

# Introduction to the Hepatitis C Resource Center Program

**Michael Rigsby, MD**  
**National Hepatitis C Program**



## Background

The Hepatitis C Resource Center (HCRC) program was created to take advantage of the expertise and experience of field-based VA personnel to improve the quality of hepatitis C care throughout the VA system. Specifically, the HCRC program is charged with providing “clinical leadership and high quality services, products, and programs to the entire VA health care system in the areas of hepatitis C patient education, clinician education, clinical care delivery prevention, and program evaluation” (VHA Notice 2001-02: Solicitation for Applications to Establish Hepatitis C Field-Based Resource Centers).

## Selection process

All VA facilities were invited to submit applications for the HCRC program. Over twenty complete applications were received. An expert peer review group, consisting of leaders in hepatitis C from other government agencies, VA facilities, other health care systems, and patient advocacy groups, met for 2 days in November 2001 to review the applications. Based on the scores of the peer review panel, four sites were selected for funding.

## The Hepatitis C Resource Centers

Northwest HCRC (VA Puget Sound and Portland VA Medical Center)  
*Jason Dominitz, MD, director*

San Francisco HCRC  
*Teresa Wright, MD, director*

VA Connecticut HCRC  
*Guadalupe Garcia-Tsao, MD, director*

Minneapolis HCRC  
*Samuel Ho, MD, director*

## Work of the HCRC program

The HCRC program is primarily concerned with helping VA medical centers translate medical and scientific knowledge about hepatitis C into effective clinical practice. They act both to produce products and services of immediate value for improving care and to develop innovative approaches in their own facilities that, if successful, can be exported for other facilities to implement.

Based on the initial applications and early meetings of the HCRC leadership, themes emerged that have guided the initial work of the four centers. These are:

- Improving access to care for those historically excluded from antiviral treatment
- Attention to the needs of patients with early and late-stage hepatitis C disease
- Strategies to improve screening, testing, and evaluation
- Creation of multidisciplinary team care approaches to hepatitis C care

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Although only in existence for a little over a year, the HCRC's have already begun producing impressive and effective products. Some of these will be highlighted in the presentations that follow.

### **A partial list of products and services from the HCRC program**

- Program to improve utility of Hepatitis C Clinical Reminders in the electronic medical record
- Survey of current practices related to hepatitis C care in VA
- Toolkit for creation of patient support groups
- Motivational interviewing skills for hepatitis clinicians
- Cost analysis of hepatitis C diagnostic testing algorithms
- Study of prophylactic antidepressant treatment before hepatitis C therapy
- Workshops for transplant coordinators and transplant center staffs
- Analysis of national study of hepatitis C treatment eligibility and outcomes
- Training for clinical pharmacists working in hepatitis C care
- Tools to improve rates of vaccination for hepatitis A and B
- Satellite teleconference on HIV and hepatitis C co-infection
- Care models for co-infected patients
- Manual for management of psychiatric and substance use disorders
- Hepatitis C patient focus groups
- Toolkits for implementing multidisciplinary care models
- Personal Digital Assistant ("Palm Pilot") program for treatment algorithms
- Pretreatment educational and adherence intervention
- Best practice models for treating patients with substance abuse or psychiatric illness
- Electronic and group formats for patient education

# Assessing Knowledge and Needs among Veterans Living with Hepatitis C

Kristy Straits-Tröster, PhD  
Northwest Hepatitis C Resource Center



## Key points

- Understanding patients' knowledge and beliefs about hepatitis C is essential for designing effective educational services
- Patients who attend group education classes or are seen in liver specialty clinics have better understanding of hepatitis C
- Recent substance abuse affects both symptoms related to and patients' knowledge about hepatitis C
- Patients identified a number of services they would find useful in dealing with hepatitis C infection.

Like other chronic diseases, hepatitis C has profound implications for those who are affected. There are many things infected individuals can do that will lower their risk of disease complications and improve their quality of life. Understanding what patients know and believe about hepatitis C and the impact of the disease on their lives will help the Hepatitis C Resource Center (HCRC) program to develop effective patient-oriented products and services.

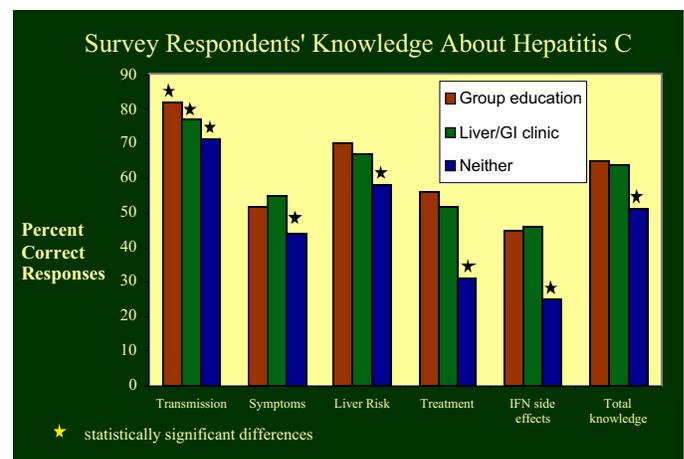
The HCRC program jointly located in the Seattle and Portland VA medical centers has recently conducted a Hepatitis C Patient Health Survey. The goals of the survey were to:

- Determine the levels of knowledge about hepatitis C
- Determine the impact of patient education and of recent substance abuse on hepatitis C knowledge
- Assess the psychosocial health care needs and preferences of patients living with hepatitis C

Over 1,000 hepatitis C-infected veterans seen at the Puget Sound Health Care System between 1994 and 2002 were invited to participate. Eventually, 848 of these responded to the survey. The average age of the respondents was 52 years. Almost half had some college education; however, only 24% were employed full or part time.

The responses were divided based on whether the respondents had ever attended a hepatitis C group education session, had been seen in a specialty clinic for gastrointestinal (GI) or liver diseases, or had no contact with either group education or specialty care for hepatitis.

Consistently, those who had attended group education classes or had been seen in a specialty clinic had higher levels of knowledge about hepatitis C and its treatment.



The survey specifically addressed the impact of recent substance use on symptoms as well as on hepatitis C knowledge. Substance abuse disorders are common among people with hepatitis C, so this may be an important factor to consider in designing programs to improve knowledge and self-management skills. Approximately a

third of the respondents to the survey had scores on substance use questions that indicated abuse of drugs or alcohol in the past year. These respondents were significantly more likely to have high scores for depressive symptoms, to smoke cigarettes, to report insufficient food availability and to be homeless. In addition, the patients with recent substance abuse had significantly lower scores for hepatitis C-related knowledge. Substance abuse definitely has a big impact on mental health, social factors, and knowledge levels that may be crucial for effective management of hepatitis C.

### Services most frequently desired by survey respondents

- Individual hepatitis C counseling
- Smoking cessation services
- Hepatitis C support groups
- PTSD and hepatitis C groups
- Exercise group for hepatitis C

Finally, the survey asked veterans with hepatitis C about the services they would find useful. Over 70% of respondents felt that additional individual counseling about hepatitis C would be useful. Support groups, education groups, and family support were also endorsed by large numbers of respondents.

In summary, the survey found that hepatitis C knowledge varies considerably among those who are infected and that some important knowledge deficits exist. Both group education interventions as well as individual education provided in GI or liver specialty clinics are associated with higher levels of hepatitis C knowledge. Recent substance abuse was found to have wide-ranging impact on patients with hepatitis C. Respondents to the survey had interest in a number of potentially useful services, many having to do with education and support.

The implications of this survey are important for the future work of the Hepatitis C Resource Center program. They confirm the value of group or individual education and point out areas where more attention should be focused. Current plans include the development and dissemination of materials for use in education group settings. The specific needs of patients with substance use disorders will also need to be incorporated into patient-focused projects having to do with knowledge and disease self-management skills. Most of all, the survey confirms our belief that it is important to take the time and make the effort to include veteran patients in their own health care. Knowledge is an important first step in learning to cope effectively with hepatitis C.

### Support groups for veterans with hepatitis C

*Support groups for patients, and sometimes their families, are frequently helpful for those living with chronic diseases. Many VA facilities have started support groups specifically for those affected by hepatitis C. The Hepatitis C Resource Center program is working to document strategies that have led to successful support groups and to develop tools to assist other VA's in starting support groups. Lessons learned so far emphasize the importance of incorporating the wishes and priorities of the veteran participants in decisions about time of meetings, location, and structure of the groups. Some very successful groups have combined structured presentation of information from local experts with less formal discussion with other patients who have successfully dealt with issues such as medication side effects, or the frustration of not responding to treatment. Reminder calls to participants and the provision of healthy snacks at meetings are strategies to encourage attendance. Most of all, it seems imperative for group organizers to constantly engage participants in the collective process of setting goals and to check in frequently with participants to see how things are working.*

# Developing Treatment Recommendations

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San Francisco Hepatitis C Resource Center



## Key points

- Hepatitis C treatment encompasses many type of medical care.
- VA's treatment recommendations are comprehensive, with updated medical information, research results, specific recommendations on many aspects of hepatitis C management, and detailed references for further information.
- The largest part of the treatment recommendations deals specifically with anti-hepatitis C virus (antiviral) drug therapy; all patients are potential candidates for this treatment.
- All approved drugs and formulations of drugs used for hepatitis C treatment are available on the VA national formulary. VA has an excellent track record of making new drugs available quickly.
- Over 30% of veterans with HIV are also infected with hepatitis C; the area of co-infection is a major research priority in the fields of HIV and hepatitis C.

## Background

Hepatitis C treatment encompasses many types of medical care. For patients who have little or no liver damage from hepatitis C the approach may be one of keeping the liver healthy and watchful waiting to see if the hepatitis C disease progresses. For patients with more advanced liver disease, anti-viral therapy is indicated. For patients with advanced cirrhosis, prevention and management of the complications of severe liver disease and consideration for liver transplant are the highest priority. In all cases, patients may need evaluation and treatment of other medical and psychiatric problems.

## What are treatment recommendations and how are they used?

VA's "Treatment Recommendations for Patients with Chronic Hepatitis C" is a comprehensive document containing:

- Up-to-date medical information
- Results of recent research
- Specific recommendations pertaining to many aspects of hepatitis C management
- A detailed list of references for further information.

One way the recommendations are used is to establish a more uniform standard of care. VA is a large health care system of great diversity, and includes both large, city-based VA medical centers and small hospitals and clinics away from population centers. Yet there should be consistency in the quality of care a veteran with hepatitis C receives regardless of where he or she receives that care. Treatment recommendations can help to improve the quality of care veterans receive and to decrease inconsistencies in care from one facility to another.

## Limiting Liver Disease *Without* Interferon/Ribavirin Therapy

What can patients do to limit the amount of liver damage from hepatitis C?

1. Limit alcohol consumption
2. Avoid other liver toxins
3. Maintain a healthy lifestyle and healthy body weight
4. Stop smoking
5. Get vaccinated against hepatitis A, hepatitis B

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Treatment recommendations also provide information so that health care providers can tailor treatment to patients' individual needs. VA's hepatitis C recommendations are not rigid protocols. While specific doses and schedules for medications are included, there is also information about alternative approaches and exceptions to usual practice.

VA's hepatitis C treatment recommendations also address some of the controversial areas of hepatitis C care, such as the treatment of patients with normal liver enzyme tests. While individual, well-informed medical professionals may come to different conclusions about the right approach to such situations and there is insufficient information to justify strong recommendations in some cases, medical providers and their patients can benefit from having the most up-to-date information. Treatment recommendations serve as a summary of the best available information.

Finally, our treatment recommendations should be considered a "living" document. Hepatitis C treatment is a rapidly evolving field. New information is incorporated as quickly as possible in revisions of the recommendations. The document is maintained primarily in electronic format, posted on the VA's hepatitis C web site ([www.va.gov/hepatitisc](http://www.va.gov/hepatitisc)). Print versions are produced and circulated periodically when the recommendations have undergone significant updating.

### **How are the recommendations developed?**

The development of treatment recommendations is the responsibility of the Hepatitis C Resource Center program along with the National Hepatitis C Program Office. Expert clinicians with extensive experience in hepatitis C review all the available scientific and medical literature as well as the recommendations of agencies such as the National Institutes of Health, the Centers for Disease Control and Prevention, and the Food and Drug Administration. Based on all this information, a set of recommendations is drafted and reviewed by the directors of each of the Hepatitis C Resource Centers and the national program office staff. Changes and suggestions are incorporated into a second draft that is reviewed by members of the Technical Advisory Group (TAG) for hepatitis C. The TAG is a group of clinicians representing a diverse set of medical disciplines in VA centers around the country. The TAG may make further suggestions and changes before giving final approval to the recommendations.

### **Management of cirrhosis**

Management of late stage complications of liver cirrhosis is an area of crucial importance to hepatitis C treatment, and one in which there is a large body of existing information. A separate set of recommendations dealing specifically with this area has been developed and approved by the hepatitis C TAG. These recommendations for management and prevention of the complications of cirrhosis will be disseminated to VA clinicians later this year.

### **Antiviral drug therapy for hepatitis C**

The largest part of the treatment recommendations deals specifically with anti-hepatitis C virus (antiviral) drug therapy. Current treatment consists of interferon and ribavirin given for 6 to 12 months.

All patients are potential candidates for antiviral treatment. Currently available antiviral therapy has the potential to eradicate, or "cure," hepatitis C infection in approximately half of those treated. These results were attained in clinical trials that also increased understanding about which patients are most likely to have good outcomes from treatment. Because antiviral drugs have potentially serious side effects, the pros and cons of antiviral therapy must be carefully weighed in each patient.

Those most likely to benefit include patients with at least a moderate degree of liver damage. This can only be assessed adequately with a liver biopsy. The biopsy removes a small piece of liver tissue that is examined with a microscope. A standard scoring system is used by a pathologist to characterize the amount of liver inflammation and fibrosis. The treatment recommendations suggest obtaining a biopsy whenever possible before deciding about antiviral therapy.

Patients with very mild liver damage have a good prognosis and may decide to defer treatment. Patients with cirrhosis on their biopsies may still benefit from anti-HCV treatment as long as they are clinically stable.

Some patients may wish to be treated even with very mild liver damage. This may be a reasonable choice, especially if treatment is likely to be successful. Patients infected with genotype 2 or 3 hepatitis C virus have very high success rates with current therapy. On the other hand, patients with genotype 1 infection, especially those with high “viral loads” (the amount of virus circulating in the bloodstream) have much lower treatment response rates. Thus, the decision about whether or not to treat with antiviral drugs depends on many factors and must be individualized.

### Why would anyone not want to be treated?

Side effects may limit treatment options. Currently, hepatitis C is treated most often with a combination of interferon and ribavirin taken for 6 to 12 months. Interferon is a drug that must be injected under the skin. The recent introduction of pegylated interferons has reduced the number of injections from three times a week to once a week and improved treatment response rates in some groups of patients. Ribavirin is a pill that is taken twice a day. Both drugs have potentially serious side effects, including flu-like symptoms, depression, anemia, low white blood cell counts, and birth defects. Some patients decide never to start treatment because of concern about side effects, and others stop treatment prematurely because of the side effects.

Some other conditions may make side effects worse or decrease the potential benefits of treatment. Patients with advanced cirrhosis, for instance, or those with other significant medical conditions have little chance of receiving benefit from antiviral therapy and may actually suffer clinical deterioration. Patients who have uncontrolled psychiatric conditions may be particularly vulnerable to some of the side effects of interferon. Treatment with ribavirin should never be given to either member of a couple in which the woman is pregnant or may become pregnant during therapy.

### Antiviral treatment in VA

All approved drugs and formulations of drugs used for hepatitis C treatment are available on the VA national formulary. VA has an excellent track record of making new drugs available quickly. In fiscal year 2002, over 6,600 veterans received antiviral therapy. This represented an 18 percent increase over the previous year.

### Which veterans should be treated with antiviral therapy?

- Those who want to be treated
- And whose medical and psychiatric conditions are stable
- Who have at least moderate liver disease based on a liver biopsy
- Or who have cirrhosis of the liver which is not far advanced
- Or who have HCV genotypes (strains) 2 and 3 even with minimal liver disease

### Common side effects from interferon and ribavirin therapy:

- Flu-like symptoms
  - fever, chills, aches and pains
- Fatigue
- Anemia
- Nausea, vomiting, loss of appetite
- Diarrhea
- Low platelets and white blood cells
- Hair loss
- Injection site reactions
- Depression, irritability
- Insomnia
- Impaired concentration
- Thyroid alterations
- Worsening diabetes

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However, reflecting the high costs of new therapy, the costs of antiviral drugs in these patients increased 63 percent over the same time period. The Hepatitis C Case Registry will provide additional information in the future about drug treatment and its outcomes in VA patients.

Limited information about treatment response rates from individual VA medical centers has recently been published. In some of these reports, the rate of sustained virologic response has frequently been lower than described in clinical trials where patients were often highly selected. This may be due to a number of factors, including a high prevalence among VA patients of conditions and factors associated with poor treatment response rates. It will be important to collect additional information about treatment outcomes specifically in VA populations. A large research study of treatment candidacy and response in multiple VA medical centers has been completed and results are expected later this year.

### **Co-infection with hepatitis C and HIV**

*Nearly 20,000 veterans currently receiving care in VA are infected with HIV, the virus that causes AIDS. Over 30 percent of these veterans are also infected with hepatitis C. As treatments for HIV have improved, the threat from long-term complications of hepatitis C in these co-infected veterans has increased. Hepatitis C-related liver disease progresses more rapidly in those who are infected with both viruses. There is evidence that serious liver disease, including cirrhosis and liver cancer, are increasing rapidly among these patients. However, there is very little known about the response of co-infected patients to antiviral therapy for hepatitis C. The VA's National Hepatitis C Program is currently examining the results among HIV-infected veterans who have been treated for hepatitis C. The area of co-infection is a major research priority in the fields of HIV and hepatitis C.*

# Improving Access for Patients with Substance Abuse and Mental Health Disorders

Guadalupe Garcia-Tsao, MD  
VA Connecticut Hepatitis C Resource Center



## Key points

- Psychiatric and substance use disorders are common among veterans with hepatitis C.
- In the past these conditions frequently led to the exclusion of patients from consideration of antiviral therapy.
- Approaches to these patients are changing; a recent NIH consensus conference concluded that decisions about treating these patients should be made on a case-by-case basis.
- The HCRC program is developing ways to improve the process of referral for hepatitis C care.

## The link between hepatitis C, mental health, and substance use

Because injection drug use is one of the major modes of transmission for hepatitis C, it is not surprising that substance use disorders are prevalent among infected patients. However, the relationship is more complicated than it might initially seem. Several studies have also shown that alcohol-dependence and mental health disorders, such as depression and post-traumatic stress disorder (PTSD) are also more common in those infected with hepatitis C. In fact, a recent study showed that about 86.4% of veterans in VA care who have hepatitis C had at least one past or present psychiatric, drug-, or alcohol-use disorder. Depression and other mood disorders are also frequent side effects of treatment with interferon. The presence of even low levels of depressive symptoms may lead to more serious problems during treatment with hepatitis C. For all these reasons, the consideration of substance use and mental health disorders has always been a priority in treatment decisions about hepatitis C.

## Past exclusion from consideration for treatment

Unfortunately, in the past the response to these concerns was too frequently the categorical exclusion of patients with mental health or substance use disorders from consideration of antiviral therapy for hepatitis C. The rationale for such decisions rested on a number of assumptions that were not always based on accurate information.

For instance, some clinicians assume that patients with substance use disorders will be less likely to adhere to treatment regimens and will either neglect to take their medicine as instructed or will drop out of treatment altogether. In fact, there are few studies to back up this impression, but lessons learned from HIV suggest that such assumptions are not always true. Although some studies have shown a negative impact of substance use on treatment adherence, others have shown little or no effect.

In other cases, health professionals have assumed that treatment outcomes would be worse. However, in a recently completed preliminary study at VA Connecticut, we found that although patients with mental illness or substance abuse diagnoses were less likely to be offered antiviral therapy, their overall response rates were not significantly different from those who had neither mental illness nor substance abuse diagnoses.

**Preliminary study of treatment and outcomes at VA Connecticut  
October 1999 – March 2002**

	No history of mental illness or substance abuse	History of mental illness and/or substance abuse	Statistical difference
Number of patients	353	294	
Candidates for antiviral therapy	214 (60%)	138 (47%)	Different
Treated	95 (27%)	60 (20%)	Different
Completed treatment	51 (54%)	40 (67%)	Not different
Sustained virologic response	15 (29%)	9 (23%)	Not different

**Changes in approach**

Because the exclusion of patients with mental health and substance use disorders disenfranchises large numbers of hepatitis C patients and because of the scant data to support such an exclusion, approaches to these patients are changing. The recent NIH consensus conference on hepatitis C treatment concluded that patients with active injection drug use or alcohol abuse should not be categorically excluded from treatment with antiviral drugs for hepatitis C, but that such decisions should be made on a case-by-case basis.

However, many questions remain about how to effectively provide hepatitis C therapy to patients with substance use disorders or mental illness. One of the areas of focus for the VA Connecticut Hepatitis C Resource Center and for the Resource Center Program in general is to identify best practice models for improving the identification, education, evaluation and treatment of patients with substance use disorders.

**Changing approaches to substance abuse**

**NIH Consensus Statement '97**

“Treatment of patients who are actively using illicit drugs should be delayed until these habits are discontinued for at least 6 months”

“Treatments of patients who are drinking significant amounts of alcohol should be delayed until these habits are discontinued for at least 6 months”

**NIH Consensus Statement '02**

“Treatment of active injection drug use (should) be considered on a case-by-case basis...(and should not) be used to exclude such patients from antiviral therapy.”

“History of alcohol abuse is not a contraindication to therapy; however, alcohol abstinence is strongly recommended.”

**Outreach to clinics that provide substance abuse treatment**

Many patients with substance use disorders receive most of their VA care in clinics that provide substance abuse treatment. It is in these setting that the first steps of identifying, counseling, and referring patients with hepatitis C must occur. We have found in our own facility that patients with substance abuse or mental health disorders, even when tested and found to be positive for hepatitis C, are rarely referred to liver clinics. In fact, many patients are not even aware of their diagnosis.

The VA electronic medical record system offers unique opportunities for improving the counseling and referral process. At VA Connecticut, we have developed systems that include electronic templates for pre- and post-test counseling. These formatted electronic progress notes prompt the clinician to provide the essential elements of information required for effective counseling and then document the counseling process in the medical record.

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For patients who test positive, an expedited electronic consult process allows the clinician to refer the patient to a special liver clinic for patients with mental health or substance use disorders. This facilitated referral process minimizes wait times and other delays that may be important barriers for these patients.

These enhancements to the electronic medical record are being introduced to clinicians in substance abuse clinics in a series of training sessions. Once the system is fully tested in VA Connecticut, the templates and other electronic tools will be made available to other medical centers in the VA system where they can be tailored to meet local needs.

### **Next steps in the care process**

Once patients with substance abuse or mental illness are referred for evaluation in the VA Connecticut Hepatitis C Resource Center they will be seen promptly in a special clinic setting designed to improve treatment outcomes and to gather additional information about which of these patients can be safely and successfully treated for hepatitis C. Elements of the clinical approach include detailed individual counseling about treatment and its side effects, a series of pretreatment clinic visits to provide additional information and help the patient prepare for treatment initiation, an onsite mental health professional in the liver clinic, and periodic, systematic assessment for treatment side effects so that they can be dealt with before they become severe. In addition, a number of standardized assessments are used to characterize the severity of various symptoms and conditions. We will use the results of these assessments to better understand whether there are specific aspects of mental health or substance use disorders that are important predictors of treatment outcomes.

# Building a Model of Integrated Care for Complex Patients

**Mark Willenbring, MD**  
Minneapolis Hepatitis C Resource Center



## Key points

- Successful care of patients with hepatitis C often involves health professionals from many disciplines.
- Multidisciplinary care is enhanced when members of the health care team are working together from a common set of principles and in a coordinated fashion.
- Mental health professionals have a special and important role in hepatitis C care.
- The HCRC program is helping other centers implement integrated care models by holding interactive continuing education sessions with by providing useful tools for implementing change.

The Minneapolis Hepatitis C Resource Center is involved in developing, testing, and disseminating an integrated team care approach to hepatitis C. Successful care of patients with hepatitis C requires attention to many aspects of their mental and physical health, and often involves health professionals from many disciplines. This complicated system of care can be simplified if various members of the health care team are working together from a common set of principles and in a coordinated fashion.

## Goals of the integrated care model

Based on experience with treating many patients, the Minneapolis HCRC believes that an integrated care model will have many benefits for other VA medical centers. In addition to making the health care process simpler and more efficient, the goals of implementing this model include:

- Increased engagement in care: fewer veterans will feel frustrated and or intimidated by the complexity of hepatitis treatment and will participate more actively in treatment decisions
- Better adherence to treatment recommendations
- Fewer complications of treatment: veterans will have fewer side effects, and those who develop side effects will have them managed more effectively
- Better outcomes: more veterans will achieve eradication of infection

## The elements of integrated care

Integrated care involves the work of a multidisciplinary team, working together according to established care plans in a way that improves communication among various members of the team and between the medical team and the patient.

Multidisciplinary teams for hepatitis C care frequently involve physician specialists in liver disease, nurse practitioners or physician assistants, clinical pharmacists, mental health and addiction specialists, and social workers or patient educators. In the Minneapolis model, members of the multidisciplinary team are available to patients within the liver clinic as often as possible so that extra appointments and referrals are minimized. This also facilitates communication among care providers.

Standardized care plans and treatment algorithms help each member of the team work efficiently and with less chance that crucial elements of care will be overlooked. These care plans involve a comprehensive assessment of various needs. For instance, a standardized tool for assessing depression symptoms is administered before

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antiviral therapy is started and at each treatment visit. (Depression can be a side effect of treatment.) Every member of the team knows how this instrument is used and what should be done with the results. That way, the recognition of and reaction to increased depression symptoms is not left to the judgment of any individual care provider.

### **The special role of mental health professionals**

Hepatitis C and its treatment have the potential for significant impact on mental health. Hepatitis C may itself cause fatigue, and concern about long-term health effects can lead to anxiety and depression. In addition, interferon frequently causes psychiatric side effects such as irritability, confusion, and depression. Although rare, suicide has sometimes resulted from the side effects of interferon. Several Hepatitis C Resource Center initiatives involve attention to the mental health needs of patients with hepatitis C. In the integrated care model employed at Minneapolis, there is a particularly close relationship between liver specialists and mental health professionals. A pilot program is underway to assess the impact of a psychiatric clinical nurse specialist working in the liver clinic to serve as a liaison to other mental health professionals and services.

### **Helping other centers implement the integrated care model**

The Minneapolis HCRC is helping other centers implement integrated care models by holding preceptorships and by developing tools and products to help others who may be trying to develop more effective team care.

Unlike traditional provider education programs, the goal of the preceptorship is to go beyond increasing practitioner knowledge to enhancing competence, developing the ability to apply knowledge, and, eventually, to changing medical practice. Participation is open to health care providers of any discipline from any VA medical center. The process begins with a site-specific assessment of current care and identification of areas for improvement. Participants then attend a 2-day workshop at the Minneapolis VA where they receive instruction in current treatment, observe the workings of an effective multidisciplinary team, participate in skill building activities, and develop action plans for implementation at their own facilities. After the participants return to their facilities, there are scheduled follow-up communications by email and conference calls to assess implementation of the action plan, provide coaching, and share success stories with other facilities.

### **Other products**

In order to support facilities that are trying to develop better integrated services for patients with hepatitis C, the Minneapolis HCRC is developing a number of products that will be distributed.

The course content from the preceptorship has been incorporated in a manual that includes reprints of important articles, written summaries of the presentation, and a CD ROM with audio-visual copies of the actual presentations by preceptorship speakers. These tools can be used by the attendees when they return to their medical centers for further training of other team members and as a permanent set of reference materials.

A manual for management of psychiatric and substance use disorders in hepatitis C is also being developed. This manual will serve as the foundation upon which to improve the collaboration of mental health and liver specialists. It includes specific recommendations for developing an integrated team care approach, as well as guidelines related to screening and management of mental health and substance abuse problems.

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### **Primary care providers' role in hepatitis C care**

*Primary care providers are the primary point of contact with the medical care system for most patients. These medical professionals – doctors, nurses, and physician assistants – are responsible for a large number of preventive and chronic disease management activities. In hepatitis C, primary care providers perform the initial risk factor screening and order diagnostic tests. They inform patients of test results, provide counseling about hepatitis C, and begin the process of evaluation that leads to a decision about the appropriate treatment. If primary care providers do their job well, they enable liver specialists to concentrate on the work that truly requires their expertise. The Hepatitis C Resource Center program has developed a pocket guide and training materials for primary care providers that were distributed in March 2003. The pocket guide is being distributed during training sessions led by liver specialists in each VA medical center.*



