

DDW 2006: Conference Highlights – Part 3



Alan Franciscus, Editor-in-Chief

This is the final report from the Digestive Disease Week Conference held in May 2006. In this article I will focus on miscellaneous studies including increasing physician knowledge about hepatitis C, HCV treatment and depression, disease progression of hepatitis C in Asian Americans, and the continued high death rates from alcoholic liver disease.

PCP EDUCATIONAL INTERVENTION

In my coverage of last year's DDW Conference (*HCV Advocate*, June 2005) I reported on a study of physician knowledge of HCV among 251 internal medicine residents in the United States by J.K. Lim and colleagues. In the study it was reported that there was a general lack of knowledge about many areas of HCV among the internal medicine residents. For example, a low percentage of the internal medicine residents:

- Performed an HCV PCR (viral load) test (36.7%)
- Performed a genotype test (36.7%)
- Vaccinated against HAV (61.4%)
- Vaccinated against HBV (36.7%)
- Tested individuals who had a history of blood transfusions (59.8%)

- Tested individuals who had snorted cocaine (26.7%)
- Tested individuals who had been incarcerated (21.5%)

Even more of a concern was that 20.3% of the residents responded that they would have vaccinated their HCV patients with an HCV vaccine. Clearly, more education is needed to increase the level of knowledge about hepatitis C in these medical providers.

It is also known that the vast majority of people infected with hepatitis C are yet to be diagnosed and that in order to increase the diagnosis and management of HCV, primary care providers will need to be supported with education about risk factors, diagnostic tests and disease management.

A poster by A. Daniel and colleagues (abstract T1048), titled "The Positive Impact of a Multi-Faceted Educational Intervention on Physician Knowledge and the Actual Practice of Primary Care Physicians Regarding Hepatitis C" presented at this year's DDW, may provide a roadmap to increasing the knowledge of HCV among primary care physicians. The authors noted that previous studies have found that only 1% of the new PCP visits had documentation of their patients be-



IN THIS ISSUE

Healthwise:

Dietary Supplements.....3

Statins: A New Therapy for Hepatitis C?

.....5

**Excerpt: MANAGEMENT OF
HEPATITIS C BY THE PRIMARY CARE
PROVIDER:
MONITORING GUIDELINES**.....9

ing asked about HCV risk factors, and only 16% of HCV testing was based on HCV risk factors.

A pre-intervention validated survey was administered to all the physicians (30) and chart reviews (2000 random charts) were performed to assess baseline practice. The duration of the intervention was 8 weeks using educational material, chart prompts, weekly emails, 2 noon conferences, 1 morning report, 2 journal articles, and incentives. No intervention was performed in the control group. At the end of the intervention period the physicians were re-surveyed using the same validated survey. In all 91% of the physicians completed the survey of whom 56% were female and 22% were from a teaching faculty.

The pre-intervention survey found that the physicians in the study reported low levels of confidence in care for HCV patients. It

continued on page 2

DDW**continued from page 1**

was also found that a significant proportion of physicians demonstrated a lack of knowledge of HCV risk factors, testing, and effectiveness of therapy – 62% of the physicians had not made a new diagnosis of HCV in the past year, only 56% reported testing for HCV in patients with high-risk behavior, and 42% significantly underestimated the current efficacy of HCV medications. In the area of physician practice only 0.4% of patients were asked about common HCV risk factors, 0.1% were identified as having a risk factor and less than 0.1% were tested.

After the 8 week intervention, the same survey was conducted and the authors reported a positive dramatic improvement in physician knowledge in regards to risk factor identification, physician comfort in care of HCV, and knowledge of treatment effectiveness ($p < 0.001$). In their practice, there was a 5 fold increase in new hepatitis C diagnoses during the study period (8 weeks) and 80% of the physicians were now screening for HCV compared to only 0.1% pre-intervention.

The authors concluded that their “multifaceted intervention showed impact in virtually all areas of physician knowledge and lead to significant improvement in practice.” This included increases in screening, testing and diagnosis of new HCV cases.

HCV TREATMENT AND DEPRESSION

It is well-known that interferon can induce depression and other psychiatric disorders. For this reason, some patients have been excluded from treatment because of the fear of exacerbating underly-

ing psychiatric disorders. A study presented at DDW titled “Antiviral Outcomes of Patients with Chronic Hepatitis C and Depression Treated with Pegylated Interferon Alfa-Based Therapy: A Multicenter Experience,” by A. Knott and colleagues (abstract T1812), gives significant insight into the effect of depression and HCV treatment outcome. This was a retrospective analysis of 91 HCV patients with depressive disorders at 4 urban VA Medical Centers. The study population was predominantly male (95.6%), Caucasian (86.8%), genotype 1 (63.7%), and approximately one half had fibrosis stage 3 or 4.

The charts of the 91 patients were analyzed for alcohol and other substance use. Alcohol misuse was diagnosed in 22% of the patients and 16% of the patients were diagnosed with substance abuse disorders. Twenty-six percent reported using recreational drugs in the previous year.

The grade of depression was evaluated using the Beck Depression Inventory (BDI):

- Score < 15 = mild depression
- Score 15-30 = moderate depression
- Score > 30 = severe depression

About 75% of the patients had a current diagnosis of depression, 47% had anxiety disorders and 16% had other psychiatric diagnoses. A total of 71.4% of the patients were on antidepressant medication prior to starting HCV treatment and 9.9% of patients started antidepressant medication during treatment.

Twenty four patients discontinued treatment early – psychiatric (1%), substance use (3%), unable to tolerate medications (12%), adverse events (2%), medical reasons (1%), and 4% had multiple reasons for discontinuation.

The authors reported that a BDI score of ≥ 20 (prior to treatment), and having used drugs in the 12 months period prior to treatment start date were associated with early discontinuance of HCV therapy. Interestingly, it was also found that a liver biopsy stage of ≥ 2 reduced the likelihood of early discontinuation which may give an indication that the severity of HCV disease was a motivation to stay on treatment. Treatment response information was available for 72 patients. Sustained virological response (SVR) was achieved in 27 patients (37%) and 17 were non-responders at 24 weeks.

The authors concluded that “patients with stable depressive disorders and baseline BDI score less than 20 may be effectively treated with interferon based therapy.” The authors also stated that few patients terminated interferon therapy due to psychiatric or substance use disorder related non-compliance.

ASIAN AMERICANS

It is estimated that approximately 180 million people worldwide have been infected with hepatitis C. In some parts of the world the highest risk factor for contracting hepatitis C is from unsafe medical procedures. For instance, the country with the highest prevalence of HCV is Egypt where it is estimated that between 10-13% of the population has been infected with hepatitis C and that 7.8%, or 5.3 million, of the Egyptian population has chronic hepatitis C. The high prevalence of HCV in Egypt is due to the inadequate sterilization of re-used glass syringes to treat a parasitic disease called schistosomiasis. (*Hepatitis C in Egypt*, MWC August, 2006).

Due to unsafe medical practices around the world, people who have

continued on page 7

HealthWise:

Dietary Supplements



Lucinda K. Porter, RN

Let us start with a “what if” game. If you are not feeling well, then you are especially ready for this game. If you are feeling well, try to remember a time when you felt lousy. What if someone tells you that you will feel better if you try one of the following: a vitamin or supplement, a prescription medication, a diet, an exercise program or going to bed earlier. Which would you choose?

If you are like me, you picked the vitamin or supplement. My natural inclination is to take the path that I perceive to be easiest and most pain-free. I do not like to take medication, particularly if the side-effect risk is high. Diet and exercise are uncomfortable. My life is full and I would much rather take a vitamin than get a decent night’s rest.

However, health is not a game. I told you how I would play the game but this is not how I live my life. Most of the time, I take the uncomfortable path – the one I resist. Diet, exercise and sleep are at the top of my list. Recreation, stress reduction and spiritual practice are also at the top of my list.

I do not expect to find health in bottles. I treat dietary supplements with the same respect as I do medications. I consult with my doctor. I do my homework. I understand the potential risks and benefits. I use them when I need them. I am grateful that supplements are available.

Patients frequently ask me what I take. The reply is complicated, depending on a number of factors. In this month’s column, I will discuss some of the guidelines I use when choosing a vitamin or mineral. Please note that these are **my** guidelines and not necessarily those of *The HCV Advocate*. My goal is not to give advice but to stimulate thinking about your health, while providing tools to enable you to make solid decisions. I am not an expert in this area. Always consult with your medical provider and other experts before taking any drug or supplement.

Start with the experts: Discuss dietary supplements with your medical provider. If your provider

does not know much about supplements, ask for a referral to an expert. Even if your provider knows little on the subject, if he or she is willing or open-minded, the two of you can learn together. No one should ever belittle or dismiss you because of this interest.

Tell your provider about everything you are taking: Some supplements interact with medications and other supplements. For instance, patients taking Coumadin (warfarin) or other blood thinners should avoid vitamin K unless advised otherwise. The Internet provides tools that will check for interactions between everything you are taking. The *Resource* section at the end of this column lists sites with this information.

Find good information: I subscribe to a number of publications. The *Nutrition Action Health Letter* is my favorite. If you can afford it, this organization is worthy of financial support. You can access portions of the newsletter on line or at your public library.

I support services and organizations that promote research and better industrial practices. For instance, ConsumerLab.com provides independent lab testing for dietary supplements. Manufacturers voluntarily submit products. Products that meet or exceed certain standards, are allowed to carry the of ConsumerLab seal of approval. I check the ConsumerLab list before purchasing a dietary supplement.

Know what to buy: Buy products that submit to voluntary self-regulation. Supplements that strive to meet standards show that the manufacturers put extra effort into their products. There are a variety of insignias, designations and “seals of approval.” Some are The United States Pharmacopoeia (USP), NF, NSF, and ConsumerLab.com (CL). Standards have also been set by Germany’s Commission E, the British Herbal Compendium, the World Health Organization, the American Herbal Pharmacopoeia, the American Herbal Products Association and others. Products that followed GMP – “good manufacturing practices” – suggests

continued on page 4

SUPPLEMENTS

continued from page 3

more effort went into manufacturing. (In Canada, the GMP means “good manufacturing process.”)

Supplement with food: Our bodies utilize vitamins and minerals from food sources. Good nutrition is the foundation for vitamins and minerals. Do not use supplements as a substitute for good nutrition.

More is not better: In fact, high doses of some vitamins may be harmful. In particular, avoid high doses of vitamin A. Aim for no more than 4000 International Units (IU)ⁱ daily of retinol (a form of vitamin A) or 15,000 IU of beta-carotene (a form of vitamin A). To be safe, keep vitamin E to 100 IU.ⁱⁱ The daily value of zinc for women is 8 mg, and for men it is 11 mg – never exceed 23 mg of zinc.ⁱⁱⁱ Avoid high doses of vitamin B-3 (niacin) and take no more than 100 mg of vitamin B-6.^{iv} Keep phosphorous and magnesium to less than 350 mg.^v

Less may not be enough: Choose a multivitamin that contains at least the minimum Daily Value (DV). Look for a multi that has at least 50 mcg of selenium and at least 10 mcg of vitamin K (50 mcg for men and women under 50).^{vi}

Multivitamin-Mineral Supplement: Unless your medical provider advises you otherwise, look for a multivitamin with no or low iron. “Senior” or “over 50” versions of most major brands are usually low or without iron. Choose a multi that has at least 100% of the Daily Value (DV) for vitamins B-1 (thiamin), B-2 (riboflavin), B-3 (niacin), B-6, B-9 (folic acid), B-12, C, D, E.

The very best multis have at least 10 mcg of vitamin K, 35 mcg of chromium, and no less than 11 mg or more than 23 mg of zinc.^{vii}

Iron: Liver patients should not take additional iron without consulting their medical providers. Iron dosages depend on many factors, including gender, age, diet, and health history.

Calcium and Magnesium: The recommended dosage of calcium depends on individual factors, such as age, gender and health history. Optimal doses of magnesium start at 100 mg; do not exceed 350 mg.^{viii} Calcium and magnesium are bulky, so it is best to supplement these separately from a multivitamin.

Resources

Center for Science in the Public Interest – www.cspinet.org This nonprofit lobby group is a leader in the nutrition and food safety arenas. They publish the *Nutrition Action Health Letter*.

The Cochrane Collaboration – www.cochrane.org Independent and reliable review of medical evidence.

ConsumerLab.com – www.consumerlab.com Independent, reliable testing of supplements voluntarily submitted for analysis. Some free information, but there is a membership fee to use all of this website’s resources.

Drugs.com – www.drugs.com One of the many fine features of this website is the drug interaction tool. Use this to check for potential interactions between drugs and supplements.

Mayo Clinic – www.mayoclinic.com

Memorial Sloan-Kettering Cancer Center – www.mskcc.org/mskcc/html/11570.cfm

National Institutes of Health Office of Dietary Supplements – www.ods.od.nih.gov/Health_Information/Health_Information.aspx

Supplement Quality – www.supplementquality.com Information about supplement safety and how to read labels.

Notes

^{i-viii} “The Multivitamin Maze,” *Nutrition Action Health Letter* March 2006

© September 2006, Lucinda Porter, RN and the Hepatitis C Support Project / HCV Advocate www.hcvadvocate.org – All Rights Reserved.

Reprint is granted and encouraged with credit to both the author and the Hepatitis C Support Project.

Resources:

The following resources can be found on the HCV Advocate site

Factsheets

- *HCV & CAM: Dietary Supplements to Avoid*
- *Dietary Substances and the Food and Drug Administration (FDA)*
- *Herbal Dietary Supplements Glossary*
- *Herbs and Dietary Supplements: Making Safer and Wiser Choices*
- *Herbs and Hepatitis C*
- *Internet Resources for Dietary Supplements*

Guides

- *A Guide to Healthy Living with HCV*



Statins: A New Therapy for Hepatitis C?



Liz Highleyman

The publication this summer of a study showing that statin drugs inhibited hepatitis C virus (HCV) replication in laboratory studies generated considerable excitement among HCV positive individuals and their providers. What are statins, and do they represent a new hope for people with HCV?

WHAT ARE STATINS?

Statins, also known as 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase inhibitors, are approved for the treatment of elevated cholesterol. Low-density lipoprotein (LDL) cholesterol contributes to atherosclerosis (hardening of the arteries), and elevated LDL is associated with an increased risk of cardiovascular disease. A different type of cholesterol, high-density lipoprotein (HDL), exerts a protective effect by transporting fats out of the body.

Statins work by inhibiting an enzyme needed for the production of cholesterol in the liver. In addition to decreasing LDL cholesterol, the drugs also modestly reduce triglyceride levels and raise HDL cholesterol.

The currently marketed statin drugs are:

- atorvastatin (Lipitor)
- fluvastatin (Lescol)
- lovastatin (Mevacor)
- pravastatin (Pravachol)
- simvastatin (Zocor)

With increasing rates of obesity and associated metabolic conditions – both in HCV positive individuals and in the population as a whole – the statins have become one of the most widely prescribed classes of drugs

STATINS AND HCV

In the July 2006 issue of *Hepatology*, M. Ikeda and colleagues reported on a study showing that certain statins were active against HCV in laboratory cell cultures. Because it is difficult to maintain HCV *in vitro*, the authors developed an HCV RNA replication system, or “replicon,” to evaluate the anti-HCV activity of these drugs.

The researchers found that fluvastatin demonstrated the strongest activity against HCV. Atorvastatin and simvastatin showed intermediate anti-HCV inhibitory activity, while lovastatin demonstrated only weak activity against the virus. One statin, pravastatin, demonstrated no anti-HCV activity in the laboratory.

The authors also found that when statins were administered with interferon alpha, all except pravastatin exerted an even stronger inhibitory effect on HCV. In the case of fluvastatin, the effect appeared to be synergistic, meaning that the combined effect was greater than the sum of the two drugs considered separately.

The researchers concluded that statins “could be potentially useful

as new anti-HCV reagents in combination with interferon.” They noted that fluvastatin plus interferon appeared more effective against HCV than the current standard regimen of pegylated interferon plus ribavirin.

HOW DO STATINS INHIBIT HCV?

The reasons for the inhibitory effect of statins on HCV are not well understood. Because all statins work as HMG-CoA reductase inhibitors, the fact that some had minimal or no activity against HCV suggests the antiviral effect occurs by some other mechanism.

In addition, statins did not kill host liver cells, indicating that the anti-HCV activity was not due to cytotoxicity. The researchers suggested that “statins possess the ability to inhibit the replication of HCV RNA via a specific antiviral mechanism.”

Because the antiviral activity of statins was reversed by adding them to the cell cultures mevalonate or geranylgeraniol (two compounds that play a role in the HMG-CoA reductase biosynthesis pathway), the authors suggested that inhibition of these proteins might somehow interfere with HCV replication.

STATIN SAFETY

Though statins are widely prescribed, they are not free of side effects and risks. One of these is

continued on page 6

STATINS

continued from page 5

the potential for liver toxicity (hepatotoxicity). Though statins have not been extensively studied in people with hepatitis C, it is often the case that drugs that have the potential to cause hepatotoxicity are more likely to do so in patients with pre-existing liver disease.

One recent study, however, found that statins did not appear to increase the risk for hepatotoxicity in patients with hepatitis C. S. Khorashadi and colleagues assessed the incidence of liver toxicity in 166 HCV positive patients treated with statins, 332 HCV positive people not receiving statins, and 332 HCV negative individuals taking the drugs. They found that among HCV positive individuals, use of statins was associated with a higher rate of mild-to-moderate liver biochemistry elevations compared with those not on statins (23% vs 13%, respectively), but a lower incidence of severe liver enzyme elevations (1% vs 7%).

Among patients started on statins, the rates of mild-to-moderate elevations were similar in subjects with and without HCV (23% vs 16%, respectively). HCV positive and negative patients also had similar rates of severe elevations and statin discontinuation due to hepatotoxicity. The authors concluded that “[s]tatin therapy was not associated with a higher risk of severe hepatotoxicity in patients with chronic hepatitis C and appeared safe.”

For HIV/HCV coinfecting individuals, an additional concern is the potential for interactions between statins and antiretroviral drugs, particularly protease inhibitors, which could alter drug levels in the body.

LOOKING TO THE FUTURE

HCV positive people have already begun asking whether statins might play a role in hepatitis C treatment. Research on this class of drugs as antiviral therapy is still in the preclinical stage, and it will be some time before human clinical trials show whether statins are effective for this indication. In the United States, however, clinicians may prescribe medications “off-label” for indications other than that for which the drugs were approved.

The latest data suggests that statins may one day become a component of combination therapy for chronic hepatitis C, and that the drugs appear to have an acceptably low level of hepatotoxicity in people with HCV. While we await the results of further research, HCV positive individuals who are already taking statins to reduce their cholesterol may be deriving an additional, unexpected benefit.

References

Ikeda, M. et al. Different anti-HCV profiles of statins and their potential for combination therapy with interferon. *Hepatology* 44(1): 117-125. July 2006.

Khorashadi, S. et al. Incidence of statin hepatotoxicity in patients with hepatitis C. *Clinical Gastroenterology & Hepatology* 4(7): 902-907. July 2006.



Executive Director Editor-in-Chief, HCSP Publications

Alan Franciscus
alanfranciscus@hcvadvocate.org

Managing Editor, Webmaster

C.D. Mazoff, PhD
cdmazoff@hcvadvocate.org

Contributing Authors

Liz Highleyman
Lucinda K. Porter, RN

Design

Paula Fener
Blue Kangaroo Design
blueroodesign@aol.com

Contact information:

Hepatitis C Support Project
PO Box 427037
San Francisco, CA 94142-7037

The HCV Advocate offers information about various forms of intervention in order to serve our community. By providing information about any form of medication, treatment, therapy or diet we are neither promoting nor recommending use, but simply offering information in the belief that the best decision is an educated one.

Reprint permission is granted and encouraged with credit to the Hepatitis C Support Project.

© 2006
Hepatitis C Support Project



DDW

continued from page 2

emigrated from countries outside of the United States tend to have a higher prevalence of HCV than the general U.S. population, including Asian immigrants. The hepatitis C epidemic started earlier in Asia than in the United States so immigrants from Asia generally tend to have had HCV infection for a longer period of time compared to the general U.S. HCV population. Thus, studying the immigrant Asian HCV population will give us a glimpse into the future disease burden of HCV in this country.

J.T. Chen and colleagues from the Liver Center, Huntington Medical Research Institutes presented a poster titled “Emerging Importance of Chronic Hepatitis C in Asian Americans” (Abstract S1039). A retrospective study was conducted on HCV patients of Asian descent at The Liver Center, Huntington Research Institutes. Various medical records were reviewed including radiographic and pathology records. The inclusion criteria consisted of patients of Asian descent (as defined by the U.S. Census Bureau) and a diagnosis of hepatitis C.

Two hundred and fifty-four patient charts were reviewed. The mean follow-up period was 62.4 ± 54.2 SD months – 53.1% were male, and the mean age at presentation was 57.3 ± 13.5 SD years. Of the 208 patients tested for genotype – 63.9% were infected with genotype

1, 18.3% with genotype 2, 2.9% with genotype 3, 0.5% with genotype 4, 11.5% with genotype 6 and 2.9% with genotype 7.

The breakdown by ethnicity was : Chinese (60.6%); Vietnamese (10.2%); Korean (10.2%); Japanese (9.5%); Filipino (2.4%); Indonesian (1.2%); Indian (.08%); other ethnicity (Burmese, Mongolian, Pakistani, Thai) (1.5%) and mixed ethnicity (3.5%). The route of transmission for all groups was unsafe medical injections (51%), blood transfusions (41%), intravenous drug abuse (4%); occupational needlesticks (2%), tattoo (1%) and unknown route (1%).

A total of 129 patients received interferon based therapy (interferon monotherapy, interferon plus ribavirin, pegylated interferon monotherapy, and pegylated interferon plus ribavirin). Seventeen patients are still undergoing treatment. The overall sustained virological response rate was 52.8%; with genotype 1, 32.2% (19 of 59 patients); genotype 2, 76.5% (13 of 17 patients); genotype 3, 100% (4 of 4 patients); genotype 4, 100% (1 of 1 patient); genotype 6, 69.2% (9 of 13 patients) and genotype 7, 100% (1 of 1 patient).

The chart reviews found that of the 254 patients, 51 people died during the follow-up period. Of the 51 deaths that occurred during the follow-up period, 82.4% were due to HCC or liver cancer, 7.8% from cirrhosis and 9.8% died of complications not related to liver disease.

The authors concluded that in their center “51% of Asian Ameri-

cans with chronic hepatitis C reported a history of unsanitized medical injections as the only risk factor for mode of transmission” and that “HCC developed frequently in our chronic hepatitis C patients of Asian descent.”

ALCOHOL-RELATED DEATHS

It is a widely held belief that alcoholic liver disease is on the decrease in this country. However, a poster presented at DDW may give a better picture of deaths related to alcoholic liver disease, the impact of HCV, and the impact of having alcoholic liver disease and hepatitis C. “Persistently High Mortality Rate of Alcoholic Liver Disease Despite the Hepatitis C Epidemic,” by W. Kim and colleagues (abstract M1921), analyzed all death certificates between 1980 and 1997. The review identified causes of death by alcoholic liver disease and hepatitis C. The cause of death from alcoholic liver disease in people with hepatitis was also examined. In total for the period between 1980 and 1997 there were 186,081 deaths caused by alcoholic liver disease. As well, 1,721 of the decedents with alcoholic liver disease and 195 with alcoholic hepatitis also had an HCV diagnosis (see table 1). Alcoholic liver disease showed a slight decrease over time (p = 0.01). Of note, in the late 1990s, there was a rapid rise in HCV-related deaths.

The authors concluded that “[w]hile mortality from HCV increased rapidly, alcoholic liver disease continues to be a great cause of death from liver disease.” The authors also noted that “despite the changes in U.S. alcohol consumption, the incidence of alcoholic hepatitis has remained nearly unchanged during the 1980s and 1990s,” and that “alcohol remains the most important cause of death from liver disease in the U.S.”

TABLE 1.

	Alcoholic Liver Disease	Alcoholic Hepatitis	Hepatitis C
Number	186,081	19,127	18,951
Age at death	54.7 ± 12.6	56.9 ± 15.8	50.1 ± 12.8
Male	73.0 %	68.5%	60.5%
Liver Cancer	1.4 %	0.4%	10.7%



NORTH CAROLINA ORGAN DONOR REGISTRY

At this time, the state of North Carolina does not maintain its own organ donor registry. North Carolina residents may signify their wishes on their driver’s license or state identification. North Carolinians are encouraged to convey their preferences to their loved ones. North Carolina residents, who wish to carry a record of their wishes, may download an organ donor card at:

www.carolinadonorservices.org
www.donatelife.net

Religion and Organ Donation

Nearly every major world religion supports organ donation or believes it to be a personal choice. Many religions view organ donation as a gift of life and compassion. To learn what your religion’s doctrine states about organ donation, visit *www.carolinadonorservices.org* Click on “Religious Views” under the “Get the Facts” heading.

Help Us Reach More People with Hepatitis C!
SUPPORT US THROUGH EITHER A PAID SUBSCRIPTION OR DONATION

YES! I’d like to subscribe

\$20 one year—12 issues

\$10 one year—12 issues
 (for those with fixed incomes)

Renewal

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

**YES! I’d like to make
 a tax deductible donation**

\$10 \$25
 \$100 other

Please make checks payable to: HCSP/The Tides Center

Please mail form to:

HCV ADVOCATE
 P.O. Box 427037
 San Francisco, CA 94142-7037



The Hepatitis C Support Project does not share its mailing list with any individual or organization. All subscribers’ names and addresses are strictly confidential

***Excerpt:* MANAGEMENT OF HEPATITIS C BY THE PRIMARY CARE PROVIDER: MONITORING GUIDELINES**



David H. Winston, M.D., F.A.C.P.
Director of Gastroenterology and Hepatology
CIGNA HealthCare of Arizona, Sun City
and Donna C. Winston, PhD, N.P.
Medical Research Consultant

(Note: Due to the low level of awareness of HCV among many primary care providers, in 2006 HCSP published the guidelines below to help educate and support the primary care provider. HCSP would also like to encourage people living with hepatitis C to read and study the Guide. In this era of managed health care it is particularly important that people affected by hepatitis C learn as much as possible about their condition so that they can receive the best possible medical care. The entire text for the Guide can be found on our Web site www.hcvadvocate.org.

– Alan Franciscus, Editor-in-Chief)

INTRODUCTION

Hepatitis C is a global health problem. According to the World Health Organization, more than 170 million people are infected worldwide by the hepatitis C virus (HCV). The Centers for Disease Control and Prevention (CDC) estimates that in the United States approximately 4 million people are infected with HCV, of whom 2.7 million have chronic HCV infection, and that 10,000-12,000 die per year from HCV. Most patients with chronic HCV have yet to be diagnosed and only as few as 30% of persons may have actually been di-

agnosed so far. Most HCV-infected people are expected to first present for medical attention in the next decade, which will result in a four-fold increase in diagnosed cases by 2015. It has been projected that between 2010-2019, there will be \$11 billion in direct medical costs and \$75 billion in indirect costs (resulting from premature disability and mortality) from HCV.

Most of the morbidity and mortality from HCV is caused by complications of decompensated cirrhosis. If identification and treatment of all persons with HCV with compensated cirrhosis occurred today, the number of cases of decompensated cirrhosis would be reduced by approximately one-third after 20 years. To achieve this goal, the Primary Care Provider (PCP) must get more involved in the diagnosis and care of HCV. And because most HCV patients are asymptomatic and unaware of their disease, it is up to the PCP in their role as gatekeeper of healthcare to identify and screen their patients who are at risk for HCV. The PCP can then initiate evaluation and referral of appropriate HCV patients to the gastroenterologist/hepatologist for treatment before the patient progresses to cirrhosis. However, three recent studies have shown

that HCV in the PCP setting is under-diagnosed and under-referred and that testing is rarely initiated because of physician-identified risk factors. It is also of the utmost importance that PCPs be knowledgeable about the side effects of treatment, so that when they see their patients who are being treated for HCV for routine and urgent care, they can help manage side effects.

Our lecturing on HCV to PCPs around the country has convinced us that there is a need for a set of HCV guidelines directed towards the PCP. The purpose of this guide is to provide such guidelines for the management of HCV by the PCP. These guidelines are not meant to replace existing extensive reviews and guidelines intended for the specialist. Instead, they are designed to help the PCP understand the pathogenesis, natural history, evaluation, and treatment of HCV in a simple, concise, and user-friendly manner, so that PCPs will be better able to take care of their HCV patients.

To view the Guide, go to www.hcvadvocate.org and click on the right-hand button "Primary Care Guide."



For Living Positively. Being Well.



www.hcvadvocate.org

HCSP

P.O. Box 427037
San Francisco, CA
94142-7037