

Infections in Immunocompromized Patients from Neighboring Countries “Focus on HIV-Infected Patients”

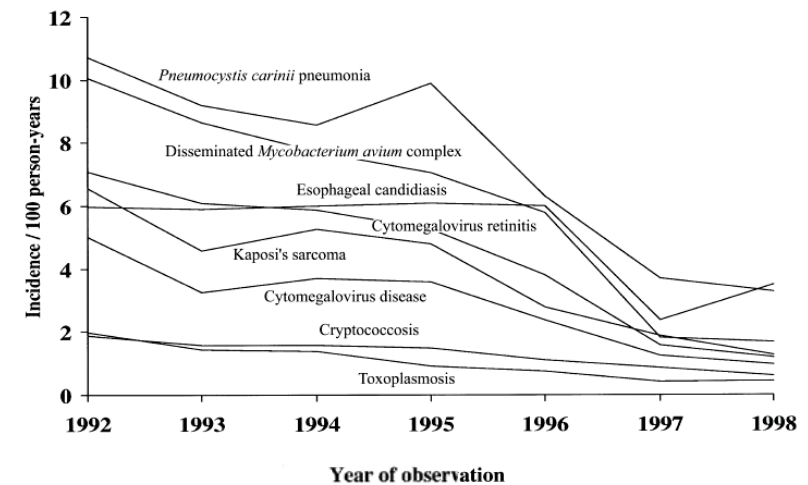
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การประเมินโรคจากการประจําปี ครั้งที่ 41 - สมทบองค์ความรู้เพื่อพัฒนาสุขภาพ
www.kku.ac.th, 25 กุมพ 2558 - 25 ธันวาค 2558 ณ โรงแรมอิมพีเรียล ภูเก็ต (The Imperial Hotel Phuket)

Epidemiology of HIV–Associated Opportunistic Infections in the United States



Clin Infect Dis 2000;30:55–14

Geographic Opportunistic Infections

Diseases	Geographic distribution
Coccidioidomycosis	San Joaquin Valley in California, Arizona, southern regions of Utah, Nevada, New Mexico, western Texas
Penicilliosis	Southeast Asia, southern China
Leishmaniasis	Mediterranean region, southern Asia, Africa, South America

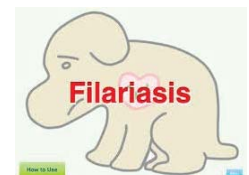


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Endemic Tropical Infection

Typhoid Fever



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Top 5 Common OIs in Thai HIV-Infected Patients

National data

- Tuberculosis (30%)
- PCP (20%)
- Cryptococcosis (13%)
- Esophageal candidiasis (5%)
- Recurrent pneumonia (3%)

A tertiary care center, Bangkok

- Tuberculosis (58%)
- PCP (18%)
- Cryptococcosis (8%)
- CMV retinitis (4%)
- MAC infection (2%)

P. marneffei infection: common in the northern Thailand



การประมวณการเฝ้าระวังโรคติดต่อ 41 - บทบาทของศูนย์เฝ้าระวังโรคติดต่อ

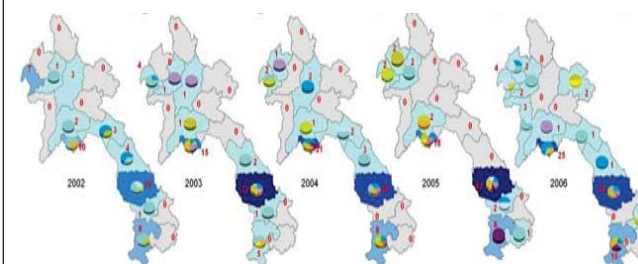
Bureau of Epidemiology, Department of Disease Control Ministry of Public Health, J Infect 2007; 55: 464-9.

Common HIV-related OIs in ASEAN countries

OIs	Countries			
	Cambodia ¹	Malaysia ²	Philippine ³	Singapore ⁴
TB	43	45	53	23
PCP	10	12	32	36
Cryptococcosis	12	3	4	4
CMV	-	3	6	8
Eso. candidiasis	39	7	3	7
Toxoplasmosis	-	9	2	3
Cryptosporidiosis	13	-	-	1
MAC	2	-	-	5
	Isosporiasis, histoplasmosis, salmonellosis	Penicilliosis, histoplasmosis		PML, histoplasmosis

1. SOUTHEAST ASIAN J TROP MED PUBLIC HEALTH 2007; 38: 62-8; 2. SOUTHEAST ASIAN J TROP MED PUBLIC HEALTH 2004; 35 (S2): 26-32;
3. Salvana EM, et al. Abstract in ID Week 2012.; 4. BMC Infectious Diseases 2004, 4:47

HIV-related OIs in Lao PDR



HIV Related Opportunistic Infections:

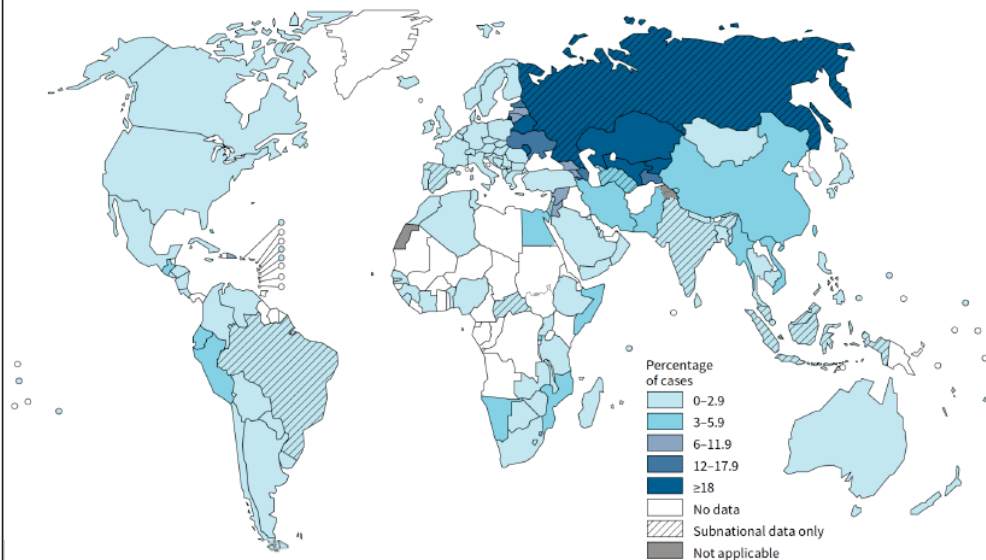


- Tuberculosis
- Pneumonia
- Persistent Diarrhea
- Diarrhoea + Septicemia
- Diarrhoea + Pneumonia
- Cryptococcal Meningitis
- Chronic Fevers
- PCP
- Penicilliosis
- Cancer
- Gastro Intestinal Bleeding
- Infectious Cardiac
- Toxoplasmosis
- Other HIV Related Nines



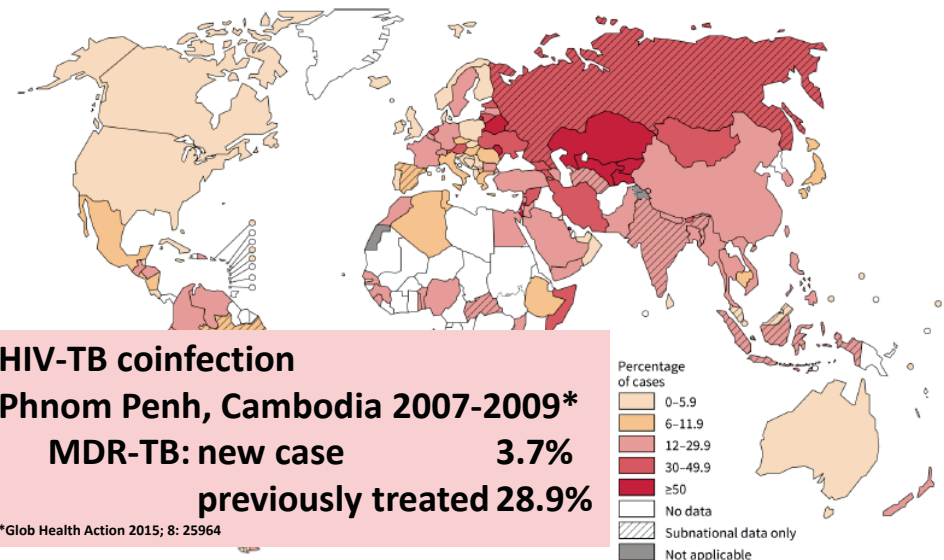
UNESCO Bangkok 2007

Percentage of new TB cases with MDR-TB



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement. © WHO 2014. All rights reserved

Percentage of previously treated TB cases with MDR-TB



HIV-TB coinfection

Phnom Penh, Cambodia 2007-2009*

MDR-TB: new case

3.7%

previously treated 28.9%

*Glob Health Action 2015; 8: 25964

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Nontuberculous Mycobacterial Disease in Patients with HIV in Cambodia, Thailand, and Vietnam

Prevalence of NTM disease = 2% (19 of 1,060)

	NTM Pulmonary Disease (N = 9)	NTM Disseminated Disease (N = 10)
Microbiology		
≥1 Positive sputum smear, n (%)	0	2 (20)
NTM species		
<i>Mycobacterium abscessus</i>	1	1
<i>Mycobacterium kansasii</i>	6	0
<i>Mycobacterium fortuitum</i>	0	1
<i>Mycobacterium avium</i>	0	2
<i>Mycobacterium intracellulare</i>	0	1
<i>Mycobacterium simiae</i>	0	1
<i>Mycobacterium fortuitum/ peregrium</i>	0	0
<i>Mycobacterium chelonae/abscessus</i>	0	0
<i>Mycobacterium szulgai</i>	0	0
<i>Mycobacterium scrofulaceum</i>	0	0
<i>Mycobacterium lentiflavum</i>	0	0
<i>Mycobacterium gordonae</i>	0	0
<i>Mycobacterium interjectum</i>	0	0
<i>Mycobacterium asiaticum</i>	0	0
<i>Mycobacterium haemophilum</i>	0	0
Mixed (2 NTM species)	2	1
Unidentified	0	3

Bacterial infection: Problem of drug resistance

• Bacteremia in Cambodia, 2007-2010

- 4,833 adults; Community-acquired 86%
- ESBL-producing *E. coli* (48%); *Klebsiella* spp. (44), *Enterobacter* spp. (46%)
- *Salmonella*

	<i>S. Typhi</i>	<i>S. Choleraesuis</i>
-Multi-drug resistant	75%	92%
-Nalidixic acid resistant	90%	33%
-Azithromycin resistant	5%	71%

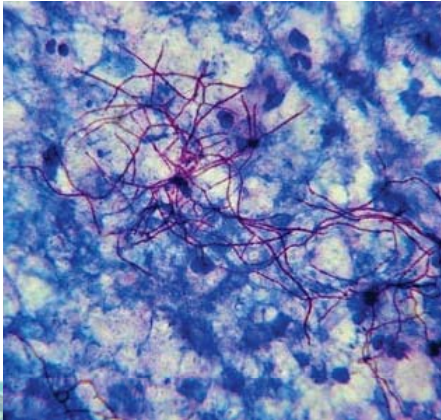


การประเมินผลกระทบจากการใช้ยาปฏิชีวนะในผู้ป่วยที่มีเชื้อแบคทีเรีย

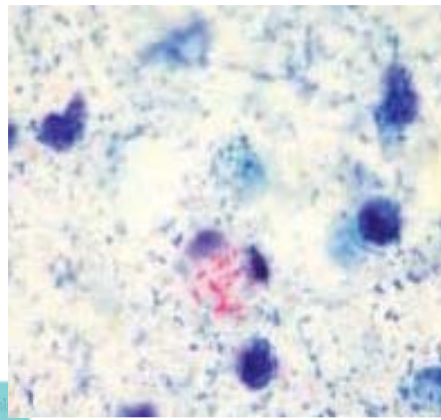
PLOS ONE 2013; 8: e59775; PLOS Neglect Trop Dis 2012; 6: e1933.

Opportunistic infections

Nocardiosis

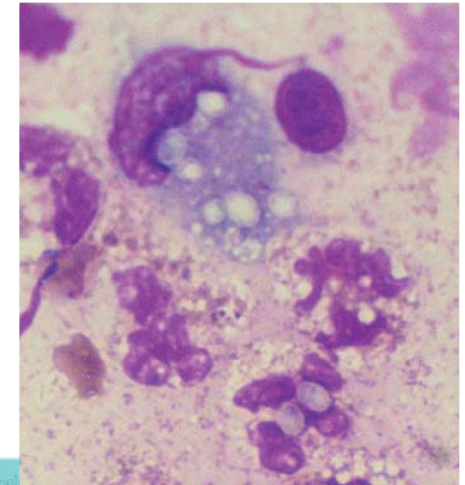


Rhodococcosis



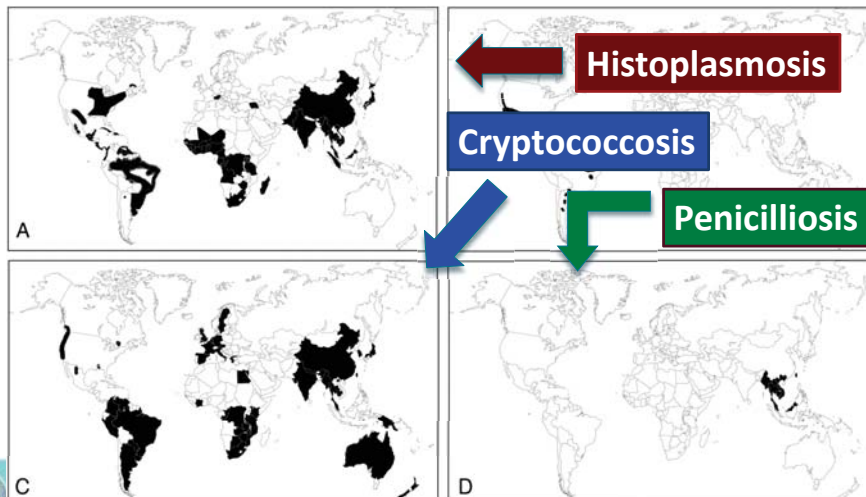
A 43-yr-old female, Loa

- Prolonged fever for 1 mo
- Right cervical lymphadenopathy
- Oral thrush +ve
- Hepatosplenomegaly
- Lab:
 - Anti-HIV positive
 - Anemia
 - Cholestatic hepatitis
 - CXR: normal

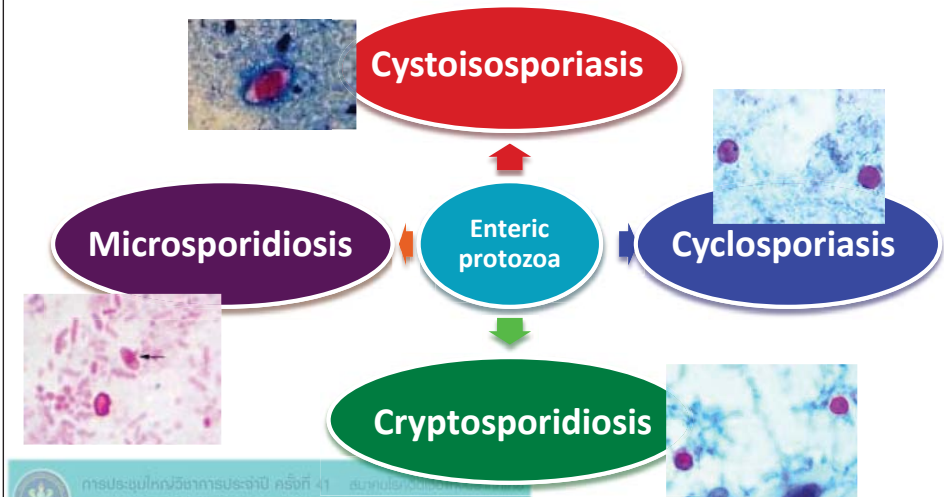


Major invasive fungal infection in HIV-infected patients

Pneumocystosis

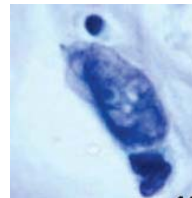
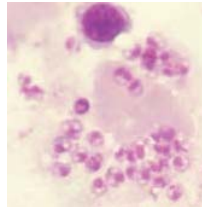
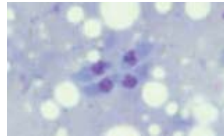


Opportunistic enteric protozoa in HIV-infected patients



Nonenteric protozoa in HIV-infected patients

- Toxoplasmosis
- Leishmaniasis??
 - Southern Thailand:
 - *Leishmania siamensis*
 - Potential vector: *Sergentomyia gemmea*
 - Western Malaysia: presence of sandfly
- *Acanthamoeba* infection
 - Skin infection, rhinosinusitis, encephalitis



BMC Microbiol 2013; 13: 60; BMC Infectious 2013; 13: 333; J Neuroimaging 2015; 25: 1047-9; J Clin Microbiol 2012; 50: 1128-31; Laryngoscope 2002; 112: 1201-3.

Malaria and HIV

- ↑ Parasitemia; Higher density of parasitemia
- ↑ Clinical malaria
- ↑ Risk of severe malaria in nonimmune patient
- ↑ Risk of Rx failure

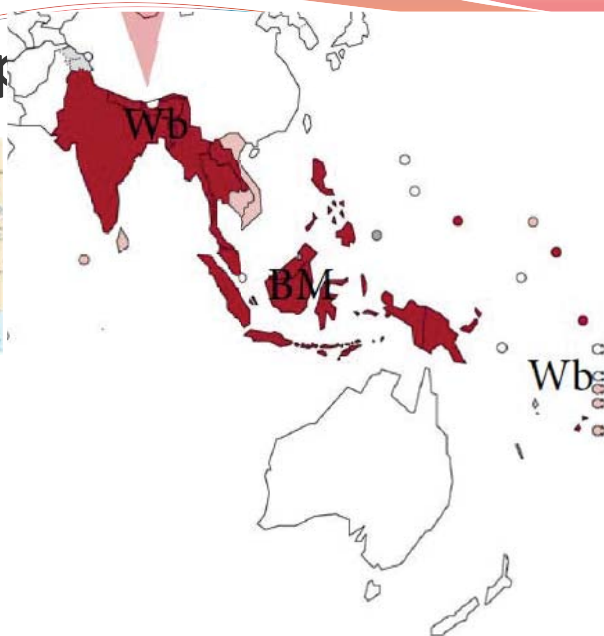
Malaria
↔
HIV

- ↑ HIV viral load
- ↑ MTCT of HIV



การประเมินผลกระทบการประจําปี ครั้งที่ 41 - สมทบทวนด้วยวิธีทางประจําปี
www.bmc.com, 2013-2014 - 2015-2016 - 2017-2018 - 2019-2020 - 2021-2022 - 2023-2024 - 2025-2026 - 2027-2028 - 2029-2030 - 2031-2032 - 2033-2034 - 2035-2036 - 2037-2038 - 2039-2040 - 2041-2042 - 2043-2044 - 2045-2046 - 2047-2048 - 2049-2050 - 2051-2052 - 2053-2054 - 2055-2056 - 2057-2058 - 2059-2060 - 2061-2062 - 2063-2064 - 2065-2066 - 2067-2068 - 2069-2070 - 2071-2072 - 2073-2074 - 2075-2076 - 2077-2078 - 2079-2080 - 2081-2082 - 2083-2084 - 2085-2086 - 2087-2088 - 2089-2090 - 2091-2092 - 2093-2094 - 2095-2096 - 2097-2098 - 2099-2100 - 2101-2102 - 2103-2104 - 2105-2106 - 2107-2108 - 2109-2110 - 2111-2112 - 2113-2114 - 2115-2116 - 2117-2118 - 2119-2120 - 2121-2122 - 2123-2124 - 2125-2126 - 2127-2128 - 2129-2130 - 2131-2132 - 2133-2134 - 2135-2136 - 2137-2138 - 2139-2140 - 2141-2142 - 2143-2144 - 2145-2146 - 2147-2148 - 2149-2150 - 2151-2152 - 2153-2154 - 2155-2156 - 2157-2158 - 2159-2160 - 2161-2162 - 2163-2164 - 2165-2166 - 2167-2168 - 2169-2170 - 2171-2172 - 2173-2174 - 2175-2176 - 2177-2178 - 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Lymph



ISRN Tropical Medicine 2013

2 villages of Mae Chan sub-district, Umphang district, Tak province at Thai-Myanmar border, Thailand

Table 1 Prevalence of bancroftian filariasis in the study areas

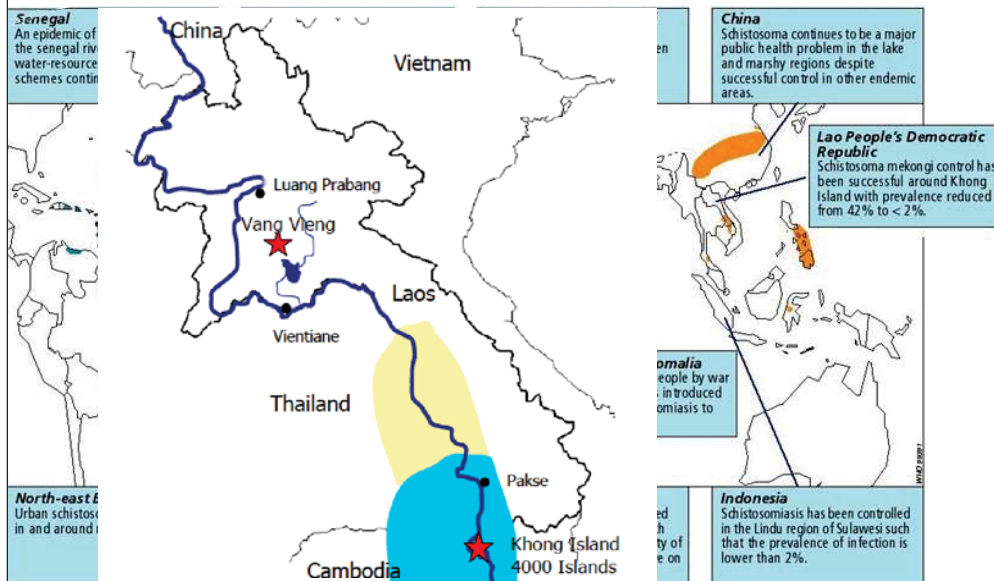
Test	No. examined	No. positive (%)
Microscopic examination for microfilariae	433	24 (6)
<i>W. bancrofti</i> Og4C3 ELISA	265	58 (22)
ELISA for anti-filarial IgG4 antibodies	178	96 (54)



การประยอกการวิชาการประจำปี ครั้งที่ 41 - สมทบด้วยมติของแพทยสภาไทย

ASIAN PACIFIC JOURNAL OF ALLERGY AND IMMUNOLOGY (2003) 21: 179-188

Global distribution of Schistosomiasis



WHO; Emerg Infect Dis 2009; 15: 1823-6.

Viral infection in HIV-infected patients

- CMV
- JC virus
- Herpes: Herpes simplex, Varicellar-zoster
- Herpes simplex 8
- Viral hepatitis
- EBV



การประยอกการวิชาการประจำปี ครั้งที่ 41 - สมทบด้วยมติของแพทยสภาไทย

Summary

- The most frequent causes of AIDS-defining illnesses in ASEAN countries are similar to those reported in the Thailand.
- Awareness of some emerging and problematic pathogens is necessary when caring patients from neighboring countries



การประชุมวิชาการประจำปี ครั้งที่ 41 - สมาคมโรคติดต่อแห่งประเทศไทย
ระหว่างวันที่ 22-24 กรกฎาคม 2558 ณ โรงแรมรอยัลริมน้ำ กรุงเทพมหานคร

Thank You

