

# A Three-Component Model for Reengineering Systems for the Treatment of Depression in Primary Care

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*Depression in primary care is a chronic disease. As with most chronic diseases, long-term adherence to treatment plans is problematic. Evidence-based systems of care address this problem, but persistence and dissemination of systems after testing is a new problem. The three-component model for the care of patients with depression is a system of widely applicable, easily transported strategies and materials to address dissemination. The three-component model provides a series of routines (processes for structured diagnostic and follow-up-care with a time line) and division of responsibility, including a role for a telephone care manager. In the three-component model, clinician and office education create a prepared practice that is predisposed to providing evidence-based depression management. Enabling elements include the telephone care managers, who are trained to promote adherence to a management plan, and a supervising psychiatrist. The key reinforcing element is care manager reports about patient response to treatment. The three-component model is bound together by a common depression diagnostic and severity measure that facilitates communication and treatment decisions.*

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A variety of epidemiological studies have demonstrated the high prevalence of patients with depressive disorders in primary care.<sup>1–4</sup> Over one-half of all depression is treated in primary care practices. In 1993, the Depression Guideline Panel of the Agency for Health Care Policy and Research published recommendations for treating depression in primary care practice.<sup>5</sup> These recommendations were based primarily on studies conducted in the specialty mental health setting. Subsequently, Schulberg et al.<sup>6</sup> and Mulrow et al.<sup>7</sup> reviewed the literature of randomized controlled trials of subjects in primary care. They determined that both antidepressant pharmacotherapy and brief psychotherapies were efficacious in treating acute episodes when transferred from mental health to primary care settings. The growth of available antidepressants, such as selective serotonin reuptake inhibitors (SSRIs), has made it safer and easier for primary care physicians to treat depression, and the rates of persons receiving antidepressants has increased substantially.<sup>8</sup>

Despite this growth in knowledge and use of depression treatments, a high percentage of patients do not receive appropriate treatment, or if they do, will not continue with it a for sufficient time period.<sup>9,10</sup> Depression has increasingly proved to be a chronic disease. This is true for the acute phase, in which improvement in multiple dimensions continues over a 6–9-month period with treatment.<sup>5,11</sup> This is also true in the continuation phase, in which there

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is a substantial risk of relapse if treatment is discontinued.<sup>12-15</sup> For many, depression is also a chronic disease requiring maintenance-phase management over the long term because of the substantial risk of recurrent episodes.<sup>16-21</sup>

Primary care clinicians place a high priority on recognizing and treating their patients who are suffering from depression,<sup>22,23</sup> but the obstacles to addressing the problems of matching appropriate treatment and preventing relapse or recurrence are formidable. Barriers include time pressures, orientation of both clinicians and patients to presenting symptoms and acute problems, the limits of reimbursement, and the lack of well-organized mental health systems for clinician advice and patients' treatment in most primary care settings.<sup>22-27</sup>

A variety of recent randomized controlled trials<sup>28-32</sup> have demonstrated several innovations that form the basis of a system to help primary care clinicians overcome many of these obstacles and enhance the care they provide. These systems grow out of viewing depression as a chronic disease.<sup>33</sup> These trials demonstrated that when treatment guidelines are integrated into a practice with a multifaceted and longitudinal treatment approach, significant improvements in guideline-concordant care and patient outcomes result. The recent randomized controlled trials reveal that the intervention systems are superior to usual care. The system changes resulted in absolute improvement in treatment adherence (9% to 50%) over usual care and in better patient outcomes of 7% to 19%. The incremental cost-effectiveness per depression-free day for persons with major depression in these systems ranged from \$12 to \$52 per day.<sup>34-36</sup> The costs at the higher range are associated with treating the more difficult patient with persistent depression<sup>36</sup> or higher medical services use.<sup>35</sup> The components of successful system interventions are multifaceted,<sup>10</sup> including various combinations of physician education, patient education, a patient registry, care management, tool kits, and an enhanced mental health care interface.

A major problem is the lack of persistence and dissemination of system changes after continuous quality improvement or research implementation is completed. Despite physician and patient satisfaction and improved patient outcomes, without administrative support and intermediary or central funding for continuation of practice procedures reengineered by research projects, these systems revert to their previous state.<sup>37-39</sup>

To take system changes to the next level of dissemination, practice reengineering needs to have a relatively low cost and be feasible at the community practice level

without the aid of a research infrastructure. A "turn-key" system consisting of a manualized, widely applicable, easily transported set of implementation strategies and materials is one approach. To be effective, this approach requires an empirically based logic that is face valid. Simple diagnostic and treatment monitoring tools that can be used throughout the course of chronic illness are also needed.

Office system changes have been devised that establish routines, divide responsibilities among members of a practice, and select appropriate tools to accomplish tasks.<sup>40</sup> Such office systems have been shown to improve performance of preventive services in earlier primary care research.<sup>41,42</sup> The PRECEDE model<sup>43</sup> has proven useful in understanding and implementing clinician behavior change. In this model, interventions are seen as predisposing, enabling, or reinforcing behavior change. A systematic review of education for clinicians already in practice found that interventions combining these elements are more likely to change behavior than single-component interventions.<sup>44,45</sup> This article presents the elements of an approach adapted for depression care that requires only modest resources so that intermediary organizations, such as medical groups, health plans, and others, can use these principles and materials to enhance depression care. This approach is called the three-component model. The PRECEDE model provides a theoretical framework that guides the three-component model of depression care on the basis of evidence as well as the process of change by which practices are reengineered.

### THREE-COMPONENT MODEL OF DEPRESSION CARE

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The three-component model of depression care includes a prepared practice, care management, and enhanced mental health support. Each will be described. These components are consistent with recommendations of the Agency for Health Care Policy and Research and APA<sup>46</sup> to perform careful diagnostic assessment, involve patients in treatment decisions, monitor clinical response, and modify treatment as necessary. The three-component model updates the recommendations of the Agency for Health Care Policy and Research and APA to reflect recent research that has demonstrated the value of telephone support by trained staff for patients<sup>47</sup> and use of a diagnostic and monitoring tool to aid in assessment of diagnosis, symptom severity, and treatment response.<sup>48,49</sup> Too often, usual care of depression in primary care involves an unstructured relationship between a patient, a physician, and mental health resources. The concept of the

three-component model includes a collaborative team with structured communication that is organized through a care manager to work with and for the patient.

#### A Prepared Practice

A prepared practice refers to education for both primary care clinicians and office staff about augmented Agency for Health Care Policy and Research guidelines, the skills needed for use of a depression diagnosis and response measure, and the use of communication forms and routines. A 2-hour clinician education session and a 30-minute office staff in-service training session provide the minimum necessary initial forums and are acceptable to the average practice for education and to introduce the other components—the care manager and the psychiatrist—to the practice. The focus is more on the process of the three-component model for depression care than on specific therapies. However, emphasis is given to simplified diagnostic distinctions and suicide risk assessment.

The educational plan for the prepared practice includes three types of activities: predisposing, enabling, and reinforcing.<sup>43–45,50</sup> The effectiveness of an initial predisposing program is increased by active teaching and learning,<sup>51</sup> including use of a videotape (showing a primary care physician modeling the major process tasks) and role playing by the clinicians. With respect to teaching psychiatry in primary care, it is valuable to have an expert in primary care who is also an expert in mental health. Instruction is best performed by a primary care physician or a psychiatrist with substantial experience in primary care. As pointed out by Engel,<sup>52</sup> the most successful teaching that psychiatrists can do is training nonpsychiatrists to teach.

It is clear that simply imparting “predisposing” knowledge alone is rarely effective at changing physician behavior.<sup>44,50,53</sup> Abundant research in fields outside of medicine demonstrates the importance of reinforcement of material that is initially taught.<sup>54–57</sup> Accordingly, before starting to use the three-component model, the prepared practice runs through a “paper case” to be sure that the basic concepts of the new system are understood. Copies of forms used to present diagnostic distinctions and suicide risk assessment in the predisposing initial session are placed in folders in each examination room and thus become enabling tools. Once started, the three-component model also provides reinforcement by “electronic academic detailing,” that is, feedback about patients entered into care management that is reviewed by the psychiatrist. Clinicians receive individual feedback from the psychiatrist indirectly on care

manager report forms or directly from the psychiatrist via e-mail, fax, or telephone about specific patient management issues. Group e-mail or faxes from the psychiatrist also reinforce common system issues. In addition, reinforcement occurs by means of a 30–60-minute booster session 2 to 3 months after the three-component model has been in place. This provides an opportunity for clinicians to talk about problems with implementation and how to solve them. Specific clinical needs are identified through weekly care management case reviews—for example, about psychopharmacology—and are addressed in questions about brief case vignettes that are presented at the session.

#### Care Management

Low adherence to prescribed medical interventions is ubiquitous. Adherence and treatment outcomes can be improved by care management interventions that, at a basic level, ensure that a treatment plan is being followed, assess symptoms and side effects to determine the need for treatment plan alteration, and educate patients about their disease and its treatment, including self-management.<sup>58,59</sup> For depression, there is a spectrum of care management intervention intensity and cost. The spectrum ranges from a fixed number of highly structured telephone calls<sup>29,31</sup> to specially trained depression specialists capable of providing limited versions of in-person psychotherapy.<sup>60,61</sup>

Care management may be delivered either by a central telephonic model serving multiple practices or by a local model with a geographic presence within the practice that makes use of internal or shared personnel. In general, internal and face-to-face care management is more costly. In addition, relieving internal personnel of their previous responsibilities usually proves difficult. Care management limited to the basic level of the three-component model requires less training or specific specialty background and can be applied to chronic diseases other than depression.

While the three-component model is designed to be applicable to a wide variety of practices, it is particularly suitable for small community practices. Accordingly, in the three-component model, care management is usually centrally based and consists of at least acute- and continuation-phase telephone calls. Acute-phase calls are a minimum series at 1, 4, and 8 weeks after patient enrollment. Additional follow-up calls are provided as needed to answer patient questions, to promote adherence to the clinician’s management plan, and to help patients overcome any barriers to adherence. For example, if a patient hasn’t filled a prescription for an antidepressant by the 1-week call, the

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care manager is trained to ask about and address barriers, such as side effects, knowledge deficits, or cost, and to call again in a few days to confirm that the prescription had been filled. Brief, less frequent contacts occur once a patient enters the continuation phase (e.g., calls every 2 months) or maintenance phase (e.g., calls every 6 to 12 months). This care manager role is structured to fit the skills of a practice medical assistant or centrally based staff person with telephone triage experience but does not require specialty diagnostic or management skills or psychological counseling abilities. The psychiatrist and clinician need reminding about this and to learn to be limited and specific in requests they make of the care manager. The critical functions for the care manager in the three-component model are the ability to encourage adherence, administer a treatment response measure, and communicate the results with the other members of the three-component model.

The care manager's function requires the use of a paper or electronic registry (a computer with commonly available spreadsheet or database software) to track patient improvement, to be reminded about when to call patients, to provide feedback to primary care clinicians, and to set an agenda for mental health supervision.

### Mental Health Interface

Enhanced mental health support in the three-component model is informed by earlier research.<sup>10</sup> As with care management, there is a spectrum of mental health interfaces that can range from a psychiatrist or psychologist seeing every patient<sup>62,63</sup> to a psychiatrist or psychologist doing telephone supervision of care managers.<sup>28,29,31</sup> In the three-component model, a psychiatrist performs three major services: supervising care managers by telephone, providing informal consultation to primary care clinicians, and increasing the quantity and or quality of mental health referral resources. Crucial to supervising the care manager is having a depression symptom response measure with guidelines for what constitutes both a satisfactory initial response and a remission.

In view of the relative shortage of psychiatrists, their higher costs, and the absence of a need for every depressed patient to see a psychiatrist, Goldberg and Gournay<sup>64</sup> recommended that there be "link workers" between mental health providers and primary care clinicians. This is an efficient way to leverage the specialist's skills through triage and selective referral. The care manager performs this linkage function in the three-component model. In order to provide this link with confidence and safety, care managers

require regular and systematic supervision by a mental health expert. In the three-component model, a psychiatrist can usually perform weekly telephone supervision of care managers in a 1-hour conference call. The system thus requires funding of a psychiatrist for a minimum of 1 hour per week to review appropriate cases (new cases, problem cases, or those not showing a response or achieving remission) from a registry of up to 200 patients across all phases of treatment (acute, continuation, maintenance) and approximately 1 half-hour per week to contact physicians by phone, fax, or e-mail for informal consultation about patients in the registry. By review of the patient registry, it is possible to ascertain treatment patterns, such as low antidepressant dosing strategies, and to make general or specific comments to clinicians. Clinicians are also able to contact the psychiatrist for questions about individual patients, whether or not they are entered into the system.

A number of depressed patients seen in primary care have complex psychosocial problems and can benefit from co-treatment with a mental health professional. Because communication barriers commonly exist between the primary care clinician and the mental health specialist,<sup>65,66</sup> another role of the supervising psychiatrist is to improve communication. This may be accomplished by a range of activities from simply encouraging the routine use of written release of information forms to organizing a breakfast or lunch meeting between primary care and mental health care clinicians.

When referral to a mental health specialist is required, many patients prefer being seen by a mental health professional in the primary care setting.<sup>67</sup> Approximately 25% of primary care practices have at least part-time availability of mental health counseling on site.<sup>22</sup> For the majority of practices that do not have such services available, the supervising psychiatrist can assist in developing a resource directory by using a one-page survey of primary care clinicians about the mental health professionals they have used, the services they provide, and the satisfaction and outcome of patients referred.

The combination of the care manager and the supervising psychiatrist is a potent enabling force. The resources and backup they provide the primary care clinician allow the clinician to be more aggressive in making depressive diagnoses and confident in managing these patients.

### A TOOL TO BIND THE THREE COMPONENTS

As described, the care manager plays a central role in connecting the different parts of the three-component

model. In order to effectively perform this role, an easy-to-understand and administer diagnostic and treatment response measure is necessary.<sup>68,69</sup> A valid and reliable self-report measure does not require specific mental health clinical expertise to administer. With periodic readministration, a self-report measure provides relatively objective information for the psychiatrist and care manager to determine whether changes in the treatment plan are indicated. In addition, use of a depression response measure, along with a care manager consulting with a depression expert, places the three-component model squarely on the principles of chronic-disease management for other medical diseases, such as diabetes, asthma, and congestive heart failure. Thus, care managers can more readily move from one disease-management process to another or simultaneously be involved in more than one process.

There are a variety of depression self-report measures that might be used as treatment-response measures.<sup>70-72</sup> In general, the available measures have been designed for use as screening instruments in specialty populations and not for use as diagnostic tools or treatment-monitoring measures for primary care. The 10-item depression scale of the Patient Health Questionnaire<sup>48</sup> is a major advance in that it was developed in and for primary care, its items come directly from the DSM-IV criteria for major depression, and it provides a severity measure that can be repeated to guide treatment decisions.<sup>30,49</sup> The sensitivity and specificity of the PHQ-9, with a mental health clinician's diagnosis as the standard, compare favorably with structured psychiatric interviews.<sup>48</sup> A recent review of case-finding measures for depression gave this scale a high rating for both operating characteristics and utility.<sup>69</sup>

#### THE PROCESS OF CARE

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A system of care is an organized set of processes created explicitly to ensure that a patient-care action occurs more consistently than would be likely if it depended entirely on the attitudes, memory, and clinical situations of individual practitioners or patients.<sup>23</sup> As shown in Table 1, the process of care for detecting and managing depressive disorders in primary care can be divided into several steps. As suggested in Table 1, the process of depression care is relatively complex when fully implemented and thus would benefit from an organized system.

Figure 1 illustrates the typical timing of these steps in an uncomplicated case of major depression. It is important to note that recognition of depression may occur over several visits, particularly if a patient has multiple somatic

complaints, a complex history, or is reluctant to accept a depression diagnosis. For medication management, one initial "adherence" call by the care manager may be sufficient. Other patients may require more frequent calls if there are side effects or if the dose is being increased. The actual number and timing of acute-phase follow-up visits by a clinician will vary depending on depression severity, clinician practice style, response to treatment, and patient preference. At a minimum, additional care manager calls occur after 4 weeks of adequate treatment to ascertain if there has been a satisfactory initial treatment response and at 8 weeks to ascertain if remission has been achieved. In the three-component model, more important than the number or precise week of the care manager call is that the calls be completed before a patient is seen by the clinician in order to provide the clinician with timely information to assist in treatment decisions. Current guidelines specify at least three primary care or mental health visits over the first 12 weeks of care management, in addition to the initial visit. The combined typical contacts from the clinician and care manager illustrated in Figure 1 meet the follow-up requirements recommended in the guidelines of the Agency for Health Care Policy and Research<sup>5</sup> and exceed the requirements of the National Committee on Quality Assurance Health Plan Employer Data and Information Set<sup>79</sup> if phone contact is counted.

Although there is variability in the number and timing of contacts and in the division of tasks for any individual patient, the goal for all patients is to help them achieve and remain in remission. To this end, depression treatment is divided into three major tasks: obtaining a treatment response, achieving remission, and maintaining remission. By periodic assessment with the PHQ-9, clinicians using the three-component model make more systematic and informed decisions about continuing, modifying, and maintaining treatment.

#### IMPLEMENTING THE THREE-COMPONENT MODEL

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The majority of primary care physicians accept the responsibility of treating depression.<sup>22,23</sup> They are ready to entertain more organized monitoring and follow-up and collaboration with mental health specialists, as long as the issues of care complexity, role clarification, and costs can be worked out. These issues can be addressed through either an internal process or an external consultation.<sup>23</sup> Most primary care practices are small and lack the time and resources for internal, continuous quality-improvement

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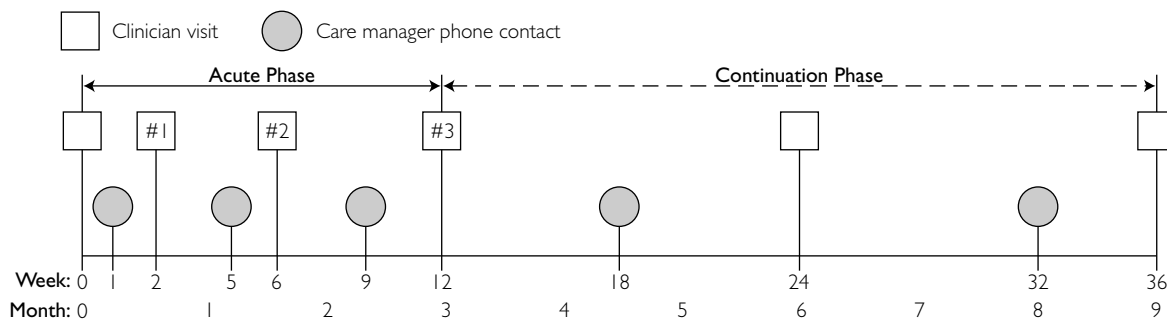
methods. The three-component model is designed for an external consultation approach in which an intermediary (e.g., a management group, an insurer, or an employer) has administrative data suggesting reasons (costs, outcomes,

compliance with the requirements of the National Committee on Quality Assurance Health Plan Employer Data and Information Set) to finance and facilitate change in affiliated practices. This approach, based on successful pri-

**TABLE 1. Steps of the Depression Care Process in the Three-Component Model for Reengineering Systems for the Treatment of Depression in Primary Care**

Step	Evidence Base
1. Recognition and diagnosis	
Be alert for symptom presentations ("red flags") associated with depression	Agency for Health Care Policy and Research (AHCPR) guidelines (5, 73)
Systematically make a specific depression diagnosis	Williams et al. (69)
Use a measure to quantify baseline severity of depression	AHCPR guidelines (5, 73); Brody et al. (74)
Assess suicide risk	AHCPR guidelines (5, 73); APA depression guideline (46)
2. Initial treatment	
Elicit prior treatment history; consider coexisting psychiatric and medical conditions	AHCPR guidelines (5, 73); APA depression guideline (46)
Elicit patient treatment preferences	AHCPR guidelines (5, 73); APA depression guideline (46)
Provide key educational messages	AHCPR guidelines (5, 73); APA depression guideline (46)
Set self-management goals	Williams and Whitfield (75); Febraro and Clum (76); Ludman et al. (77)
Explain and recommend care management; set time for first call	VonKorff and Goldberg (10)
3. Care management	
Provide educational materials	Ludman et al. (77); Robinson et al. (78)
Make initial call(s) for treatment initiation/adherence	VonKorff and Goldberg (10)
Make follow-up calls using severity measure to assess treatment response	VonKorff and Goldberg (10)
Review care with supervising psychiatrist and treating primary care physician	VonKorff and Goldberg (10)
4. Acute phase clinical follow-up	
Coordinate clinician office visits with care management contacts	VonKorff and Goldberg (10)
Evaluate patient response to treatment	AHCPR guidelines (5, 73); APA depression guideline (46)
Modify treatment if suboptimal response	AHCPR guidelines (5, 73); APA depression guideline (46)
Strive for remission	AHCPR guidelines (5, 73); APA depression guideline (46)
5. Continuation and maintenance phase care	
Monitor treatment response less frequently after remission	AHCPR guidelines (5, 73); APA depression guideline (46)
Continue treatment for 4–9 months to prevent relapse	AHCPR guidelines (5, 73); APA depression guideline (46)
Assess risk factors for relapse; continue long-term treatment for high-risk patients	AHCPR guidelines (5, 73); APA depression guideline (46)

**FIGURE 1. Frequency of Contacts by Clinician and Care Manager in a Typical Case of Major Depression in the Three-Component Model for Reengineering Systems for the Treatment of Depression in Primary Care<sup>a</sup>**



<sup>a</sup>Standards of care of the National Committee on Quality Assurance Health Plan Employer Data and Information Set (based on guidelines of the Agency for Health Care Policy and Research) suggest three clinician visits during the acute phase of treatment. In the three-component model, clinician visits initiate and modify management as needed. Calls by the care manager promote adherence, provide patient education, and monitor response. Care managers and clinicians communicate after each patient contact.

mary care efforts at improving preventive services, involves five steps. First, key personnel are identified to fill the necessary roles: a care manager, a psychiatrist, and a practice opinion leader who recognizes the need to change depression care management by implementing a system change. Second, a clinical leader experienced in the system change provides academic detailing and education about the system to the practice. This education includes introduction to, and practice with, the necessary tools (e.g., the PHQ-9, patient education materials, care management referral forms). Third, office staff training and participation are necessary to determine where tools will be kept and how they will be exchanged. Fourth, primary care clinicians agree to try the new system and receive additional education by feedback from the care manager and informal consultation from the supervising psychiatrist. Finally, after a specified period, the intermediary facilitates a review of the process with the practice to assess adherence and determine modifications. Using administrative data and patient satisfaction surveys, the intermediary determines whether or not to continue funding the system.

For any system change such as the three-component model to be successful, it is necessary to have substantial administrative support, strong physician leadership advocating the change, and the use of credible data for feedback.<sup>80</sup> In addition, caution is necessary initially to avoid prematurely implementing a systematic increase in detection, as may occur with population screening. Without a treatment system in place, patients and clinicians may become frustrated that screening is just one more task for which nothing is carried out. Similarly, some capacity for accepting all referrals to the system without inappropriately increasing costs is necessary. In research implementations of system change, patient eligibility is often restricted to those with major depression, a condition that is actually less prevalent than other forms of depression in primary care.<sup>3,81-84</sup> If a system change is not generalizable to the bulk of patients, it becomes burdensome. At the same time, intermediaries will have less incentive to help fund system changes if, for example, pharmacy costs increase inappropriately. Thus, attempts at using "watchful waiting" with reassessment for milder depression must be incorporated.<sup>85</sup>

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## IMPLICATIONS

Most patients with depression first seek care for their symptoms in the general medical setting rather than in the mental health sector, and two-thirds or more of such patients receive treatment for their depression exclusively

or predominantly in the general medical setting. Efficient methods for detecting depression as well as newer antidepressants have facilitated the evaluation and management of depression in primary care. However, because visits to primary care are necessarily brief and there are competing demands of caring for other medical problems, systemic changes are necessary to optimize the management of depression in primary care. Two crucial partners in this process are a care manager to assist in patient education and treatment monitoring as well as a mental health professional to provide consultative and collaborative care for more complex cases. Numerous studies have shown that reinforcing the efforts of the primary care clinician with these additional partners substantially improves patient outcomes over that that can be achieved by usual care alone.

Although the evidence base for this practical, three-component model is sufficient to advocate its wide use, there are important policy issues that affect dissemination. First, there are reimbursement issues. Specifically, who is responsible for funding the care manager and mental health specialists' services? What will influence intermediaries to initially pay for these services? Are there hidden costs that will undermine the system? There is a higher cost of systems such as the three-component model, estimated at approximately \$150 per patient during the acute phase. However, care management alone does not result in a marked increase in specialty referrals. For example, less than 10% of the patients entered into the IMPACT system of care are referred to a psychiatrist for specialty treatment, as opposed to care management supervision.<sup>60</sup> Insurers, government agencies, and employers need to consider the modest costs in light of improved patient outcomes, including work productivity.<sup>86</sup> Telephone contacts have been found to be an effective means of providing some of the core aspects of care management for both medical disorders as well as depression.<sup>47,59</sup> However, clinical services provided through telephone contacts are not yet reimbursed by many third-party payers. Likewise, mechanisms for reimbursing the type of supervisory and informal consultative services provided by the psychiatrist in the three-component model require advocacy. The minimal weekly cost of 1.5 hours per week of a psychiatrist's time to treat 200 depressed patients in the three-component model is far more efficient than current usual or specialty care.

A second issue with the three-component model relates to integrating depression care into the chronic-illness model developed and disseminated by Wagner and colleagues<sup>33</sup> for medical disorders such as congestive heart

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failure, diabetes, and asthma. For many patients, depression is not simply an acute disease but is rather more akin to other chronic conditions that go through stable periods of varying duration interspersed with acute exacerbations of variable severity. The application of this model to depression care is therefore appropriate. Moreover, many chronic medical disorders are associated with a higher risk of comorbid depression. Thus, emphasizing detection of depression in medical disease management programs and incorporating the three-component model in disease management programs for patients in whom depression is diagnosed would result in a more efficient and integrated system of managing comorbid medical and mental disorders.

A third issue in adopting the three-component model is addressing any medical-legal concerns. Defining the scope and privileges of the care manager working in conjunction with the primary clinician is essential and must take into account any differences that exist among various jurisdictions. Also, documentation and legal requirements must be specified for the supervisory and consultative services that the mental health specialist provides for both the

care manager and primary care clinician. For most organizations, some form of written consent by the patient is necessary. When administered for clinical care, as opposed to research, this consent need not be burdensome.

In summary, there is a strong evidence base for the three-component model, and there is a substantial clinical need for this type of system enhancement of depression care. Disseminating the concepts and tools of the three-component model to clinical practices, while addressing the policy implications at the level of payers and regulators, holds considerable promise for improving the care of the large numbers of depressed patients receiving care in the general medical sector.

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