

A Personalized Management of A Chronic Active Tuberculosis Patient, Hsinchu City

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Abstract

The main treatment regimens of chronic active tuberculosis (CATB) patients are patient-centered supportive services and effective isolation. High-dose isoniazid was once used to reduce the infectivity of CATB patients. Bedaquiline, a new second-line drug for multiple drug-resistant tuberculosis patients, was introduced in 2014 as a choice for treating CATB patients in Taiwan. Our patient, diagnosed as CATB in 2010, started to receive bedaquiline since 2015, and completed the treatment in 2017. During this period, he had changed his attitude and cooperated well with public health and medical staffs. Public health staffs implemented a patient-centered, formulated a personalized management plan, kept close contact with medical staffs, and updated with his latest medical conditions. The good trusting relationship facilitated the completion of treatment.

Keywords: Chronic active TB cases, personalized care management

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DOI: 10.6525/TEB.201910_35(19).0001

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Received: Apr. 12, 2018

Accepted: Apr. 30, 2018

Tuberculosis Outbreak Investigation at A Senior High School in Central Taiwan, 2017

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Abstract

Two tuberculosis (TB) students at the same senior high school in central Taiwan were confirmed in April and July 2017, respectively (case 1 and case 2). One contact was also diagnosed as TB case later (case 3). In contacts investigation of case 1 and case 2, the interferon-gamma release assay (IGRA) positive rates were 43.7% and 4.9%, respectively. Except one refused treatment, all other IGRA positive contacts received latent tuberculosis infection (LTBI) treatment.

A further investigation found that case 2 was epidemiologically related to case 1, but case 2 was not defined as a contact of case 1 initially. We recommended that the TB outbreak investigation in school should be done from more aspects.

Case 1 and case 2 were highly contagious when being diagnosed, indicating that they might have delayed medical treatment and diagnosis. Thus we recommended that schools regularly carry out TB prevention and education activities. Schools should also conduct ventilation assessment regularly to reduce the risk of TB transmission among teachers and students. We also recommended strengthening education and awareness of TB among clinic doctors.

Keywords: School campus, tuberculosis, outbreak

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DOI: 10.6525/TEB.201910_35(19).0002

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Received: Aug. 16, 2018

Accepted: Sep. 14, 2018

week 38–39 (Sep. 15–Sep. 28, 2019)

DOI: 10.6525/TEB.201910_35(19).0003

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

Case diagnosis year		Week38★		Week 1–38			
Classification	Disease Diagnosed	2019	2018	2018		2017	
				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	46	0	53	0
	Acute Viral Hepatitis type A	1	1	70	18	69	28
	Amoebiasis	4	13	242	125	234	117
	Anthrax	0	0	0	0	0	0
	Chikungunya Fever	10	0	85	68	4	4
	Cholera	0	0	0	0	6	0
	Dengue Fever	11	28	485	400	334	205
	Diphtheria	0	0	0	0	0	0
	Enterohemorrhagic E. coli Infection	0	0	1	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	1	0
	Malaria	1	0	4	4	3	3
	Measles	0	0	128	50	35	9
	Meningococcal Meningitis	0	0	4	0	5	1
	Paratyphoid Fever	1	0	6	5	6	5
	Poliomyelitis	0	0	0	0	0	0
	Rubella	0	0	21	17	9	8
	Shigellosis	4	5	101	34	121	40
Typhoid fever	0	1	21	17	13	10	
West Nile Fever	0	0	0	0	0	0	
Category III	Acute Viral Hepatitis type B	0	0	3	3	1	1
	Acute Viral Hepatitis type C	2	5	79	1	103	8
	Acute Viral Hepatitis type D	11	7	442	2	339	3
	Acute Viral Hepatitis type E	0	0	0	0	0	0
	Congenital Syphilis	0	0	8	3	6	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	3	1	39	1	33	0
	Japanese Encephalitis	0	0	1	0	5	0
	Legionellosis	0	0	20	0	35	0
	Mumps	7	7	196	12	147	4
	Neonatal Tetanus	15	15	437	6	438	7
	Pertussis	0	0	0	0	0	0
Tetanus	1	2	24	0	25	2	
Category IV	Botulism	1	0	2	0	5	0
	Brucellosis	0	0	0	0	0	0
	Complicated Varicella	0	0	0	0	0	0
	Endemic Typhus Fever	2	0	48	1	39	0
	Herpesvirus B Infection	3	0	20	2	20	1
	Invasive Pneumococcal Disease	0	0	0	0	0	0
	Leptospirosis	4	8	314	2	359	0
	Listeriosis	7	5	75	0	50	0
	Lyme Disease	6	2	140	1	124	1
	Melioidosis	0	0	1	1	1	1
	Q Fever	3	0	34	0	18	1
	Scrub Typhus	1	0	17	4	12	1
	Severe Complicated Influenza	21	3	349	4	264	0
Toxoplasmosis	72	24	1707	7	985	5	
Tularemia	0	0	12	2	12	1	
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 Coronavirus	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
Zika virus infection	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 38, including 7 tuberculosis clusters, 11 diarrhea clusters, 15 upper respiratory tract infection clusters, 16 influenza-like illness clusters, 2 fever of unknown origin clusters, and 1 enterovirus cluster.

Imported Infectious Diseases

- There were 20 imported cases from 8 countries during week 38 of 2019.

Diseases	Countries								Total
	Indonesia	Vietnam	Myanmar	Cambodia	Austria	Congo	Nepal	Japan	
Dengue Fever		4	2	3			1		10
Shigellosis	2								2
Chikungunya Fever			2						2
Amoebiasis	2								2
Q Fever								1	1
Severe Complicated Influenza					1				1
Malaria						1			1
Paratyphoid Fever	1								1
Total	5	4	4	3	1	1	1	1	20

Note: The table summarized the number of imported cases that were either **confirmed** or **updated** in the given week.

- There are 784 imported cases from 36 different countries in 2019. The top 3 countries are Indonesia (219), Vietnam (116), and the Philippines (97).
- Top 3 imported diseases are Dengue Fever (400), Amoebiasis (125), and Chikungunya Fever (68).

Summary of Epidemic

- **Enterovirus** : The epidemic is in the peak period. EV71 is still circulating in the community.
- **Influenza** : The influenza activity increases slowly. Influenza A/H1N1 is the predominant virus in the community.
- **Dengue and Chikungunya** : New Chikungunya cases are expected to occur in the alert area in Zhonghe District, New Taipei City. There have been sporadic indigenous dengue cases in Southern Taiwan; therefore the risk of epidemic still exists in Taiwan.

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Chikungunya Fever			2						2
Amoebiasis	2								2
Q Fever								1	1
Severe Complicated Influenza					1				1
Malaria						1			1
Paratyphoid Fever	1								1
Total	5	4	4	3	1	1	1	1	20

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The Taiwan Epidemiology Bulletin series of publications is published by Centers for Disease Control, Ministry of Health and Welfare, Taiwan (R.O.C.) since Dec. 15, 1984.

Publisher: Jih-Haw Chou

Editor-in-Chief: Yung-Ching Lin

Executive Editor: Hsueh-Ju Chen, Hsin-Lun Lee

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