Hepatitis B is the most serious of the three types of viral hepatitis. Transmission occurs mainly through blood and blood products, from an infected mother to her child and, in some instances, between sexual partners.

This infection is a major public health problem in the Western Pacific. Of the estimated 300 million chronic carriers of hepatitis B virus in the world, about 80 per cent live in Asia and Oceania.

Hepatitis B can develop into serious liver disease and cancer of the liver in persons in their 40s and 50s. This is particularly true if the virus infection occurs early in life, as in cases of transmission from mother to child. Fortunately, it can be prevented by immunization.

A major obstacle

In highly endemic countries, the effective way to control the disease is by immunizing all newborn babies against it. However, the high costs of commercially available vaccine normally poses a major obstacle for mass immunization of the newborn. Under these circumstances, immunization of the general population is not a priority.

At present, 23 of the 35 countries and areas in the Western Pacific Region have started hepatitis B immunization of the newborn child; nine more are expected to start in 1990.

Sharing of knowledge and expertise has been the linchpin of the hepatitis B control programme in this region. WHO's promotion of the transfer of the technology for large-scale production of effective hepatitis B vaccine from Japan to China is an excellent example. China already had the basic production technology, but only on a small scale. This provided a starting point for the transfer of the technology for large-scale production.
In highly endemic countries, the effective way to control hepatitis B is by immunizing all newborn babies against it." Vaccine research – and delivery – in Fiji.

China can now produce 20 million doses of hepatitis B vaccine per year. However, this is only enough to give the first of three doses to the 20 million babies born every year in China. Another 40 million doses are needed every year to fully immunize all babies. To achieve this goal, China is expanding its use of both conventional and new techniques of vaccine production.

Another scheme works in countries where local production of hepatitis B vaccines is not feasible. This involves collecting high-titre HBsAg plasma, a component of blood, from local people which is then sent to Japan for processing into hepatitis B vaccine. This is in turn sent back to these countries, free of charge, for their use. The countries now using this scheme are Fiji, Papua New Guinea, Samoa and Tonga. It will be expanded to other countries in the near future.

These two schemes of production enable countries that need hepatitis immunization to provide it to their people even though their technical and financial resources are limited.

Singapore vaccinates all babies

Singapore is one of only four countries in the world which make hepatitis B vaccination available to all newborn babies. The government expects to get rid of the disease in a single generation by breaking the chain of transmission through childhood immunization.

This service was made available in some places in 1985 and at all maternal and child health centres in 1986, primarily for children with carrier mothers, to whom the first dose was given free of charge. Every child under 18 years of age is now eligible for these injections at all government and private hospitals and clinics. They have also been made available to adults since 1987.

The cost of three injections at the government hospitals is 25 Singapore dollars (about US$12.50) for children under 18, $35 (US$17.50) for the next age group, and $50 (US$25) for adults over 40. It costs more at private hospitals and clinics.

To promote hepatitis B vaccination for all who need it, the government has authorized the use of Medisave to pay for it. Medisave, a national saving scheme for medical expenses, formerly covered only hospital charges and surgery expenses.

By the end of 1988, the coverage of hepatitis B vaccination for newborn babies in government hospitals was between 84 and 92 per cent. In private hospitals, it was between seven and nine per cent. The government's Committee on Epidemic Diseases is collaborating closely with private hospitals to increase immunization coverage in the private sector; reducing the cost of the vaccine is considered to be one essential measure.

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