

The Importance of Safe Sex, HIV Screening And Treatment Adherence: Study of Four Cases in Central Taiwan, 2017

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Abstract

When investigating a newly diagnosed human immunodeficiency virus (HIV) case, we found that three other cases were linked to this case. The genotyping analysis showed that the virus strains were homologous. The four cases did not use condoms and did not receive routine HIV screening. This HIV heterosexual transmission event highlighted the importance of safe sex and HIV screening. We recommend that people who ever had unprotected sex should receive HIV screening. The HIV-infected people should receive treatment as soon as possible and take medicine regularly to suppress viral loads and prevent further HIV transmission.

Keywords: Human immunodeficiency virus, heterosexual transmission, safe sex, HIV screening, treatment adherence

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Weekly Data of Notifiable Infectious Diseases (by week of diagnosis)

Case diagnosis year		Week 1★		Week 1			
Classification	Disease Diagnosed	2020	2019	2020		2019	
				Total cases★	Imported cases	Total cases★	Imported cases
Category I	Plague	0	0	0	0	0	0
	Rabies	0	0	0	0	0	0
	SARS	0	0	0	0	0	0
	Smallpox	0	0	0	0	0	0
	Acute Flaccid Paralysis	1	1	1	0	1	0
Category II	Acute Viral Hepatitis type A	1	0	1	0	0	0
	Amoebiasis	8	0	8	2	0	0
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	0	0	0	0	0	0
	Cholera	0	0	0	0	0	0
	Dengue Fever	4	12	4	4	12	12
	Diphtheria	0	0	0	0	0	0
	Enterohemorrhagic E. coli Infection	0	0	0	0	0	0
	Epidemic Typhus Fever	0	0	0	0	0	0
	Hantavirus Pulmonary Syndrome	0	0	0	0	0	0
	Hemorrhagic Fever with Renal Syndrome	0	0	0	0	0	0
	Malaria	0	1	0	0	1	1
	Measles	1	1	1	1	1	1
	Meningococcal Meningitis	0	0	0	0	0	0
	Paratyphoid Fever	0	0	0	0	0	0
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0
	Shigellosis	4	1	4	0	1	0
	Typhoid fever	0	3	0	0	3	3
	West Nile Fever	0	0	0	0	0	0
Zika virus infection	0	0	0	0	0	0	
Category III	Acute Viral Hepatitis type B	3	5	3	0	5	0
	Acute Viral Hepatitis type C	15	10	15	0	10	0
	Acute Viral Hepatitis type D	0	0	0	0	0	0
	Acute Viral Hepatitis type E	0	0	0	0	0	0
	Congenital Syphilis	0	0	0	0	0	0
	Congenital Rubella Syndrome	0	0	0	0	0	0
	Enteroviruses Infection with Severe Complications	0	0	0	0	0	0
	Haemophilus Influenza type b Infection	0	0	0	0	0	0
	Japanese Encephalitis	0	0	0	0	0	0
	Legionnaires' Disease	4	4	4	0	4	1
	Mumps	11	12	11	0	12	0
	Neonatal Tetanus	0	0	0	0	0	0
	Pertussis	3	0	3	0	0	0
	Tetanus	0	0	0	0	0	0
Category IV	Botulism	0	0	0	0	0	0
	Brucellosis	0	0	0	0	0	0
	Complicated Varicella	0	1	0	0	1	0
	Endemic Typhus Fever	0	0	0	0	0	0
	Herpesvirus B Infection	0	0	0	0	0	0
	Influenza Case with Severe Complication	78	25	78	0	25	0
	Invasive Pneumococcal Disease	11	15	11	0	15	0
	Leptospirosis	0	2	0	0	2	0
	Listeriosis	0	0	0	0	0	0
	Lyme Disease	0	0	0	0	0	0
	Melioidosis	0	0	0	0	0	0
	Q Fever	0	0	0	0	0	0
	Scrub Typhus	5	9	5	0	9	0
	Toxoplasmosis	0	0	0	0	0	0
Tularemia	0	0	0	0	0	0	
Category V	Ebola Virus Disease	0	0	0	0	0	0
	Lassa Fever	0	0	0	0	0	0
	Marburg Hemorrhagic Fever	0	0	0	0	0	0
	Middle East Respiratory Syndrome	0	0	0	0	0	0
	Coronavirus Infections	0	0	0	0	0	0
	Novel Influenza A Virus Infections	0	0	0	0	0	0
Rift Valley Fever	0	0	0	0	0	0	
Yellow Fever	0	0	0	0	0	0	

- ★The weekly and cumulative total numbers include indigenous and imported cases of notifiable infectious diseases.
- MDR-TB, Tuberculosis, Syphilis, Gonorrhoea, HIV Infection, AIDS, Hansen's Disease and Creutzfeldt-Jakob Disease are excluded from the table.
- Numbers of mumps and tetanus cases are summed up by the week of report.
- Since 2018/1/1, "Listeriosis" was listed as a Notifiable Infectious Disease.

Suspected Clusters

- Fifty-two clusters were reported during week 1, including 11 tuberculosis clusters, 10 diarrhea clusters, 8 upper respiratory tract infection clusters, 21 influenza-like illness clusters, 1 varicella clusters, and 1 fever of unknown origin cluster.

Imported Infectious Diseases

- There were 12 imported cases from 9 countries during week 1 of 2020.

Diseases \ Countries	Indonesia	Vietnam	Italian	Japan	Myanmar	Thailand	China	Cambodia	Philippines	Total
Amoebiasis	4						1			5
Dengue Fever		1			1	1		1		4
JE				1						1
Measles			1							1
Shigellosis									1	1
Total	4	1	1	1	1	1	1	1	1	12

- There are 7 imported cases from 6 different countries in 2020. The countries are Indonesia (2), Italian (1), Vietnam (1), Cambodia (1), Myanmar (1), Thailand (1).
- Top 3 imported diseases are Dengue Fever (4), Amoebiasis (2), and Measles (1).

Summary of Epidemic

- **Influenza** : The influenza activity is high and continues to increase.

Weekly Data of Notifiable Infectious Diseases (by week of diagnosis)

Case diagnosis year		Week 2★		Week 1-2			
Classification	Disease Diagnosed	2020	2019	2020		2019	
				Total cases★	Imported cases	Total cases★	Imported cases
Category I	Plague	0	0	0	0	0	0
	Rabies	0	0	0	0	0	0
	SARS	0	0	0	0	0	0
	Smallpox	0	0	0	0	0	0
Category II	Acute Flaccid Paralysis	0	0	1	0	1	0
	Acute Viral Hepatitis type A	4	0	5	0	0	0
	Amoebiasis	5	6	13	4	6	3
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	0	0	0	0	0	0
	Cholera	0	0	0	0	0	0
	Dengue Fever	12	7	16	16	19	19
	Diphtheria	0	0	0	0	0	0
	Enterohemorrhagic E. coli Infection	0	0	0	0	0	0
	Epidemic Typhus Fever	0	0	0	0	0	0
	Hantavirus Pulmonary Syndrome	0	0	0	0	0	0
	Hemorrhagic Fever with Renal Syndrome	0	0	0	0	0	0
	Malaria	0	0	0	0	1	1
	Measles	1	0	2	2	1	1
	Meningococcal Meningitis	1	1	1	0	1	0
	Paratyphoid Fever	0	0	0	0	0	0
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	0	0	0	0
	Shigellosis	6	1	10	3	2	0
Typhoid fever	0	0	0	0	3	3	
West Nile Fever	0	0	0	0	0	0	
Zika virus infection	0	0	0	0	0	0	
Category III	Acute Viral Hepatitis type B	2	1	5	0	6	0
	Acute Viral Hepatitis type C	13	20	28	0	30	0
	Acute Viral Hepatitis type D	0	0	0	0	0	0
	Acute Viral Hepatitis type E	1	3	1	0	3	0
	Congenital Syphilis	0	0	0	0	0	0
	Congenital Rubella Syndrome	0	0	0	0	0	0
	Enteroviruses Infection with Severe Complications	0	0	0	0	0	0
	Haemophilus Influenza type b Infection	0	0	0	0	0	0
	Japanese Encephalitis	0	0	0	0	0	0
	Legionnaires' Disease	11	10	15	2	14	1
	Mumps	10	8	21	1	20	0
	Neonatal Tetanus	0	0	0	0	0	0
	Pertussis	1	0	4	0	0	0
Tetanus	0	0	0	0	0	0	
Category IV	Botulism	0	0	0	0	0	0
	Brucellosis	0	0	0	0	0	0
	Complicated Varicella	4	0	4	0	1	0
	Endemic Typhus Fever	0	0	0	0	0	0
	Herpesvirus B Infection	0	0	0	0	0	0
	Influenza Case with Severe Complication	119	49	197	3	74	0
	Invasive Pneumococcal Disease	23	13	34	0	28	0
	Leptospirosis	0	1	0	0	3	0
	Listeriosis	1	5	1	0	5	0
	Lyme Disease	0	0	0	0	0	0
	Melioidosis	0	0	0	0	0	0
	Q Fever	0	0	0	0	0	0
	Scrub Typhus	8	13	13	1	22	0
Toxoplasmosis	0	0	0	0	0	0	
Tularemia	0	0	0	0	0	0	
Category V	Ebola Virus Disease	0	0	0	0	0	0
	Lassa Fever	0	0	0	0	0	0
	Marburg Hemorrhagic Fever	0	0	0	0	0	0
	Middle East Respiratory Syndrome	0	0	0	0	0	0
	Coronavirus Infections	0	0	0	0	0	0
	Novel Influenza A Virus Infections	0	0	0	0	0	0
Rift Valley Fever	0	0	0	0	0	0	
Yellow Fever	0	0	0	0	0	0	

1. ★The weekly and cumulative total numbers include indigenous and imported cases of notifiable infectious diseases.
2. MDR-TB, Tuberculosis, Syphilis, Gonorrhoea, HIV Infection, AIDS, Hansen's Disease and Creutzfeldt-Jakob Disease are excluded from the table.
3. Numbers of mumps and tetanus cases are summed up by the week of report.
4. Since 2018/1/1, "Listeriosis" was listed as a Notifiable Infectious Disease.

Suspected Clusters

- Forty-three clusters were reported during week 2, including 6 tuberculosis clusters, 15 diarrhea clusters, 7 upper respiratory tract infection clusters, 10 influenza-like illness clusters, 5 varicella clusters.

Imported Infectious Diseases

- There were 26 imported cases from 7 countries during week 2 of 2020.

Diseases	Countries							Total
	Indonesia	Philippines	China	Vietnam	Thailand	Myanmar	Brunei	
Dengue Fever	1	5		3	2	1		12
Shigellosis	4							4
Amoebiasis	3							3
Influenza Case with Severe Complications			2				1	3
Legionnaires' Disease		1	1					2
Measles				1				1
Scrub Typhus			1					1
Total	8	6	4	4	2	1	1	26

- There are 31 imported cases from 9 different countries in 2020. The top 3 countries are Indonesia (8), Philippines (6), Vietnam (5).
- Top 3 imported diseases are Dengue Fever (16), Amoebiasis (4), Influenza Case with Severe Complications (3) or Shigellosis (3).

Summary of Epidemic

- **Influenza** : As the temperature has fluctuated drastically, influenza activity is expected to continue high.

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