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Strategies to Improve the Management of Depression in Primary Care

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Abstract

Depression is one of the most common mental health problems encountered in primary care and a leading cause of disability worldwide. In many cases, depression is a chronic or recurring disease, and as such, it is best managed like a chronic illness. Moreover, medically ill patients with depressive disorder are at greater risk for a chronic course of depression or less complete recovery. Antidepressant medications and psychotherapies can help many if not most depressed individuals, but millions of primary care patients do not receive effective treatment. Effective management of depression in the primary care setting requires a systematic, population-based approach which entails systematic case finding and diagnosis, patient engagement and education, use of evidence-based treatments including medications and / or psychotherapy, close follow-up to make sure patients are improving and a commitment to keep adjusting treatments or consult with mental health specialists until depression is significantly improved. Programs in which primary care providers and mental health specialists collaborate effectively using principles of measurement-based stepped care and treatment to target can substantially improve patients' health and functioning while reducing overall health care costs.

Introduction

Depression is one of the most common and disabling chronic health problems encountered in the primary care setting. In this article, opportunities and strategies to improve care for depression in primary care practice are reviewed and collaborative care, an evidence-based approach to chronic disease management for depression is introduced. In this approach, primary care providers (PCPs) and care managers look after a caseload of depressed patients with systematic support from mental health experts. Lessons from implementing evidence-based collaborative care programs in diverse primary care practice settings are summarized to convey relatively simple changes that can improve patient outcomes in primary care practices.

The clinical epidemiology of depression in primary care

Behavioral health problems such as depression, anxiety, alcohol or substance abuse are among the most common and disabling health conditions worldwide [1] and common in

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primary care settings [2-9]. Depending on the clinical setting, between 5 and 20 % of adult patients,[10, 11] including adolescents,[12-14] and older adults[15], seen in primary care have clinically significant depressive symptoms. Depression is one of the most common conditions treated in primary care and nearly 10% of all primary care office visits are depression related.[16] From 1997 to 2002, the proportion of depression visits that took place in primary care increased from 51% to 64%.[17] For many patients, depression is a chronic or recurrent illness.[18] For example, up to 40 % of depressed older adults meet criteria for chronic depression.[19] And depressed patients with chronic medical illnesses are at greater risk for a chronic course of depression or less complete recovery.[20]

National surveys have consistently demonstrated that more Americans receive mental health care from primary care providers than from mental health specialists [21, 22] and primary care has been identified as the 'de facto mental health services system'[2, 21] for adults, children, and older adults with common mental disorders.[23, 24] Most patients would prefer an integrated approach in which primary care and mental health providers work together to address medical and behavioral health needs.[25] In reality, however, we have a fragmented system in which medical, mental health, substance abuse, and social services are delivered in geographically and organizationally separate 'silos' with little to no effective collaboration. A recent national survey[26] concluded that two thirds of primary care providers reported that they could not get effective mental health services for their patients. Barriers to mental health care access included shortage of mental health care providers, and lack of insurance coverage.

Interaction of depression with other chronic illnesses

Successful management of depression in primary care settings is particularly important considering complex interactions between mental and physical health[27]. Major depression is associated with high numbers of medically unexplained symptoms [28-30], such as pain and fatigue, and poor general health outcomes[1, 31]. Untreated depression is independently associated with morbidity[31-34], delayed recovery and negative prognosis among those with medical illness, elevated premature mortality associated with comorbid medical illness [35] and increased health care costs [36-38]. Depression also increases functional impairment [39-44] and decreases work productivity [45]. Depression significantly decreases quality of life for patients and their family members [46, 47]. In a study of 2,558 elderly primary care patients, participants with depression had greater losses in quality adjusted life years (QALYs) than those with emphysema, cancer, chronic foot problems, or hypertension[47]. Depression can also be a barrier to positive and productive relationships between patients and providers[48, 49]. PCPs tend to rate patients with depression as more difficult to evaluate and treat compare to those without depression [48] and depressed patients have been shown to be less satisfied with their PCPs[49].

Screening/Diagnosing Depression

Depression in primary care is underdetected, underdiagnosed, and undertreated. Older adults, men, patients with medical comorbidities, and patients from ethnic minority groups are at particularly high risk of not being recognized as depressed or treated effectively.[50-54] The U.S. Preventive Services Task Force (USPSTF) issued recommendations, encouraging

primary care physicians to routinely screen their adult patients for depression in clinical settings that have systems in place to assure effective treatment and follow up [55].

Brief screening tools for depression are available. A simple question 'Do you often feel sad or depressed?' to which the patient is required to answer either 'yes' or 'no' was tested in a sample of medically ill patients in the community and had a sensitivity of 69% and a specificity of 90% [56]. The Patient Health Questionaire-2 (PHQ-2) consists of two questions about depressed mood: (a) 'during the past weeks have you often been bothered by feeling down, depressed, or hopeless?' And (b) 'during the past month have you often been bothered by little interest or pleasure in doing things.'[57] Such brief screening tools can be easily administered by office staff or physicians during a primary care visit. Positive response to these questionnaires should alert the primary care provider to further evaluate the patient for depression. Not all depressed patients will answer positively to these questionnaires. To address the possible 'false negatives,' clinicians may wish to ask additional questions about depressive symptoms for patients who appear depressed, who have a difficulty engaging in care, or whose functional impairment seems inconsistent with objective medical illness.

Treatment of depression

Over 25 medications have been approved by the FDA for the treatment of major depression and there is strong and increasing evidence about the effectiveness of psychotherapies that can be delivered in primary care or specialty mental health care settings [58-60]. A number of guidelines have been developed to guide the effective management of depression in primary care [61] and in specialty mental health settings.[62] These guidelines succinctly summarize the evidence-base for pharmacological and nonpharmacological treatment options. If nonpharmacologic treatments are available, PCPs should ask patients who are initiating depression treatment about preferences for medications or psychotherapy because the ability to address a patient's treatment preference has been shown to be related to the likelihood of entering depression treatment [63] and better treatment outcomes [64]. Patients' clinical outcomes should be tracked with structured depression rating scales, such as the 9-item Patient Health Questionnaire (PHQ-9), similar to the way primary care providers follow clinical outcomes of other treatments such as blood pressures or blood lipids. Treatments should be systematically adjusted for patients who do not improve with initial treatments using evidence-based medication treatments and/or psychotherapies. The flowchart in Figure 1 summarizes a comprehensive guideline for the treatment of major depression in primary care developed by the Institute of Clinical Systems Improvement (ICSI).[65]

Effective management of depression in primary care requires a number of steps: detection and diagnosis, patient education and engagement in treatment, initiation of evidence-based pharmacotherapy or psychotherapy, close follow-up focusing on treatment adherence, treatment effectiveness, and treatment side effects. Consistent follow up is crucial as treatment adherence is a major problem in primary care. Response to specific depression treatments varies among individuals and data from large treatment trials in primary care and specialty care settings point out that initial treatments are effective in about 30 – 50 % of patients regardless of the choice of initial pharmacotherapy or psychotherapy.[63, 66-68]

There is little information to guide initial selection of treatments except for treatment history in patients and family members. Clinicians should follow existing guidelines and take into account patient's treatment preferences when selecting initial treatments. Perhaps most importantly, they should be prepared to adjust and intensify treatment for the 50 – 70 % of patients who will not improve with initial treatment.[69] Data from the Sequenced Treatment Alternatives to Relieve Depression (STAR-D) trial indicates that the majority of patients who failed an initial trial of an antidepressant medication improved with sequential adjustments in dose, agent, or both in treatment.[70] Patients with particularly challenging cases of depression (i.e. those who do not respond to several treatment adjustments, patients with comorbid psychiatric problems such as psychosis, or patients considered to be at high risk for self harm) should be considered for a psychiatric consultation or referral to specialty mental health care for additional treatments such as inpatient treatment and electroconvulsive therapy.

Quality of care for depression

There is a large gap between the efficacy of treatments for depression under research conditions and the effectiveness of treatments as they occur in the “real world” primary care settings [71]. Although a number of effective pharmacological and nonpharmacological treatments exist for depression, studies in the United States and Canada have consistently demonstrated that few patients receive adequate doses or courses of such treatments.[50, 72-74] Almost 30 million Americans receive prescriptions for antidepressants each year, which are most often prescribed by primary care providers. Unfortunately many patients stop medication early because of side effects or other concerns and do not follow up with their primary care provider to change treatments. Few patients have access to or use evidence-based psychotherapies in primary care settings. Others continue on ineffective doses and medications due to clinical inertia[75] and a lack of appropriate treatment intensification in patients who are not improving with initial treatments. As a result, as few as 20 – 40 % of patients started on depression treatment in primary care show substantial clinical improvements.[76, 77] Similar problems have been identified for patients treated in specialty mental health care settings[78], but patients treated in specialty settings often have greater severity of illness and receive treatment that is more consistent with existing guidelines. Patients referred to psychotherapy often receive inadequate trials of such treatments and treatment response rates can be as low as 20 %.[79] Barriers include limited availability of evidence-psychotherapy and costs.

Time constraints and conflicting demands in ‘real-world’ primary care settings are a major challenge for effectively treating depression in primary care settings [80]. Generalist physicians also have limited training in the diagnosis and treatment of depression and other mental illnesses. Patients may feel reluctance to discuss their emotional distress, family problems, or behavioral problems with primary care providers because of the stigma associated with mental disorders and concerns that the PCP might not take their other health problems seriously.

Strategies to improve the management of depression in primary care

Efforts to improve the management of depression and other common mental disorders in primary care have focused on screening, education of primary care providers, development of treatment guidelines, and referral to mental health specialty care. Although well intended, these efforts have by and large not been effective in reducing the substantial burden of depression and other common mental disorders in primary care.[81] Another approach to improve care for patients with depression is to co-locate mental health specialists into primary care clinics. Having a mental health professional such as a psychologist, a clinical social worker, or a psychiatrist available to see patients in primary care can improve access to mental health services but there is little evidence that such co-location of a behavioral health provider in primary care by itself is sufficient to improve patient outcomes for large populations of primary care patients.[82]

Collaborative Care and Stepped Care

Over the past 15 years, more than 40 randomized controlled trials have established a robust evidence base for an approach called ‘collaborative care for depression’[83-85]. More recent studies have documented the effectiveness of such collaborative approaches for anxiety disorders [86] and for depression and comorbid medical disorders such as diabetes and heart disease [87]. In such programs, primary care providers are part of a collaborative care team that a depression care manager (usually a nurse or clinical social worker and in some cases a trained medical assistant under supervision from a mental health provider) and a designated psychiatric consultant to augment the management of depression in the primary care setting. The depression care manager supports medication management prescribed by PCPs through patient education, close and pro-active follow-up, and brief, evidence-based psychosocial treatments such as behavioral activation or problem solving treatment in primary care. The care manager may also facilitate referrals to additional services as needed. A designated psychiatric consultant regularly (usually weekly) reviews all patients in the care manager's caseload who are not improving as expected and provides focused treatment recommendations to the patient's PCP. The psychiatric consultant is also available to the care manager and the PCP for questions about patients.[83, 88-90] Table 1 summarizes key roles and tasks of the two new team members, the depression care manager and the psychiatric consultant.

Effective collaborative care adhere to the principle of stepped care in which treatment is systematically changed, intensified, or ‘stepped up’ if patients are not improving as expected (e.g., 8-10 weeks after the initiation of evidence-based pharmacotherapy)[91]. Stepped care approaches can enhance the cost-effectiveness of depression care by focusing the use of limited resources such as care management and specialist consultation on those patients who cannot be effectively managed by the primary care provider alone. Patients initiating care are educated on this systematic approach to treatment and provided tools such as a 9-item Patient Health Questionnaire (PHQ-9)[92, 93] that help them track symptoms of depression over time. They are also encouraged and empowered to request changes in treatment if treatments are not effective or cause significant side effects. Patients who continue to have depressive symptoms after initial treatment trials with medication or psychotherapy are

systematically reviewed with a psychiatric consultant and considered for additional treatments as summarized in table 2.

Because of the high risk of depression relapse [94], patients who have responded to treatment receive relapse prevention plans that help them maintain treatment gains made. Such relapse prevention plans include advice on the continuation of maintenance medications as clinically indicated, personal warning signs if depression should recur, strategies to maintain clinical gains made (e.g., continued systematic scheduling of pleasant events), and advice on what to do if depression symptoms should recur. Relapse prevention may be particularly important in patients with co-morbid medical conditions who are at higher risk for relapse than those with depression only [20]

Research Evidence for Collaborative Care

Studies of collaborative care programs have been conducted in small and large primary care practices, in diverse health care settings under fee-for-service or capitated payment arrangements, with different patient populations including both insured and uninsured / safety net populations, and with different mental health conditions including depression[83, 85] and anxiety disorders.[95] The literature has consistently demonstrated that collaborative management of depression in primary care is more effective than usual primary care.[83, 96]

In the largest trial of collaborative care to date, the study entitled ‘Improving Mood – Promoting Access to Collaborative Treatment for Late-Life Depression (IMPACT)’, 1,801 primary care patients with depression and an average of 3.5 chronic medical disorders from 18 primary care clinics in five states were randomly assigned to a collaborative stepped care program or to care as usual. IMPACT participants were more than twice as likely as those in usual care to experience a substantial improvement (a 50% or greater improvement in the depression severity score of the Hopkins Symptom Checklist (SCL-20) over 12 months.[76] They also had less physical pain, better social and physical functioning, and better overall quality of life than patients in care as usual [97]. Patients and providers participating in collaborative were more satisfied than those in usual care group.[98] More recent studies have demonstrated the effectiveness of the IMPACT program in depressed adolescents,[99] depressed cancer patients[100, 101] and diabetics,[102, 103] including low income Spanish speaking patients.[104]

Long-term cost effectiveness analyses from the IMPACT study found that patients who received collaborative care for depression had substantially lower overall health care costs than those in usual care.[105] An initial ‘investment’ in 12 months of collaborative care of approximately $522 resulted in savings in total health care costs of $3,363. Similar cost savings have been identified in other collaborative care trials in patients with depression and diabetes[103] and other chronic medical conditions, and in patients with severe anxiety (panic disorder)[106]. Large scale implementations outside of research trials in several large health care systems such as Kaiser Permanente[107] and Intermountain Healthcare[108] also point to savings in overall health care costs when collaborative care is effectively implemented. Collaborative care interventions also generate important social benefits in terms of quality

adjusted life years.[109] Finally, and perhaps most importantly, collaborative care has been shown to improve both patient[76] and provider[98] satisfaction with care.

Collaborative care programs such as the approach tested in IMPACT have been recommended as an evidence-based practice by the Substance Abuse & Mental Health Services Administration (SAMHSA) and recommended as a "best practice" by the Surgeon General's Report on Mental Health[110], the President's New Freedom Commission on Mental Health[111], and a number national organizations including the National Business Group on Health[112]. In a recent evidence-based practice report by the Agency for Healthcare Research and Quality AHRQ that reviewed the existing literature on approaches to Integration of Mental Health/Substance Abuse and Primary Care, the IMPACT program was profiled as one of the most successful models of integrated mental health care to date.[113]

Large Scale Implementations of Collaborative Care

Although there are some variations in the components of collaborative care programs, most effective programs build on several core clinical principles and components. These include the core components of chronic illness care as proposed by Wagner and colleagues[114]: (a) the use of explicit treatment plans and protocols; (2) the reorganization of the practice to meet the needs of patients who require more time, a broad array of resources, and closer follow-up; (3) systematic attention to the information and behavioral change needs of patients (4) ready access to necessary expertise (5) supportive information systems and strategies such as 'measurement-based care,'[115] 'treatment to target,' and 'stepped care.'[91] Systematic measurement of clinical outcomes using brief, patient-rating scales such as the 9-item Patient Health Questionnaire (PHQ-9) for depression[92] helps clinicians keep track if patients are improving as expected or if treatment needs to be adjusted. On the PHQ9, a drop in 5 points has been identified as a clinically meaningful reduction in symptoms but the ultimate treatment target is remission, which is captured by a PHQ-9 score less than 5.[116] Psychiatric consultation, a limited resource in most settings can then be focused on patients who are not improving as expected. Such systematic 'treatment to target' can overcome the 'clinical inertia'[75] that is often responsible for ineffective treatments of common mental disorders in primary care.

Several health care organizations have undertaken large-scale implementations of evidence-based collaborative care programs for depression. These include national health plans such as Kaiser Permanente, the Depression Improvement Across Minnesota, Offering a New Direction (DIAMOND) program in Minnesota in which the Institute for Clinical Systems Improvement (ICSI) has worked with 8 commercial health plans, 25 medical groups, and over 80 primary care clinics to implement collaborative care for depression [117, 118]. In the State of Washington, the Mental Health Integration Program (MHIP) sponsored by the Community Health Plan of Washington and Seattle King County Public Health[120] includes more than 100 community health centers and over 30 community mental health centers that work together to provide integrated care for poor, underserved, uninsured or underinsured clients with medical and behavioral health needs. Other large-scale implementations include the Army's Re-Engineering Systems of Primary Care Treatment in the Military (RESPECT-MIL) program [121], implemented in Army primary care clinics in the US and abroad; and the

Department of Veterans Affairs' Veterans Health Administration [122], which has implemented Collaborative Care in hundreds of primary care clinics across the US.

Implementing Effective Collaborative Care Programs

Over the past 10 years, the Advancing Integrated Mental Health Solutions (AIMS) Center at the University of Washington[97] has provided technical assistance and training to more than 5,000 clinicians in over 600 primary care practices to implement effective collaborative care. Below are some key lessons from the implementation of such programs in diverse practice settings.

- Fragmented financing streams are an important barrier to integrating mental health and primary care services[123], but financial integration does not guarantee clinical integration and practices have to develop effective clinical workflows where primary care providers and supporting mental health providers communicate and collaborate effectively.
- Simply co-locating a mental health provider into a primary care setting may improve access to behavioral health care but it does not guarantee improved health outcomes for the large population of primary care patients with mental health needs.
- Effective treatment requires a move from episodic acute care in which we provide the equivalent of 'behavioral health urgent care' to patients presenting for care to a population-based approach in which all patients with behavioral health needs are systematically tracked until the problem is resolved. A 'registry' or clinical tracking system is required to identify patients who are 'falling through the cracks' and to support effective stepped care. This can be accomplished using the registry functions of electronic health record systems or a freestanding registry tool [124]
- Initial treatments (be they pharmacologic or psychosocial) are rarely sufficient to achieve desired health outcomes. Systematic outcome tracking, treatment adjustment, and consultation for patients who are not improving can help achieve the desired health outcomes. This requires systematic caseload review by the treating providers and psychiatric consultation, focusing on patients who are not improving as expected.
- For mental health providers, effective collaboration in primary care requires clinical flexibility in both mental health specialist as well as primary care providers mental health providers to be flexible, regular and effective communication with patients' PCPs, the willingness to be interrupted during therapy sessions, the use of the telephone to reach patients who cannot make clinic appointments and the use of brief, evidence-based therapies such as motivational interviewing, behavioral activation, problem solving, or brief cognitive behavioral therapy that can be provided in the context of a busy primary care practice.
- Training mental health specialists and primary care in integrated care are important but not sufficient. Effective implementation requires ongoing support from clinical champions in primary care and behavioral health, financial support, operational

support, and a clear set of shared and measureable goals and objectives. As with all efforts to improve chronic illness care, such support may be easier to obtain in large delivery systems and under managed care arrangements than in small fee-for-service medical practices.

- There are many ways to implement effective integrated care for behavioral health problems in primary care. Treatment manuals used in research studies have been 'translated' into job descriptions and clear operational manuals that help busy practices implement the program in their unique settings.
- Attention to core principles such as measurement-based care and careful tracking of desired outcomes at the patient and clinic level can help make sure that integrated care programs 'live up to their promise' as they are implemented in diverse real world settings.

While the full-scale implementation of evidence-based collaborative care programs may be challenging for small to moderate sized primary care practices under current fee-for-service health care financing mechanisms,[123] relatively 'simple' changes can help practices improve care and gain important experience on the way to becoming a fully integrated patient centered health care home. Such changes include

- Routine use of brief, structured rating scales for common mental disorders such as the PHQ-9 for depression to help with screening but more importantly to determine if patients started on treatment are improving as expected.
- Incorporation of such behavioral health rating scales into paper or electronic health records, creating a 'registry' function that allows PCPs and clinic managers to identify patients who are 'falling through the cracks' or not improving as expected.
- Stepped care and 'treatment to target' in which treatments (medications, psychosocial treatments, or referrals to mental health) are actively changed and adjusted until the desired health outcomes are achieved.
- Incorporation of evidence-based motivational interviewing strategies into patient encounters to help engage patients engage in and adhere to effective treatment for behavioral health problems. Both physicians and other office staff can be trained in these techniques.
- Training office-based personnel to help perform core support functions of behavioral health care managers such as proactive outreach and tracking of treatment adherence, medication side effects, referrals (if appropriate), and treatment effectiveness.
- Development of relationships and 'shared workflows' with behavioral health providers that are not simply referrals but include active dialogue and collaboration between the PCP and the behavioral health provider to ensure patients achieve the desired clinical outcomes.

These strategies are highly compatible with approaches to improve patient care and outcomes through patient centered medical homes.

Conclusion

Depression can be effectively treated in primary care settings using an evidence-based collaborative approach in which primary care providers are systematically supported by mental health providers in caring for a caseload of patients. Core components of effective collaborative care programs include a focus on populations of patients identified with depression, measurement-based care, treatment to target, and stepped care in which treatments are systematically adjusted and 'stepped up' if patients are not improving as expected. Such an approach can dramatically improve patient satisfaction and health outcomes. These principles of collaborative care are highly consistent with the notion of Patient Centered Medical Homes and Accountable Care and can help effectively position primary care practices for health care reform and coming changes in health care delivery and financing.

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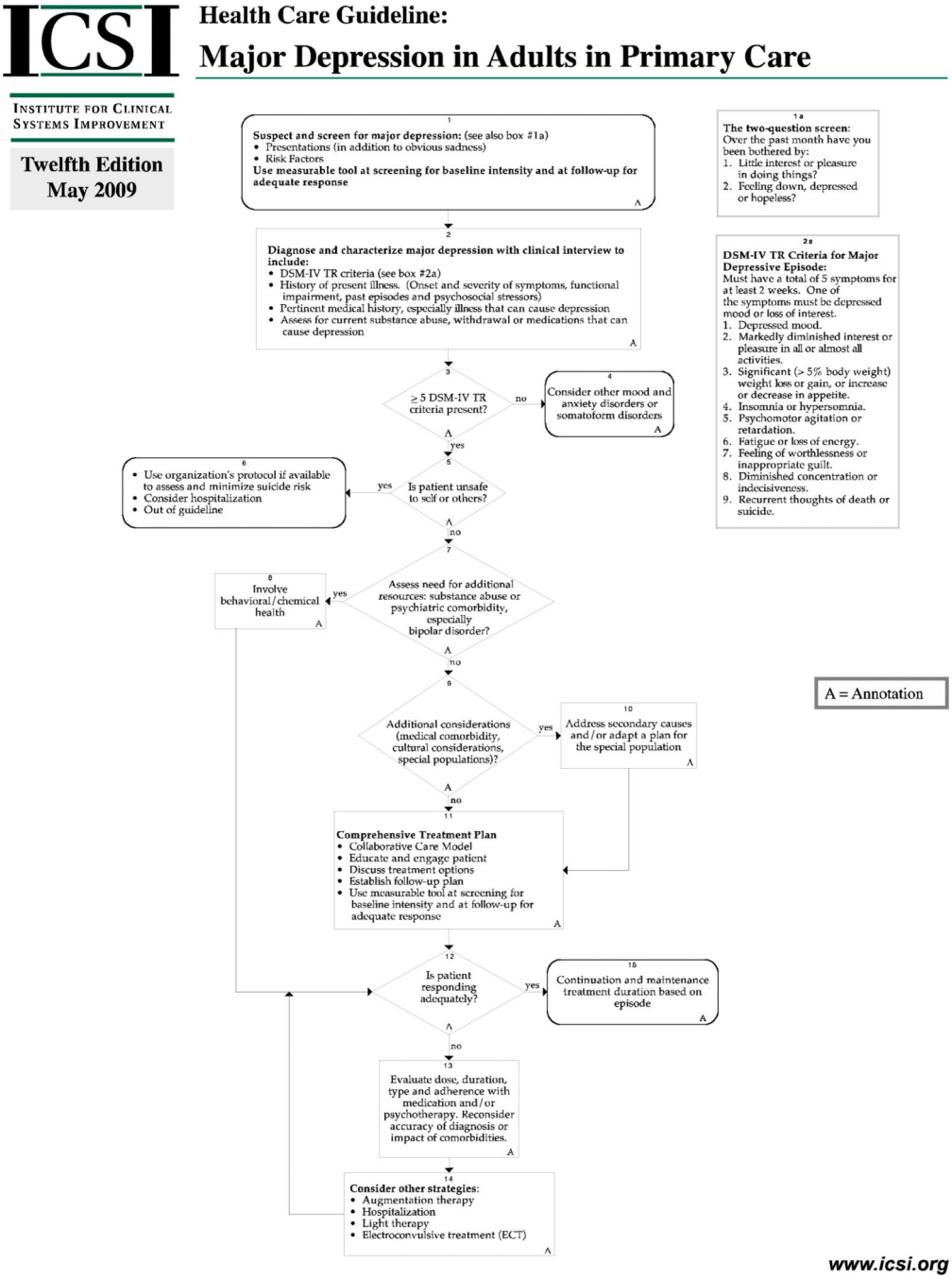

Figure 1.
ICSI Guideline for Major Depression in Adults in Primary Care

Table 1

Key Processes and Roles for Collaborative Care Team Members

PROCESS	ROLE	
	Depression Care Manager	**Psychiatric Consultant**
1. Systematic diagnosis and tracking of patient outcomes	Patient engagement, education / self management support Close follow-up to make sure patients don't "fall through the cracks"	Systematic caseload review. Diagnostic consultation on difficult cases
2. Stepped Care a)Change treatment according to evidence-based algorithm if patient is not improving b)Relapse prevention once patient is improved	Support medication management by primary care provider (PCP) Brief counseling (e.g., behavioral activation or problem-solving treatment in primary care) Facilitate treatment change / referral to mental health as needed Relapse prevention planning	Consultation focused on patients not improving as expected Recommendations to PCP for additional treatment or referral to specialty care

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Table 2

Stepped-care Activities for Depression in Evidence-based Collaborative Care Programs

Stepped Care Activity	Depression	Local Considerations
Patient Identification / Screening	Provider Referral or screening with PHQ-2 / PHQ-9.	•Who provides key treatment components: primary care provider, mental health staff in primary care, care manager, other? •Where are treatments provided? (e.g., what can happen in primary care clinic vs in referral center) •How do team members communicate & collaborate effectively? •Who is responsible for tracking patient and program outcomes? •How is psychiatric caseload consultation provided? •What kind of training and ongoing clinical support is needed for the program to succeed?
Patient Education and Engagement	Patient education. Shared goal setting. Screening for bipolar disorder and substance use.	
Close Follow-up and Behavioral Activation	Close telephone or in-person follow-up. Support of medical management. Behavioral activation strategies used at each contact.	
Medication Management prescribed by primary care provider with guidance from psychiatric consultant	Antidepressant medications. Anxiolytics and Hypnotics as clinically indicated.	
Evidence-based psychotherapy.	Problem-Solving Treatment in Primary Care (PST-PC) or other evidence-based psychotherapy (e.g cognitive behavioral therapy or interpersonal therapy).	
Community-based resources	Local community-based resources and support services	
Specialty Mental Health / Substance Abuse Referral and Treatment	Mental Health specialty care for severe or persistent depression or comorbidities (e.g., suicidal, dual diagnosis, psychotic).	

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