive suicides, whereas male suicidality was almost unchanged. Few suicidal males were known to the local medical services, although many of them were known to the police and social welfare services. However, the overall favourable effect of the education faded in a few years and repeated education in 1993 and 1995 again led to another marked decrease in suicides, again mainly in females (Rutz et al., 1997).

The *Nuremberg Alliance Against Depression*, a 2-year intervention program was performed in Nuremberg (440.000 inhabitants) at four levels: a) training GPs, b) a public relations campaign, c) cooperation with community facilitators (teachers, priests, local media) and d) support for the self-help activities and for high-risk groups (depressed patients, suicide attempters and their relatives). The results showed that compared to control region (Würzburg, 290.000 inhabitants) a significant reduction in frequency of all suicidal acts (suicides and suicide attempts combined) was observed in the intervention region during the 2-year intervention period (2002 vs 2000, Nuremberg: 24% reduction, Würzburg: 7% increase,  $p < 0.004$ ). The reduction in all suicidal acts was most pronounced for violent methods. However, concerning only completed suicides there was no significant difference in the decline of suicide rate between the intervention and control region (Hegerl et al., 2006).

Evaluating the effects of continuing medical education programme (8 seminars between 1995 and 2002) for the GPs on depression in *Jamtland county, Sweden* (136.000 inhabitants) the authors found that compared to pre-intervention period (1970-1994) the mean suicide rate of Jamtland county decreased by 36% in the intervention period (1995-2002) while the mean suicide rate of Sweden decreased “only” by 30% during the same time. The use of antidepressants in Jamtland county increased from 25% below the Swedish average to the same level. In line with the greater reduction of suicide rate in Jamtland county the use of antidepressants increased by 161% in this county while the same figure for the whole Sweden was “only” 108% (Henriksson and Isacson, 2006).

As for the *Hungarian GP depression-management educational program*, in the intervention region (region of Kiskunhalas, 73.000 inhabitants) the 5-year preintervention (1996-2000) and postintervention (2001-2005) mean annual suicide rates per 100.000 population were 59.7 and 49.9 (16% decrease). In the local control region (Kiskunfélegyháza, 54.000 inhabitants) the same figures were 50.4 and 45.1, respectively (11% decrease). In spite of the fact that this difference is mathematically not significant the difference shows in the expected direction and is in good agreement with the finding that the raise in antidepressant prescription and the rate of antidepressant treated persons increased significantly more in the intervention than in the control region. However, the suicide mortality of subjects seen only by GPs in the last year of their life decreased significantly (by 26%) compared to those who contacted other health-care services (internal medicine, cardiology, rheumatology, psychiatry, pulmonology, etc.) or with no medical contact at all. Further, the decrease in annual suicide rate was significantly greater in the intervention region (9.8 per 100.000) compared with the county minus intervention region (6.9 per 100.000) and compared with all of Hungary (4.5 per 100.000) (Szanto et al., 2007; Rihmer and Rutz, 2019).

The *Hungarian Depression Recognition and Suicide Prevention Program* in Szolnok started when the Institute of behavioural Science of Semmelweis University joined the European Alliance Against Depression program in 2004. The program was implemented in Szolnok (approx. 80000 inhabitants) in 2005 with the primary aim of educating all local professionals (including GPs, psychiatrists, psychologists, telephone help service providers, pharmacists, teachers, pastors, police officers, family nurses, geriatric care providers etc.) about the recognition of depression and suicide risk and basic intervention methods (Torzsa et al., 2009b). In 2005, the first year of the program, absolute number of suicides decreased by 57%, while in 2006 by 47% compared to the average number in the previous 9 years in the town of Szolnok. On a

national level a slight decrease in suicide rates were observed during the same period, however, it did not reach the magnitude observed in Szolnok in any other region. The significant improvement was observable in 2007, the year following the completion of the program, however, in 2008 it returned to the rate observed in previous years (Torzsa et al., 2009b, Szekely et al, 2013).

Although the five major healthcare-based educational programmes, discussed above, were performed in different time-frames and used somewhat different research design the main results show in the same direction indicating that better care of psychiatric (and particularly depressive) patients is one important contributing factor in declining suicide rates of the areas served by trained GPs and other healthcare workers.

It should be noted, however, that improved primary care education in isolation, does not have any significant long-term effect, and only complex educational and organisational interventions that incorporate continuous clinician education, an enhanced role of nurses and social workers, as well as high level of integration between primary and secondary (psychiatric) care (consultation-liaison) are beneficial. GP education should be well-focused, quite short and interactive, include written materials, lectures, seminars, video-demonstrations, and small-group discussions (Rutz et al., 1997; Mann et al., 2005; Hegerl et al., 2006; Szanto et al., 2007, Szekely et al, 2013).

Better management of depression requires not only improved recognition and treatment skills from the doctors, but also good compliance from the patients, since nonadherence to antidepressant therapy is one of the most common causes of treatment failure. About one-third of patients stop taking antidepressants during the first 4 weeks of therapy, and around half of them take them until the end of the third month (Lin et al., 1995). The better side-effect profile and less toxic nature of SSRIs and other new antidepressants, and the recently increasing practice of GPs to prefer these drugs over tricyclic antidepressants is also beneficial for improving the quality of care and reducing the risk of death in the case of overdose. Using simple psycho-educational messages (i.e. why, how, and how-long to take antidepressants and what to do in the case of side effects, to optimise the clinical response) both in oral and written form increases the adherence of patients to antidepressant therapy (Lin et al., 1995, van Os et al, 2002).

Management of depressed patients in primary care should follow international and national guidelines established (van Os et al., 2002). However, since antidepressant monotherapy, unprotected by mood stabilisers in bipolar depression, sometimes induces agitation, excitement (and rarely also auto- and hetero-aggressive behaviour) in the first few days or weeks of treatment, all depressive patients should be carefully checked for bipolarity and followed closely in the first 1-3 weeks of the therapy (Akiskal et al., 2005; Rihmer, 2007). Anxiety, agitation or insomnia should always be controlled with concomitant use of high-potency benzodiazepines, which hasten the clinical response if combined with antidepressants. Regular aftercare with fixed appointments and permanent psychological support are also recommended, particularly for those patients with prior suicide attempts. This is important, since the actual clinical picture immediately after suicide attempt is often misleading, due to the cathartic effect of self-aggression, resulting in a short-lived but sometimes marked improvement of the depression (Jallade et al., 2005). This can also serve as one of the explanations why some healthcare workers misinterpret suicide attempts as manipulative acts.

Acutely suicidal patients usually need inpatient treatment even of involuntary nature. In the case of severe agitation or anxiety prompt anxiolysis with benzodiazepines or with atypical antipsychotics and close observation is highly recommended. After an open discussion with the patient and relatives, involuntary admission is rarely needed. If acute hospitalisation is not indicated, a close observation by family members and removing possible means of suicide (i.e., guns, drugs, pesticides, car key etc.) as well as consultation with a local outpatient psychiatrist is advised. GPs should work in close and permanent collaboration with the local mental health services. Outpatient psychiatric consultation is also helpful in the cases of differential-diagnostic problems, treatment resistance and comorbid substance-use disorder regardless of whether the patient is suicidal or not. If long-term/prophylactic pharmacotherapy is needed (bipolar disorder, recurrent unipolar major depression) the GP may direct the patient to a psychiatrist for optimising the therapy (Hawton and Heeringen, 2000; Wasserman, 2001; Tylee and Rihmer, 2004). The most frequent reasons of outpatient psychiatric consultation and inpatient admission are shown in the Table 2.

Prevention of depression-related suicidal behaviour in primary care is not easy, but it is not impossible. In the majority of the cases GPs are the first to meet depressed patients and should be trained in

diagnostics and up to date use of antidepressants and non-pharmacologic interventions. Although specific depression-targeted psychotherapies exceed the frame of primary care, psycho-education and supportive psychotherapy is needed, and it is essential to offer this kind of treatment in primary care settings. Regardless, GPs should have knowledge about the identification and treatment of depression and they also should collaborate with psychiatric services.

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**Table 1. Most characteristic features of acutely suicidal patients in primary care**

CLINICAL FEATURES	PSYCHOSOCIAL FEATURES	DEMOGRAPHIC FEATURES
Primary suicide	Secondary suicide	Tertiary suicide

<i>risk factors</i>	<i>risk factors</i>	<i>risk factors</i>
<ul style="list-style-type: none"> <li>• Severe depressive episode (agitation, insomnia, anxiety, hopelessness, guilt)</li> <li>• Acute/chronic alcohol/drug problems</li> <li>• Severe comorbid medical disorder(s)</li> <li>• Hopelessness, wish to die, suicide ideas, suicide plan, suicide gestures</li> <li>• Recent discharge from inpatient psychiatric department (short hospital stay, high number of prior hospitalizations, unplanned discharge)</li> <li>• Impulsive/aggressive personality features</li> <li>• Lacking treatment and/or family support</li> </ul>	<ul style="list-style-type: none"> <li>• Acute psycho-social stressors (loss-events, major financial problems)</li> <li>• Isolation/divorce, living alone</li> <li>• Gun/poison at home, living in high buildings</li> <li>• Unemployment, permanent adverse life-situations</li> </ul>	<ul style="list-style-type: none"> <li>• Male gender (all ages)</li> <li>• Old age (both genders)</li> <li>• Young people (males)</li> <li>• Same-sex orientation</li> <li>• Spring/early summer</li> </ul>

**Table 2. When to refer primary care patients to mental health services?**

<b>OUTPATIENT PSYCHIATRIC CARE</b>	<b>INPATIENT PSYCHIATRIC ADMISSION</b>
<ul style="list-style-type: none"> <li>• Recent suicide attempt/gesture</li> <li>• Differential diagnostic problem</li> <li>• Treatment resistant depression</li> <li>• Comorbid substance abuse/dependence</li> <li>• Noncompliance with the treatment</li> <li>• Severe personality disorder</li> <li>• Hypomanic episode</li> <li>• Newly recognized bipolar disorder</li> </ul>	<ul style="list-style-type: none"> <li>• Current suicidal danger</li> <li>• Very severe depression (psychotic, catatonic, negativistic features)</li> <li>• Manic or hypomanic episode</li> <li>• Acute psychotic states. Severe comorbid medical disorder(s)</li> </ul>