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RESEARCH ARTICLE

VIRAL HEPATITIS-PROGRESS TOWARDS ELIMINATION

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Abstract

Viral hepatitis affects millions of people worldwide¹. WHO aims to eliminate viral hepatitis by 2030 by reducing deaths and new infections from hepatitis B, hepatitis C and HBsAg to <0.1% in children under 5 years of age. Viral hepatitis is an infection of the liver that causes inflammation and liver damage². There are several types of viruses that cause hepatitis, including hepatitis A, B, C, D, and E³. The purpose of this article is to review epidemiology, review articles from PubMed, NCBI, WHO, CDC's strategic framework for global immunization, and hepatitis elimination, prevention, and treatment to introduce viral hepatitis, vaccination against hepatitis, and observed global hepatitis efforts to end it.

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Introduction:-

There are five types of hepatitis viruses: hepatitis A, B, C, D and E. Hepatitis A and E are spread primarily through ingestion of contaminated food and water, and although the disease is often epidemic in countries with scarce clean water and poor sanitation, it rarely becomes chronic. Hepatitis B is spread through contact with the blood and other body fluids of an infected person. Anyone can catch her hepatitis B virus, but babies born to infected mothers are at higher risk. Hepatitis C is primarily spread through blood-to-blood contact, including unsafe injection practices and improper sterilization of medical devices. Hepatitis D is transmitted through contact with infected blood and occurs only in people who already have hepatitis B. "Hepatitis is one of the most devastating diseases on the planet, but it is also one of the most preventable and treatable diseases, and with the right services at the primary care level, it can be easily and cheaply delivered." Said Dr. Tedros Adhanom Ghebreyesus, WHO Director-General.⁴ Viral hepatitis, including acute cases, cirrhosis, and liver cancer, is estimated to kill 1.1 million people worldwide in 2019, according to the World Health Organization (WHO). Worldwide, there are 354 million people still living with this life-threatening infection, and it is estimated that at least one person dies from viral hepatitis every 30 seconds. About 296 million people have hepatitis B. Currently, 58 million people have hepatitis C, with approximately 1.5 million new infections each year. An estimated 3.2 million adolescents and children suffer from chronic hepatitis C infection.⁵

CDC Global Immunization Strategic Framework⁶

The CDC Global Immunization Strategic Framework 2021–2030 (CDC GISF 2021-2030) Provides a roadmap toward achieving a world where everyone, everywhere is protected from vaccine-preventable disease (VPD), disability, and death and providing scientific and programmatic leadership to end VPD risks.

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CDC seeks to strengthen immunization program capacities by:

- ✓ Preventing VPDs by strengthening immunization services.
- ✓ Detecting VPDs by supporting and improving screening of disease.
- ✓ Respond and prepare for VPD outbreaks.

Two Goals are cross-cutting capacities:

- ✓ Sustain immunization program capacities over time.
- ✓ Innovate to increase immunization program impact through research and evaluation.

Elimination Of Viral Hepatitis Worldwide

Despite there being a vaccine and effective treatment for hepatitis B and a cure for hepatitis C – few countries in the world are on track to achieve the WHO target of eliminating viral hepatitis by 2030 (Polaris Observatory - CDA Foundation)⁴. In 2016, the World Health Assembly adopted the Global Health Sector Strategy (GHSS) on viral hepatitis. The GHSS called for the elimination of viral hepatitis B and C infections as a public health problem (by 2030, 90% less incidence than before (95% for HBV, 95% for HCV, defined as a 65% reduction in mortality) 2015 baseline). WHO has identified viral infections as a public health problem, with a particular focus on hepatitis B virus (HBV) and hepatitis C virus (HCV). They have developed this interim guidance for countries and other stakeholders seeking validation of the elimination of hepatitis.⁷

Prevention And Treatment.

WHO recommends that all adults, adolescents, and children up to 3 years of age with chronic hepatitis C infection be treated with a pan-genotype direct-acting antiviral (DAA). DAA He can cure most people with HCV infection, and the duration of treatment is short (usually 12-24 weeks), depending on whether cirrhosis is present.

In 2022, WHO included new recommendations to treat adolescents and children with the same pan-genetic therapies as adults. The most widely used and least expensive pan genotypic DAA regimens are sofosbuvir and daclatasvir.

Of the 58 million people living with HCV infection worldwide in 2019, an estimated 21% (15.2 million) were aware of their diagnosis, and approximately 62% of those diagnosed with chronic HCV infection. (9.4 million) were receiving treatment by the end of the year. DAA will come into force by 2019. Antiviral drugs can cure him of more than 95% of her hepatitis C infections, but access to diagnosis and treatment is poor.

Adequate fluid and nutrition should be included in diet to maintain nutritional balance and replacement of fluids caused by vomiting and diarrhoea in hepatitis A. A package of viral hepatitis prevention services contributes to broader health outcomes and should include:

1. Public health and personal hygiene measures along with standard precautions.
2. Post exposure prophylaxis
3. vaccination against HBV and possibly against HAV and HEV (HEV vaccine has been developed and licensed in China but is not yet widely available).
4. Injection, Blood, and Surgery Safety and General Precautions.
5. Prevention of mother-to-child transmission of HBV.
6. Treatment of chronic HBV and HCV infections as secondary and tertiary prevention.

Vaccinations Against Viral Hepatitis

Two doses of the single hepatitis A vaccine are given 6 months apart. A combination of vaccine which protects people from both hepatitis A and hepatitis B. The combination vaccine can be given to anyone over the age of 18 and he will receive three doses over a period of six months. All three vaccinations are required for long-term protection against both hepatitis A and hepatitis B.

Following people should get vaccination against hepatitis A:

- ✓ All children aged 1 year or older. All children and adolescents aged 2 to 18 who have not previously vaccinated by hepatitis A
- ✓ People at high threat for hepatitis A infection
- ✓ Those at increased threat of serious illness from hepatitis A infection
- ✓ Pregnant women who are at risk of hepatitis A or at risk of serious complications from hepatitis
- ✓ All Persons who wish to get vaccinated.

Hepatitis B is a vaccine-preventable disease⁶. At least three doses of the hepatitis B vaccine are required to prevent infection with the hepatitis B virus (HBV). For complete prophylaxis, the first dose should be given to the baby within 24 hours of birth, after which he should be given 2-3 more doses of hepatitis vaccine. Those people who are vaccinated with hepatitis B vaccine are immune for life.⁷

Following peoples should get vaccination against Hepatitis B:

- ✓ At birth, Infants should get their first dose of hepatitis B vaccine.
- ✓ Anyone 59 years of age or younger who has not yet vaccinated.
- ✓ Anyone 60 years or older who were not vaccinated previously.

There is currently no effective vaccine against hepatitis C.⁹

Efforts To End Viral Hepatitis

The new WHO Global Health Sector Strategy (GHSS) on viral hepatitis, 2022-2030, recently reviewed and noted at the world health Assembly the the strategy contains operational and strategic shifts to ensure that globally we are on track to achieve the 2030 goal of ending the disease of viral hepatitis.⁶

Following measures could be adapted to achieve goals to eliminate viral hepatitis:

- ✓ Priority should be given to health needs of women's and children.
- ✓ Timely availability of hepatitis vaccine at the time of birth.
- ✓ Maximum access to hepatitis tests and care in low- and middle-income countries
- ✓ Health education programs about viral hepatitis infection, its transmission and prevention
- ✓ Raising awareness about stigma and discrimination among people.

Conclusion:-

Viral hepatitis is an inflammatory disease that affects people worldwide. WHO aims to prevent the spread of the disease through strategic measures to raise awareness of the disease. Fewer testing options and limited resources make viral hepatitis eradication even more difficult. Treatment must be easily accessible, even for patients living in remote areas. WHO is taking action to eliminate viral hepatitis by 2030 so that all patients suffering from viral hepatitis can be contacted, diagnosed, and treated effectively; Efforts should be made to work with providers to raise awareness and focus on: Screen and coach communities to reach their goals.

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