LIVER CANCER (HEPATOCELLULAR CARCINOMA, HCC)

1. **Guidelines for Screening**

**Risk factors**

Screening is considered cost effective for:
- Hepatitis B carriers when the risk is >0.2% / year
- Hepatitis C carriers when the risk is >1.5% / year
- Asian male hepatitis B carriers age >40
- Asian female hepatitis B carriers age >50
- Hepatitis B carriers with a family history of HCC
- African / North American Blacks with Hepatitis B
- Cirrhotic hepatitis B carriers
- Hepatitis C cirrhosis
- Primary biliary cirrhosis (Stage 4)
- Genetic hemachromatosis and cirrhosis
- Alpha 1-antitrypsin deficiency and cirrhosis
- Other cirrhosis

**Screening**

Patients at increased risk as defined above should be entered into a surveillance program

Abdominal ultrasonography imaging every 6 months

**Alpha-fetoprotein (AFP) and DCP (Prothrombin Induced by Vitamin K Absence II (PIVKA II) are not recommended for liver cancer screening**
2. Cancer Prevention

In the United States, liver cancer can usually be avoided by preventing viral hepatitis and cirrhosis. A vaccine can protect healthy people from contracting hepatitis B. The U.S. Centers for Disease Control and Prevention recommends that all children should be vaccinated. Newborn nursery vaccination is recommended. Adults should be vaccinated if they have not been exposed to hepatitis B.

There is no vaccine against hepatitis C, which is most often associated with current or previous intravenous (IV) drug abuse. Blood banks in the United States check donated blood to make sure that blood carrying the hepatitis viruses is not used.

Cirrhosis can be avoided by not abusing alcohol and preventing viral hepatitis. Most industrialized countries have regulations to protect people from cancer-causing chemicals; in the United States, such regulations have virtually eliminated these chemicals as a cause of HCC.

There is increasing evidence that certain medications can control chronic hepatitis B or C infection. Hepatitis B can be treated with a combination of antiviral drugs such as interferon-alpha, lamivudine, and adefovir.

**Hepatitis C can be treated with interferon-alpha and ribavirin.** The U.S. Food and Drug Administration has recently approved a highly effective new drug Harvoni (ledipasvir and sofosbuvir) to treat chronic hepatitis C virus (HCV) genotype 1 infection.

Harvoni is the first combination pill approved to treat chronic HCV genotype 1 infection. It is also the first approved regimen that does not require administration with interferon or ribavirin, two FDA-approved drugs also used to treat HCV infection.

Both drugs in Harvoni interfere with the enzymes needed by HCV to multiply. Sofosbuvir is a previously approved HCV drug marketed under the brand name Sovaldi. Harvoni also contains a new drug called ledipasvir.
Harvoni is the third drug approved by the FDA to treat chronic HCV infection. The FDA approved Olysio (simeprevir) in November 2013 and Sovaldi in December 2013.

Harvoni’s efficacy was evaluated in three clinical trials and was shown to be from 94-99% effective in eliminating the Hepatitis C virus after 12 weeks of treatment.

Avoid drug abuse and contaminated needles and practice safe sex

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