

Family Cluster of Indigenous Acute Hepatitis A in Taipei Region, Taiwan, 2015–2016

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Abstract

Taipei Regional Center, Taiwan Centers for Disease Control (TCDC) confirmed two family clusters of indigenous acute hepatitis A infection in Xindian District, New Taipei City occurred in July 2015 and March 2016, respectively. The genotype of hepatitis A virus in the former cluster was IA cluster 1 (genetic similarity: 94.5% to 99.5%) and in the latter cluster was IA Cluster 4 (genetic similarity: 94.6% to 100%). The two index cases had history of sexually transmitted diseases, suggesting that the index cases in both clusters were likely infected because of unsafe sex, and then transmitted to their household contacts. We recommend that health authorities should monitor the health status on close contacts of confirmed cases regularly, implement preventive measures timely, provide health education and urge those who do not have hepatitis A antibodies to receive 2 doses of self-paid hepatitis A vaccine in order to lower the risk of infection.

Keywords: Hepatitis A, Family cluster

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Improving the Local Government Dengue Fever Prevention Skills – Using Examples of “Breeding Site Elimination Mentoring Project” and “Breeding Site Elimination Project”

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Abstract

In 2015, severe dengue fever outbreak occurred in Tainan City in Taiwan. Breeding site elimination was urgently needed. The Central Epidemics Command Center of dengue fever and Tainan City government planned “Breeding site elimination mentoring project” and “Breeding site elimination project” to train local government and volunteers to become skillful breeding site elimination personnel. After that, the trained skillful personnel began to assess the outcomes of breeding site elimination measures and to improve the community mobilization in epidemic communities. A total of 529 qualified personnel and 51 excellent personnel of breeding site elimination were qualified in “Breeding site elimination mentoring project.” Furthermore, the Breteau index levels of all epidemic communities were lower than those during the implementation of “Breeding site elimination project” and achieved the goal of the project to lower the density of dengue vector mosquitoes. We hope that the skillful personnel could become the key persons and mentors in dengue vector controls and strengthen the breeding site elimination in Tainan City. The experiences of vector control can be inherited and rooted in local governments.

Keywords: Dengue fever, Breeding site elimination, Community mobilization, Tainan City

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week 27–28 (Jul. 2 – Jul. 15, 2017)

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

Case diagnosis year		Week 27★		Week 1-28				
Classification	Disease Diagnosed	2017	2016	2017		2016		
				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	1	1	18	0	18	0	
	Acute Viral Hepatitis type A	3	30	293	29	533	46	
	Amoebiasis	5	8	185	103	152	74	
	Anthrax	0	0	0	0	0	0	
	Chikungunya Fever	1	0	7	7	7	7	
	Cholera	0	0	0	0	0	0	
	Dengue Fever	7	6	121	121	580	144	
	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	1	0	3	0	
	Malaria	1	0	3	3	6	6	
	Measles	0	1	5	5	6	4	
	Meningococcal Meningitis	0	0	6	0	2	0	
	Paratyphoid Fever	0	0	3	3	3	1	
	Poliomyelitis	0	0	0	0	0	0	
	Rubella	0	0	1	1	4	3	
	Shigellosis	1	6	99	36	113	53	
	Typhoid fever	0	0	11	10	2	1	
West Nile Fever	0	0	0	0	0	0		
Category III	Acute Viral Hepatitis type B	8	2	86	3	49	1	
	Acute Viral Hepatitis type C	8	5	146	1	110	2	
	Acute Viral Hepatitis type D	0	0	1	0	1	0	
	Acute Viral Hepatitis type E	1	0	10	2	10	4	
	Acute Viral Hepatitis untype	0	0	0	0	0	0	
	Congenital Rubella Syndrome	0	0	0	0	0	0	
	Enteroviruses Infection with Severe Complications	0	2	4	0	13	0	
	Haemophilus Influenza type b Infection	0	0	2	0	7	0	
	Japanese Encephalitis	5	3	12	0	9	0	
	Legionellosis	8	4	86	9	59	1	
	Mumps	7	14	346	4	303	4	
	Neonatal Tetanus	0	0	0	0	0	0	
	Pertussis	0	0	17	0	8	0	
	Tetanus	0	1	6	0	6	0	
	Category IV	Botulism	0	0	0	0	3	0
		Brucellosis	0	0	0	0	0	0
Complicated Influenza		124	2	739	4	1842	2	
Complicated Varicella		1	0	12	1	20	0	
Endemic Typhus Fever		2	1	23	1	10	0	
Herpesvirus B Infection		0	0	0	0	0	0	
Invasive Pneumococcal Disease		7	7	266	2	345	0	
Leptospirosis		3	1	38	1	32	2	
Lyme Disease		0	0	0	0	0	0	
Melioidosis		0	1	9	0	8	1	
Q Fever		1	0	10	0	26	3	
Scrub Typhus		13	17	194	1	242	2	
Toxoplasmosis		0	0	8	0	5	0	
Tularremia		0	0	0	0	0	0	
Category V	Ebola Virus Disease	0	0	0	0	0	0	
	Marburg Hemorrhagic Fever	0	0	0	0	0	0	
	Novel Influenza A Virus Infections	0	0	1	1	0	0	
	Lassa Fever	0	0	0	0	0	0	
	Rift Valley Fever	0	0	0	0	0	0	
	Middle East Respiratory Syndrome Coronavirus	0	0	0	0	0	0	
	Yellow Fever	0	0	0	0	0	0	
Zika Virus Infection	0	0	1	1	3	3		

1. ★The weekly and cumulative total numbers include indigenous and imported cases of notifiable infectious diseases.
2. The following 8 chronic diseases are excluded from the table: MDR-TB, Tuberculosis, Syphilis, Gonorrhoea, HIV Infection, AIDS, Hansen Disease and Creutzfeldt-Jakob Disease.
3. Numbers of mumps and tetanus cases are summed up by the week of report.
4. Since 2016/1/22, "Zika Virus Infection" was listed as a Notifiable Infectious Disease.

Suspected Clusters

- Forty clusters were reported, including 10 tuberculosis clusters, 1 diarrhea clusters, 9 upper respiratory tract infection clusters, 17 influenza-like illness clusters, 2 fever of unknown origin cluster and 1 enterovirus clusters.

Imported Infectious Diseases

- 19 confirmed cases were imported from 6 countries during Week 27 of 2017.

Country Disease	Indonesia	Vietnam	Philippines	China	Laos	Italian	Nigeria	Thailand	Malaysia	Total
	Amoebiasis	5	1	1						
DF	1	2	1		1			1	1	7
Legionellosis				1		1				2
Scrub Typhus				1						1
Chikungunya Fever			1							1
Malaria							1			1
Total	6	3	3	2	1	1	1	1	1	19

- A total of 345 confirmed cases were imported from 25 countries in 2017.
- Top 3 imported diseases : Dengue fever (121), Amoebiasis (103), Shigellosis (36).
- Top 3 countries responsible for most imported cases : Indonesia (137), Philippines (39), Vietnam (38).

Summary of Epidemic

- **Influenza** : Mild influenza outbreaks has reached its peak and some cases are expected to develop severe symptoms. According to past epidemics, incidences of severe case will decrease after mild influenza outbreak appears to be ebbing.
- **Scrub Typhus** : The scrub typhus epidemic season has begun. The newly reported cases are primarily from Taitung County and Kinmen County.
- **Japanese Encephalitis** : The Japanese encephalitis epidemic season has begun. Although the endemic areas are primarily central and southern Taiwan, sporadic cases are expected to occur in the other cities and counties.
- **Enterovirus** : Currently, mild enterovirus activity has been increasing continuously. The number of severe cases may increase. EV71 is still circulating in the community.
- **Dengue Fever** : Epidemics in Southeast Asia are increasing gradually. As the rain has continued to occur across Taiwan, the risk of imported and indigenous epidemics is elevated.

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

Case diagnosis year		Week 28★		Week 1-28			
Classification	Disease Diagnosed	2017	2016	2017		2016	
				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	2	0	20	0	18	0
	Acute Viral Hepatitis type A	7	42	300	31	575	50
	Amoebiasis	7	3	192	104	155	74
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	0	0	7	7	7	7
	Cholera	0	0	0	0	0	0
	Dengue Fever	9	8	130	130	588	152
	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	1	0	3	0
	Malaria	0	0	3	3	6	6
	Measles	0	0	5	5	6	4
	Meningococcal Meningitis	0	0	6	0	2	0
	Paratyphoid Fever	0	1	3	3	4	1
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	1	1	4	3
	Shigellosis	2	2	101	36	115	53
	Typhoid fever	0	0	11	10	2	1
West Nile Fever	0	0	0	0	0	0	
Category III	Acute Viral Hepatitis type B	5	4	91	3	53	1
	Acute Viral Hepatitis type C	6	8	151	1	118	2
	Acute Viral Hepatitis type D	0	0	1	0	1	0
	Acute Viral Hepatitis type E	1	0	11	3	10	4
	Acute Viral Hepatitis untype	0	0	0	0	0	0
	Congenital Rubella Syndrome	0	0	0	0	0	0
	Enteroviruses Infection with Severe Complications	1	0	5	0	13	0
	Haemophilus Influenza type b Infection	0	0	2	0	7	0
	Japanese Encephalitis	2	1	14	0	10	0
	Legionellosis	1	0	87	9	59	1
	Mumps	18	12	364	5	315	4
	Neonatal Tetanus	0	0	0	0	0	0
	Pertussis	1	0	18	0	8	0
	Tetanus	0	0	6	0	6	0
Category IV	Botulism	0	0	0	0	3	0
	Brucellosis	0	0	0	0	0	0
	Complicated Influenza	106	2	845	4	1844	2
	Complicated Varicella	0	4	12	1	24	0
	Endemic Typhus Fever	1	0	24	1	10	0
	Herpesvirus B Infection	0	0	0	0	0	0
	Invasive Pneumococcal Disease	8	9	274	2	354	0
	Leptospirosis	2	3	40	1	35	2
	Lyme Disease	0	0	0	0	0	0
	Melioidosis	2	0	11	0	8	1
	Q Fever	0	0	10	0	26	3
	Scrub Typhus	10	12	204	1	254	2
	Toxoplasmosis	0	2	8	0	7	0
	Tularemia	0	0	0	0	0	0
Category V	Ebola Virus Disease	0	0	0	0	0	0
	Marburg Hemorrhagic Fever	0	0	0	0	0	0
	Novel Influenza A Virus Infections	0	0	1	1	0	0
	Lassa Fever	0	0	0	0	0	0
	Rift Valley Fever	0	0	0	0	0	0
	Middle East Respiratory Syndrome Coronavirus	0	0	0	0	0	0
	Yellow Fever	0	0	0	0	0	0
	Zika Virus Infection	1	0	2	2	3	3

- ★The weekly and cumulative total numbers include indigenous and imported cases of notifiable infectious diseases.
- The following 8 chronic diseases are excluded from the table: MDR-TB, Tuberculosis, Syphilis, Gonorrhoea, HIV Infection, AIDS, Hansen Disease and Creutzfeldt-Jakob Disease.
- Numbers of mumps and tetanus cases are summed up by the week of report.
- Since 2016/1/22, "Zika Virus Infection" was listed as a Notifiable Infectious Disease.

Suspected Clusters

- Forty-five clusters were reported, including 8 tuberculosis clusters, 6 diarrhea clusters, 14 upper respiratory tract infection clusters, 16 influenza-like illness clusters and 1 fever of unknown origin cluster.

Imported Infectious Diseases

- 14 confirmed cases were imported from 8 countries during Week 28 of 2017.

Country Disease	Vietnam	Malaysia	Thailand	China	Myanmar	Korea	Indonesia	Philippines	Total
DF	3	2	2		1			1	9
Hepatitis A			1			1			2
Amoebiasis							1		1
Zika	1								1
Hepatitis E				1					1
Total	4	2	3	1	1	1	1	1	14

Note: The statistics listed in this table include imported cases that were either **confirmed** or **updated** in the previous week.

- A total of 360 confirmed cases were imported from 25 countries in 2017.
- Top 3 imported diseases : Dengue fever (130), Amoebiasis (104), Shigellosis (36).
- Top 3 countries responsible for most imported cases : Indonesia (138), Vietnam (42), Philippines (40).

Summary of Epidemic

- Influenza** : Mild influenza activity has reached its peak and is expected to gradually slow down. According to past epidemics, the incidence of severe cases will decrease after mild influenza activity appears to be ebbing.
- Scrub Typhus** : The scrub typhus epidemic season has begun. The newly reported cases are primarily from Taitung County and Kinmen County.
- Japanese Encephalitis** : The Japanese encephalitis epidemic season has begun. Although the endemic areas are primarily central and southern Taiwan, sporadic cases are expected to occur in the other cities and counties.
- Enterovirus** : Currently, mild enterovirus activity has remained similar to that last week. The number of severe cases may increase. EV71 is still circulating in the community.

- **Dengue Fever** : Epidemics in Southeast Asia are increasing gradually. As the rain has continued to occur across Taiwan, the risk of imported and indigenous epidemics is elevated.

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