An HCV Advocate tradition is to take a poll among our staff and come up with a list of the most important news stories of the year. The most prominent news story that started the year off (on a bad note) was the possible connection between the treatment of hepatitis C (HCV) with direct-acting antivirals (DAAs) and hepatocellular carcinoma (HCC-liver cancer) and the high cost of HCV DAA medications. The most hopeful news stories that ended the year were just the reverse. The liver cancer and generic news stories are our top news stories of the year. The remainder of the stories are not in any particular order of importance. Nonetheless, they are all newsworthy stories of 2018.
Liver Cancer

DAA cure and liver cancer – as mentioned above, last year ended with the controversial issue of whether DAAs could potentially cause hepatocellular carcinoma (HCC- liver cancer). One result of this was that in 2017, guidelines were established for people who were cured after DAA treatment: People with no or minimal fibrosis before treatment required no further liver cancer follow-up; People with severe fibrosis (stage 3) or cirrhosis (stage 4) required regular monitoring for liver cancer. These guidelines remain. Good News: This year, the evidence shows that DAAs do not produce liver cancer.

Liver Cancer is on the increase mainly due to NAFLD/NASH (fatty liver disease), hepatitis B (HBV), alcoholic liver disease, and HCV.

For more information about liver cancer see Lucinda Porter’s article in this issue of the HCV Advocate newsletter.

Generic Drugs

Generic direct– acting antiviral (DAA) drugs have been launched around the world and have been found to be just as effective and cheaper as the brand name drugs produced by the well-known manufacturers (Gilead, Abbvie, etc.). In 2018, Gilead announced that it was launching its own generic subsidiary in the United States, and will be selling generic versions of Epclusa (sofosbuvir/velpatasvir) and Harvoni (ledipasvir/sofosbuvir) in January 2019. The price for a typical course of therapy will be $24,000. The lower price of these drugs will mean that many people in the U.S. will now have access to treatment. This may also drive down the prices of the competitors’ drugs.


Hepatitis A (HAV)

Vaccine – preventable HAV continues to infect, sicken and kill many people across the United States. The large outbreaks started in 2017 and continued through 2018. HAV outbreaks don’t seem to be ending anytime soon. Kentucky has had one of the worst outbreaks of HAV this year—there have been 3,021 cases of HAV cases identified. Half of the cases required hospitalization and 19 people have died as of December 01, 2018. Kentucky has also had one of the highest rates of acute HCV in recent years.

Read more about the HAV outbreak: http://outbreaknewstoday.com/kentucky-hepatitis-outbreak-tops-3000-cases-36871/

HEP is tracking the national outbreak of HAV.

Read more: https://www.hepmag.com/iframe/hepatitis-a-outbreak-map

WHO HCV Elimination Guidelines

Nine countries have committed to eliminate HCV. Unfortunately, the United States is not listed in the report as on track towards HCV elimination. Some states have committed to eliminating HCV, but there have only been a handful. The reason is obvious—lack of commitment from our local, state and national government to identify and treat everyone with HCV. Unless we commit to treat everyone with HCV, we will never eliminate it.

Read more: https://www.healio.com/infectious-disease/hepatitis-c/news/online/%7B860dc0c1-e2c9-4ec2-af40-8d2e1c557972%7D/nine-countries-on-track-to-end-hcv-by-2030-us-not-among-them
New HCV Infections / Opioid Epidemic

A report released in 2018, the Centers for Disease Control and Prevention (CDC) estimated that in 2017 that there were 41,200 new HCV infections in the United States. The new infections were largely fueled by the opioid epidemic sweeping across the country. Many experts believe this figure is likely an underestimate. Read the report: https://www.cdc.gov/hepatitis/statistics/2016surveillance/index.htm

Additionally, another report released in 2018 listed a staggering amount of deaths reported from drug overdoses killing about 72,000 Americans in 2017—their deaths from the peak year of deaths from HIV, car crashes or gun deaths. Read the article: https://drugfree.org/learn/drug-and-alcohol-news/drug-overdoses-killed-72000-americans-last-year-cdc/

Treating People with HCV

Unfortunately, the treatment of people with HCV is still very low when you consider that less than half of the people with HCV have been diagnosed and a fraction of those diagnosed have been treated and cured. One study from 2018 found that less than 10% of people have been treated and cured based on a meta-analysis of studies between January 2003 and July 2013. There are many issues that contribute to the low treatment uptake such as the high cost of the medications, access to medical care, lack of screening, follow-up care, and lack of knowledge about the medications. Hopefully, this will improve in 2019. Read about the study: https://www.medicaldaily.com/hepatitis-c-curable-less-10-35-million-infected-people-are-cured-291184

There are other populations of HCV that have not been treated including people who use drugs and prisoners. There has been a more concerted effort to treat these populations but more needs to be done if we are ever going to eliminate HCV in our lifetime. Read about treating people who use drugs: http://www.aidsmap.com/Meta-analysis-shows-hepatitis-C-treatment-is-highly-effective-for-drug-users/page/3346208/

HCV Screening

The general lack of screening is disappointing. Risk factor and baby boomer screening are not working. HCV is the most common blood-borne infection in the United States, it can be cured and can save millions of lives, but only if it is diagnosed. We have drugs that can cure the virus, require a short duration of treatment, are relatively easy to tolerate, and can cure more than 90% of people who are treated. These reasons strengthen the case for a one-time test for every American. The price of the drugs are also decreasing. What’s stopping us? Read more: https://consumer.healthday.com/infectious-disease-information-21/hepatitis-news-373/too-few-baby-boomers-get-hepatitis-c-screening-732369.html

Alcohol

A study released in 2018 reported that there was no safe level of alcohol. The alcohol study was very
controversial, but it shouldn’t be in the world of liver disease. Additionally, heavy alcohol use is one of the main causes of liver failure, the reason for liver transplantation and death.

*Read more:* https://www.sciencedaily.com/releases/2018/08/180824103018.htm

### DAAs & Liver Transplantation

Not only are DAAs reducing the risk of liver cancer they are also reducing in the number of liver transplants and improving liver transplantation outcomes. The reduction of liver transplants has been dramatic since 2016 and keep the need keeps declining.

Another benefit of DAA therapy is that HCV positive organs from deceased individuals are now being transplanted into people who are HCV negative. Soon after organ transplantation, the people are treated with DAA therapy and cured. This approach gives the people who received the HCV positive transplanted organ a second chance at life. Additionally, studies found that receiving an HCV positive organ did not affect survival of the patient. Pretty amazing!

*Read more:* https://www.healio.com/hepatology/hepatitis-c/news/online/%7B5b2f096d4c-a8bd-4627-acc0-b8dc73658412%7D/daa-therapy-improves-hcv-related-liver-transplantation-outcomes

### Pregnancy

Due in large part to the opioid crisis and the new HCV epidemic there has been an increase in HCV positive pregnant women and children born with HCV. In July 2018, Kentucky passed the first law in the nation that all pregnant women should be screened for HCV during their prenatal visit. Hopefully, other states will take notice and pass similar laws.


### Conclusion

2018 was a year of highs and lows but 2019 has the potential to dramatically change HCV in the United States because of Gilead’s generic subsidiary with the lower price. This action alone could alter the landscape of HCV in more ways than one:

**Optimistically:** The lower drug costs → more efforts for HCV screenings → more people treated/cured → less need for liver transplants → lower rates of liver cancer → increased move towards HCV elimination goal = dramatically lower future deaths from HCV.

*Recommended Reading*

**National Hepatitis Roundtable Year-in-Review:**
http://nvhr.org/sites/default/files/.users/u27/NVHR%20Year-in-Review%202018_Final_0.pdf

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Alan Franciscus is the Executive Director of the HCV Advocate and the Editor-in-Chief of the HCV Advocate Website.
Back in the time before hepatitis C virus (HCV) infection was curable, many of us wondered if we would get liver cancer. Now that HCV is curable, we don’t have to worry about liver cancer, right? Wrong!

Curing hepatitis C doesn’t automatically mean that the liver returns to its healthy, pre-hep C condition. Along the way, many people developed cirrhosis, a severe scarring of the liver. In some cases, this occurred because of waiting a long time for the more effective antiviral therapy that is now available. Also, some people didn’t know they had HCV. They may have consumed alcohol, which accelerates the progression to cirrhosis. Being overweight, eating a poor diet, and being inactive may have sped up the rate of liver damage.

The bottom line is that cirrhosis is a risk factor for hepatocellular carcinoma (HCC). Therefore, if your hep C is gone but you have cirrhosis, you are still at risk for HCC. You are also at risk if your liver damage hasn’t quite progressed to cirrhosis, known as stage 3 fibrosis.

Note: Many people who have hepatitis B are at risk for HCC, regardless of the degree of liver damage. In 2018, the Centers for Disease Control and Prevention (CDC) announced that the death rates from liver cancer jumped 43 percent. While the incidences of most cancers are dropping, the rate of HCC is increasing. In 2000, liver cancer was the ninth leading cause of cancer death; in 2016, it moved to sixth place. The American Cancer Society lists it in 5th place for 2018.

HCC Basics
Here is some basic information about HCC. If you are already knowledgeable about liver cancer, skip to the next part.
Everyone Needs to Know About Liver Cancer — CONTINUED FROM PAGE 5

There are two categories of liver cancer—primary and secondary. Primary liver cancer starts in the liver. Cancerous tumors are called malignant hepatomas, the most common of which are HCC. Secondary liver cancer is more common in the U.S. Also known as metastatic cancer, it starts in another part of the body and spreads to the liver. Because blood filters through the liver, it is a prime target for metastasis.

**HCC Risk Factors**

More than 90 percent of HCC occurs in people with risk factors. The more risk factors, the greater the chances are for developing liver cancer. Gender and age are the two main risks. Of the estimated 42,220 new liver cancer cases in 2018, more than 30,000 occurred in men; more than 11,000 in women. In 2018, there were more than 30,000 deaths from liver cancer; men were twice as likely to die from it. Risk of liver cancer increases with age. The highest increase in cancer rates occurred in adults aged 55 to 64. Certain ethnic groups are at increased risk. Asians and Pacific Islanders have the highest prevalence followed by American Indians/Alaska Natives; African Americans and Latinos have higher liver cancer rates than Caucasians.

Cirrhosis is the biggest risk factor for HCC. According to the CDC, other behaviors and conditions that increase risk for liver cancer are:

- Viral hepatitis
- Excessive alcohol use
- Obesity
- Diabetes
- Having hemochromatosis (excess iron storage)
- Eating foods that are contaminated with aflatoxin (A fungus that can grow on foods, such as grains and nuts that have not been stored properly. In the U.S., most commercially available grains and nuts are safe.)

**The Latest News and Research**

Although liver cancer seems to be gaining ground, so is the research about it. Here are some highlights from the 2018 Liver Meeting held in San Francisco.

**Abstract: #145** The Impact of HCV Sustained Virologic Response from Direct Acting Antiviral and Interferon-Based Treatments on Mortality in a Large Population Based Cohort Study - Naveed Janjua, et al.

This large study (14,033 patients) found that a sustained viral response (SVR) substantially reduced all mortality causes regardless of which medications were used (direct-acting antiviral and interferon-based). Listed from lowest survival to highest, the features that affected survival rate were:

- Cirrhosis no-SVR
- SVR/cirrhosis
- No-SVR/no-cirrhosis

— CONTINUED ON PAGE 7
Abstract: #274 Differences in Hepatocellular Carcinoma Risk, Predictors and Trends over Time According to Etiology of Cirrhosis: A Cohort of 116,404 Patients with Cirrhosis Including 10,042 Who Developed HCC - George Ioannou, et al.

Researchers identified 116,404 patients with cirrhosis diagnosed between 2001-2014 in the Veterans Affairs healthcare system. Patients were divided by the cause of cirrhosis:

- Hepatitis C virus (HCV) (n=52,671)
- Alcoholic liver disease (ALD) (n=35,730)
- Non-alcoholic fatty liver disease (NAFLD) (n=17,354)
- Other (n=10,649)

HCC risk is 3 times greater in cirrhotic patients with HCV than other causes of liver cancer, which strongly suggests that the hepatitis C virus itself may have a direct carcinogenic effect.

Abstract: #31 The Incidence of Extrahepatic Malignancies in Nonalcoholic Fatty Liver Disease (NAFLD) – Stephen B. Hicks, et al.

This study reported that people with NAFLD have more than a 90 percent higher risk of several types of cancer, compared to those without NAFLD. There were roughly three times more cases of liver cancer in the NAFLD group.

A Big Dose of Hope

One of the reasons for HCC’s high mortality rate has to do with the liver itself. With no nerve cells, the liver doesn’t hurt when it is injured. Other parts of the body let us know when there is trouble. The liver quietly goes about its work and may not let you know there is a problem until the damage is extensive.

The symptoms of liver cancer are similar to other health problems, such as gall bladder disease. However, since the symptoms of liver cancer usually don’t show themselves until the later stages of cancer, it is critical that patients consult their medical providers as soon as they are even mildly symptomatic. Wait too long and the tumor may grow too large to treat effectively.

So, if there was a way to diagnose HCC in its earliest stages, theoretically our chances of surviving HCC would be improved. And now for some good news…A recent study reported that researchers found biomarkers that might one day be used to help detect liver cancer in its earlier stages. (High Expression of Glycolytic Genes in Cirrhosis Correlates With the Risk of Developing Liver Cancer – Nathan C.W.Lee, et al. Frontiers in Cell and Developmental Biology October 2018)

Screening People Who Have Cirrhosis

In August 2018, the American Association for the Study of Liver Diseases (AASLD) published the latest practice guidelines regarding HCC. The Diagnosis, Staging,
Everyone Needs to Know About Liver Cancer — CONTINUED FROM PAGE 7

and Management of Hepatocellular Carcinoma: 2018 Practice Guidance by the American Association for the Study of Liver Diseases by Jorge A. Marrerom et al, is available at the AASLD website (www.aasld.org).

People who are at increased risk for HCC are those with cirrhosis, regardless of the liver disease that led to the cirrhosis. Other conditions that need to be monitored:

• Hepatitis B carrier with or without cirrhosis need to be monitored for HCC
• Hepatitis C cirrhosis or stage-3 fibrosis
• NAFLD

Liver cancer surveillance utilizes blood tests and ultrasound examinations of the liver every 6 months. Performed regularly, this significantly increases the number of cancers that are found at early stages and substantially improves the chances of surviving HCC.

Reducing the Odds: HCC Prevention

If you don’t have a risk factor that requires regular HCC surveillance, then prevention is key. Everything that prevents hepatitis or cirrhosis reduces liver cancer risk. If you have any risk factors for HCC, be sure your healthcare provider conducts regular screening for it. Additionally, you can use this online risk calculator: www.hccrisk.com

Here are some ways to reduce your risk:

• Be immunized against hepatitis A and B.
• If you have hepatitis C, get treated.
• Abstaining from alcohol, or limit it to one drink per day for women; two drinks per day for men.
• Maintain a normal weight.
• Exercise regularly.
• Eat a healthy diet.
• Quit smoking.
• Avoid anabolic steroid use.
• Drink coffee. Patients with chronic hepatitis C and advanced liver disease who drink three or more cups of coffee per day have a lower risk of liver disease progression than non-coffee drinkers.

To date, no herbs or dietary supplements have been proven to prevent HCC. What about cannabis? Study results have been mixed. However, recent research published in the Canadian Journal of Gastroenterology and Hepatology, found that marijuana use in those with HCV was tied to lower cirrhosis rates. I wouldn’t start using marijuana based on this, but I might feel relieved if I was already using it.

In summary, taking care of our health is the best weapon against all cancer. Exercise, maintaining a normal body weight and healthy eating habits are essential. Regular screening for those at risk for HCC and other forms of cancer is critical. Although HCC is a serious, potentially life-threatening form of cancer, we are not completely helpless against it. If you are at risk for HCC, talk to your healthcare provider. Although the liver is a silent organ, we need to speak up about our health.

Lucinda Porter, RN, is a long-time contributor to the HCV Advocate and author of “Free from Hepatitis C” and “Hepatitis C One Step at a Time.” She blogs at www.LucindaPorterRN.com and HepMag.com
Florida Department of Health Issues Hepatitis A Health Advisory—Encourages Vaccination

On November 28, 2018 the Florida Department of Health issued a press release warning of a rise in the number of cases of hepatitis A in the state. The state reported a three-fold increase in hep A cases in 2018 compared to the previous five years. The advisory reemphasized the importance of the hepatitis A vaccination.

Oregon Aims to Eliminate Hepatitis C Infections

This December 3, 2018 article by Lynne Terry in the Lund Report discusses the Oregon Health Authority’s expansion of hepatitis C treatment to everyone on the Oregon Health Plan. Oregon has the highest hepatitis C mortality rate in the United States and the third highest rate of infection. State analyses show that treating just 12 percent of those infected could eliminate the virus in Oregon in a decade.

Millions flock to free tests as Egypt seeks to eradicate hepatitis C

Reuters reported this piece by Mahmoud Mourad and Lena Masri on December 3, 2018. Egypt has the highest prevalence of hepatitis C in the world, and it is the third leading cause of death in the country. The Egyptian Health Ministry launched a campaign to detect, treat and eliminate hep C by 2022. The campaign also tests for diabetes and high blood pressure.
A new year is a new start and what better way to start 2019 than with fact sheets that help us stay healthy. We have selected the following fact sheets for your review:

1. **Hand Washing: A Primer**
2. **Nutrition and HCV**
3. **Meditation**
4. **Sleep is one of the most important components of health: Sleep**

Learn about the many benefits of meditation:

- Meditation

One of the best strategies to prevent illness: Hand Washing: A Primer

Watch Our Video!

Click here to listen to a real patient talk about her journey from diagnosis to treatment to cure.

Don’t forget to check out the PackHealth – a free resource to help patients navigate their HCV treatment journey from applying for treatment to cure!

Do you have hepatitis C? Get support. Get answers.

- Get a personal Health Advisor to coach you on your journey.
- Develop a personalized plan – you set the goals, we’ll help you get there.
- Find answers and accountability to get the results you want.
- Use the tools and guides we send you to track your progress.

Enroll online: packhealth.com/hcv

As easy as 1-2-3!
1. Enter your contact info
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Questions? Call us at 888-255-2362
8am-5pm | Monday-Friday