

Air-/Droplet- Borne Diseases Vector-Borne/ Zoonotic Diseases Food-/Water- Borne Diseases **Blood-Borne Diseases** Environment- Related Diseases Childhood Immunisation

- Hepatitis B

IV BLOOD-BORNE DISEASES

Blood-borne pathogens are microorganisms such as viruses or bacteria that are carried in blood and can cause disease in humans.

There are many different blood-borne pathogens including syphilis, brucellosis, hepatitis B (HBV), hepatitis C (HCV) and Human Immunodeficiency Syndrome (HIV).

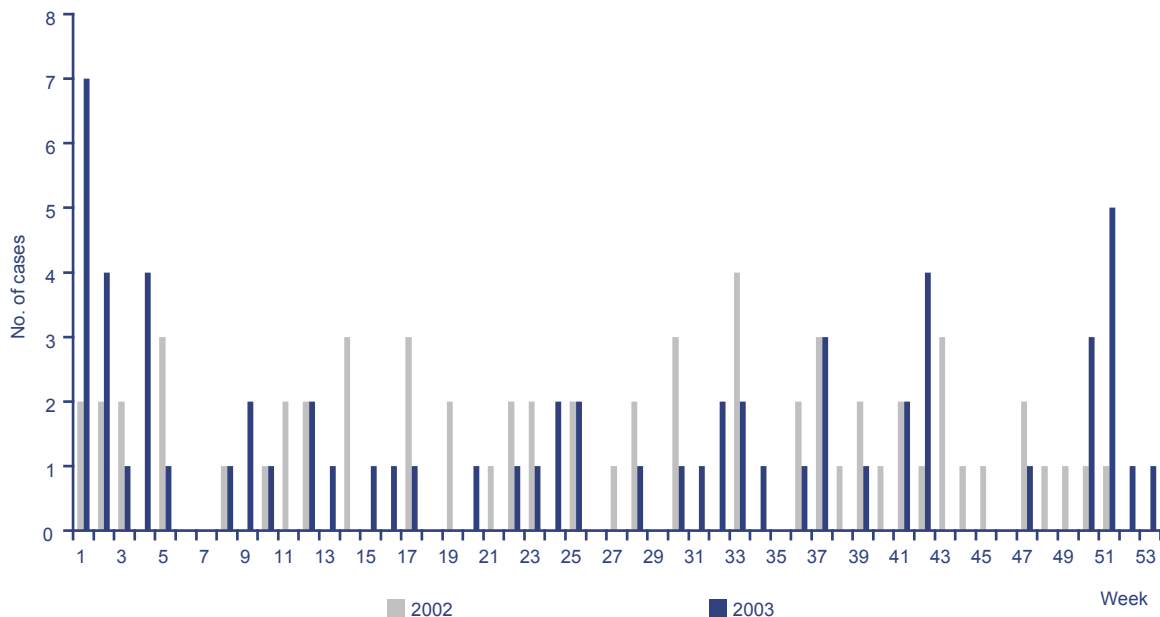
The mode of transmission is via infected human blood and body fluids. Mechanism of infection commonly includes transfusion of blood or blood products, sexual contact, contaminated IV drug use paraphernalia or by accidental occupational exposure.

HEPATITIS B

Hepatitis B virus is a small DNA virus that belongs to the Hepadnaviridae family of viruses. The common symptoms of hepatitis B infection include: fever, fatigue, muscle or joint pain, loss of appetite, mild nausea and vomiting. More severe symptoms include: jaundice (yellow eyes and skin) and ascites (bloated and swollen stomach).

A total of 64 cases of acute hepatitis B were reported in 2003 compared with 63 in 2002. (Figure 4.1) Four were patients seeking medical treatment in Singapore. All cases were serologically confirmed with the presence of hepatitis B surface antigen (HBsAg) and anti-HBc IgM antibody, associated with acute clinical presentation.

Figure 4.1
E-weekly distribution of reported hepatitis B cases, 2002-2003



Males were six times more likely to be infected (male to female ratio 6.5:1) and 45% of cases occurred in the 25-34 years age group. (Table 4.1)

Among the three major ethnic groups, Malays had a marginally higher rate of hepatitis B. (Table 4.2)

Table 4.1
Age-gender distribution and age-specific incidence rates of reported acute hepatitis B cases[^], 2003

| Age (Yrs) | Male | Female | Total (%) | Incidence rate per 100,000 population* |
|--------------|-----------|----------|-------------------|--|
| 0 - 4 | 0 | 0 | 0 (0.0) | 0.0 |
| 5 - 14 | 0 | 0 | 0 (0.0) | 0.0 |
| 15 - 24 | 5 | 2 | 7 (11.7) | 1.1 |
| 25 - 34 | 24 | 3 | 27 (45.0) | 3.1 |
| 35 - 44 | 9 | 0 | 9 (15.0) | 1.2 |
| 45 - 54 | 5 | 2 | 7 (11.7) | 1.2 |
| 55+ | 9 | 1 | 10 (16.6) | 1.7 |
| Total | 52 | 8 | 60 (100.0) | 1.4 |

[^] Excluding 4 foreigners seeking medical treatment in Singapore.

*Rates are based on 2003 estimated mid-year population.

(Source: Singapore Department of Statistics)

Table 4.2
Ethnic-gender distribution and ethnic-specific incidence rates of reported acute hepatitis B cases[^], 2003

| | Male | Female | Total (%) | Incidence rate per 100,000 population* |
|--------------------|-----------|----------|-------------------|--|
| Singapore Resident | | | | |
| Chinese | 27 | 5 | 32(53.3) | 1.2 |
| Malay | 7 | 0 | 7 (11.7) | 1.5 |
| Indian | 2 | 0 | 2 (3.3) | 0.7 |
| Others | 1 | 1 | 2 (3.3) | 3.4 |
| Foreigner | 15 | 2 | 17 (28.4) | 2.3 |
| Total | 52 | 8 | 60 (100.0) | 1.4 |

[^] Excluding 4 foreigners seeking medical treatment in Singapore.

*Rates are based on 2003 estimated mid-year population.

(Source: Singapore Department of Statistics)

A wide spectrum of occupational groups were affected by hepatitis B throughout the year. It is of interest to note the similar incidence

amongst cleaners/labourers/related workers and professionals/administrators. (Table 4.3)

Table 4.3
Distribution of acute hepatitis B cases by occupation, 2003

| Occupation | Total | % |
|--|-----------|--------------|
| Cleaners, labourers and related workers | | |
| Construction labourers and related workers | 6 | 10.0 |
| Domestic helpers (general) | 3 | 5.0 |
| Hotel porter | 1 | 1.7 |
| Clerical workers | 2 | 3.3 |
| Professionals/administrators | | |
| Businessmen/self-employed | 7 | 11.6 |
| Engineers/technicians/electricians | 3 | 5.0 |
| Managers | 2 | 3.3 |
| Teaching professional | 1 | 1.7 |
| Plant and machine operators and assemblers | | |
| Operator (machine operator not elsewhere) | 1 | 1.7 |
| Drivers | 5 | 8.3 |
| Production craftsmen and related workers | 4 | 6.7 |
| Service workers and shop/market sales workers | | |
| Air stewardess/waitresses/bartender | 1 | 1.7 |
| Wholesale and retail trade salesman | 2 | 3.3 |
| Deliveryman | 1 | 1.7 |
| Hairstylist/hairdresser | 1 | 1.7 |
| Others | | |
| Army officer | 1 | 1.7 |
| Housewives | 4 | 6.7 |
| Unemployed/retired | 8 | 13.3 |
| Prisoners | 2 | 3.3 |
| Workers not reporting any occupation | 5 | 8.3 |
| Total | 60 | 100.0 |