

Disease frequency among inpatients at a tertiary general hospital in Lao PDR

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ABSTRACT

In Lao People's Democratic Republic (Lao PDR), reports on disease frequency are very limited. This study aimed to report frequencies of the main cause of admission among inpatients of a tertiary general hospital (Mittaphab Hospital) in Vientiane. Subjects were inpatients who were admitted from January 3 to February 2 in 2017. The dataset were made as a pilot run to establish hospital statistics. The data on sex, age, address (province), dates of admission and discharge, and main diagnosis were collected from paper-based medical charts. International Classification of Diseases 10 was applied for classifying the main diagnosis. During the 1-month period, 1,201 inpatients (637 males and 564 females) were admitted, including 171 (14.2%) aged <20 years and 254 (21.1%) aged ≥60 years. About 20% patients were from outside of Vientiane. Among them, 67.5% (62.5% in males and 73.8% in females) were admitted within 7 days. The main causes with more than 10% in males were injury and poisoning S00-T98 (49.8%), while those in females were injury and poisoning S00-T98 (25.2%), pregnancy and childbirth O00-O99 (19.0%), and diseases of genitourinary system N00-N99 (13.7%). Injury and poisoning S00-T98 among inpatients aged <20 years was 81.8% in males and 59.0% in females. Among those aged 20–59 years, it was 49.9% and 22.4%, and among those aged ≥60 years it was 22.3% and 16.9%, respectively. This is the first report on the frequencies of main diseases among inpatients in Lao PDR. Injury was the first main cause of admission at the tertiary hospital.

Keywords: main admission cause, disease frequency, inpatients, Lao PDR

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INTRODUCTION

Disease frequencies at medical facilities are one of the essential information not only for hospital management but also for national plan of government. In many countries, the frequencies are summarized at each facility, reported to a local government, and sent to the central government.¹ Diseases are usually classified with the WHO International Statistical Classification of Diseases and Related Health Problems (ICD).² The classification is based on the detailed findings

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derived from high technology, which is available only in developed countries. Since the detailed classification is not feasible in developing countries, it is better to simplify the classification in such countries based on the available disease frequency.

Lao People's Democratic Republic (Lao PDR) is a landlocked country with a population of 6.9 million in 18 provinces including Vientiane Capital.³ Although University of Health Science in Vientiane Capital has been supplying the country with medical professionals, the number of medical personnel was insufficient with 41 doctors per 100,000 population according to government reports of 2015. In addition, the difference in the distribution of medical professionals between urban and rural is large.^{4,5} Further, medical equipment in rural hospitals is not enough modernized to allow accurate diagnosis. Therefore, the estimation of nation-wide disease frequency is very difficult in Lao PDR.

Previous studies have reported the frequency of specific disease mortality in Lao PDR. Lua et al identified 448 cancer deaths from 757 local health centers in 17 provinces/cities.⁶ Loo et al reported that stroke was the third leading cause of death in Lao PDR based on the World Health Organisation's Ranking (<http://www.worldlifeexpectancy.com/laos-coronary-heart-disease>).⁷ Our team analyzed the underlying cause of death at a tertiary hospital, which was the first report in literature covering all the deaths at a facility in Lao PDR.⁸

The current study reports the relative frequency of main causes of admission at the tertiary hospital (Mittaphab Hospital) in Vientiane Capital. The data was recorded as a pilot dataset to establish hospital statistics on disease frequency.

MATERIALS AND METHODS

Characteristics of Mittaphab Hospital

As described in our previous paper,⁸ Mittaphab Hospital established in 1988. It is one of the five general tertiary/secondary hospitals located in Vientiane Capital. It is a governmental teaching hospital with 300 beds for inpatient services including an emergency room, which prioritizes orthopedics, neurology, and hemodialysis cases. The hemodialysis machine was introduced in 1990, and about 13 machines were functional as of April, 2019. The medical staff consisted of 158 medical doctors, 284 nurses, and 22 midwives as of 2019. The hospital had 13 operation rooms, one computer tomography (CT) unit introduced in 2006, and one magnetic resonance imaging (MRI) unit was introduced in 2015. Department of obstetrics and gynecology had 28 beds and recorded 1,368 childbirths in 2018. Since a tertiary children hospital is located beside Mittaphab Hospital, severe pediatric cases are referred to the children's hospital. HIV-positive cases and sputum positive tuberculosis are also transferred to the other specialized hospitals.

Subjects

Subjects were 1,201 inpatients (637 males and 564 females) who admitted to Mittaphab Hospital during January 3 to February 2 in 2017. The data on sex, age, address (only province name), dates of admission and discharge, and main diagnosis were collected from paper-based medical charts by two medical record staff under the supervision of the chief with a license of medical doctor.

Classification of diseases

Disease was classified based on ICD-10. Injuries were categorized in the order of head injury, bone fracture, and the other injury. When two or more diseases were described, more severe disease was counted as the main cause of admission. For example, hypertension, diabetes mel-

litus (DM), and heart failure were not counted as the main cause of admission when cerebral hemorrhage/infarction, myocardial infarction, liver cirrhosis, chronic kidney disease (CKD), or diarrhea was described. Among those with DM and hypertension, DM was selected as the main cause. Urinary tract infection, liver cirrhosis, and anemia were counted for those with the respective disease and gastritis. Pneumonia was counted for cases with pneumonia and diarrhea. Pulmonary edema and peptic ulcer were not counted as the main cause among the cases with chronic renal failure. Injury, infectious disease, and malignant neoplasm were counted even when the other diseases/conditions were described. One case with atrial fibrillation, seizure and epidural hematoma was classified into head injury as the main cause of admission, although atrial fibrillation might be serious in this case. The recording of complications was not instructed to the staff, therefore, mild complications were not collected. Based on this process, the main causes of admission were classified into 123 categories excluding unreadable diagnoses.

Statistical analysis

The data was input into EXCEL file, and cleaned with ACCESS. Confidence intervals (CI) of percentages were calculated based on a binomial distribution. The proportions were tested by a two-sided Fisher's exact test. The calculations were conducted using STATA version 11.0 (Stata Corp. College Station, TX, USA).

Ethical issues

The anonymous data was collected as a pilot dataset to establish hospital statistics on disease frequency. This report was derived from an internal document for hospital management use. The director of the hospital permitted to report the disease frequency to an academic journal.

RESULTS

The inpatients during the one month were 1,201 (637 males and 564 females). As shown in Table 1, 171 (14.2%) subjects were children aged <20 years, and 254 (21.1%) were those aged ≥60 years. Among 1,201 inpatients, 954 (79.4%) resided in Vientiane Capital and Vientiane Province. The length of stay was within 7 days for 67.5% (62.5% in males and 73.8% in females).

Table 2 shows the main diseases classified by ICD-10. Injury and poisoning were the most frequent causes among both males (49.8%, 95% CI 45.8–53.7%) and females (25.2%, 95% CI 21.6–29.0%). Except pregnancy and childbirth, the difference in the relative frequency between males and females was significant for diseases of respiratory system J00-J99 ($p=0.012$), diseases of genitourinary system N00-N99 ($p=0.010$), CKD N18 ($p=0.046$), injury and poisoning S00-T98 ($p<0.001$), head injury S00-S09 ($p<0.001$), and bone fracture ($p<0.001$). Among malignant neoplasms, leukemia was the most common (8 cases), followed by liver cancer and brain tumor. Cerebral infarction (32 cases) was more frequent than cerebral hemorrhage (21 cases), although 13 cases were described as stroke. CKD with and without hemodialysis treatment were 112 (9.3%, 95% CI 7.7–11.1%).

ICD A00-B99 are mainly used when pathogens are diagnosed. Possible infectious diseases are classified based on anatomic site of infection/inflammation. Table 3 demonstrates the frequency of infectious diseases as well as possible infectious diseases classified other than A00-B99. The total was 162 (13.5% out of 1,201, 95% CI 11.6–15.6%); 13.0% out of 637 (95% CI 10.5–15.9%) in males and 14.0% out of 564 (95% CI 11.2–17.1%) in females. Among these, appendicitis (25.9% out of 162 cases) was the most frequent, followed by pneumonia (13.6% out of 162 cases).

Table 4 shows main disease of admission according to age group. Among those aged <20 years,

Table 1 Characteristics of inpatients in Mittaphab Hospital admitted from January 3 to February 2, 2017

Characteristics	Males		Females		Total	
	N	(%)	N	(%)	N	(%)
Total	637	(100)	564	(100)	1,201	(100)
Age at admission						
0–9	30	(4.7)	23	(4.1)	53	(4.4)
10–19	80	(12.6)	38	(6.7)	118	(9.8)
20–29	136	(21.4)	169	(30.0)	305	(25.4)
30–39	89	(14.0)	87	(15.4)	176	(14.7)
40–49	76	(11.9)	58	(10.3)	134	(11.2)
50–59	96	(15.1)	65	(11.5)	161	(13.4)
60–69	61	(9.6)	58	(10.3)	119	(9.9)
70–79	51	(8.0)	39	(6.9)	90	(7.5)
80–	18	(2.8)	27	(4.8)	45	(3.7)
Residency						
Vientiane*	480	(75.4)	474	(84.0)	954	(79.4)
The others	157	(24.6)	90	(16.0)	247	(20.6)
Admission (days)						
≤2	69	(10.8)	106	(18.8)	175	(14.6)
3–7	326	(51.2)	310	(55.0)	636	(53.0)
8–14	216	(33.9)	127	(22.5)	343	(28.6)
15–33	26	(4.1)	21	(3.7)	47	(3.9)

* Vientiane Capital and Province

injury and poisoning was 81.8% (95% CI 57.7–78.2) in males and 59.0% (95% CI 34.7–41.3%) in females. The percentage was reduced along with age; 49.9% (95% CI 44.8–54.9%) and 22.4% (95% CI 18.3–27.0%) among those aged 20–59 years and 22.3% (95% CI 15.5–30.4%) and 16.9% (95% CI 10.8–24.7%) among those aged ≥60 years, respectively. Among males aged ≥60 years, injury and poisoning S00-T98 (22.3%, 95% CI 15.5–30.4%), diseases of circulatory system I00-I99 (19.2%, 95% CI 12.8–27.1%), diseases of genitourinary system N00-N99 (18.5%, 95% CI 12.2–26.2%), diseases of respiratory system J00-J99 (14.6%, 95% CI 9.0–21.9%), and diseases of digestive system K00-K93 (11.5%, 95% CI 6.6–18.3%) were common, while diseases of genitourinary system N00-N99 (30.6%, 95% CI 22.7–39.6%) were the most frequent among females aged ≥60 years, followed by injury and poisoning S00-T98 (16.9%, 95% CI 10.8–24.7%), diseases of circulatory system I00-I99 (16.9%, 95% CI 10.8–24.7%), and diseases of digestive system K00-K93 (10.5%, 95% CI 5.7–17.3%).

DISCUSSION

This is the first report demonstrating the disease frequency among inpatients at a tertiary hospital in Lao PDR. It demonstrated that 1) injury accounted for more than one-third, 2) possible infectious diseases accounted for 13.5%, 3) appendicitis was more frequent than pneumonia, 4) infarction was more frequent than hemorrhage among those with a cerebrovascular disease, 5) leukemia was the most frequent among malignant neoplasms, and 6) diseases of genitourinary

Table 2 Main disease among inpatients at Mittaphab Hospital admitted from January 3 to February 2, 2017

Diagnosis	ICD 10	Males		Females		Total	
		N	(%)	N	(%)	N	(%)
Infectious dis.	A00-B99	23	(3.6)	32	(5.7)	55	(4.6)
Malignant neoplasms ^{*1}	C00-C97	14	(2.2)	14	(2.5)	28	(2.3)
Other neoplasms	D00-D48	4	(0.6)	4	(0.7)	8	(0.7)
Blood dis. ^{*2}	D50-D89	5	(0.8)	4	(0.7)	9	(0.7)
Endocrine dis.	E00-E35	13	(2.0)	12	(2.1)	25	(2.1)
Diabetes mellitus	E10-E14	8	(1.3)	11	(2.0)	19	(1.6)
Gout	E79	3	(0.5)	0	(0.0)	3	(0.2)
Mental disorders	F00-F99	1	(0.2)	4	(0.7)	5	(0.4)
Nervous sys. ^{*3}	G00-G99	23	(3.6)	19	(3.4)	42	(3.5)
Eye and adnexa	H00-H59	0	(0.0)	0	(0.0)	0	(0.0)
Ear	H60-H95	0	(0.0)	1	(0.2)	1	(0.1)
Circulatory sys.	I00-I99	49	(7.7)	46	(8.2)	95	(7.9)
Ischemic heart dis. ^{*4}	I20-I25	1	(0.2)	1	(0.2)	2	(0.2)
Cerebrovascular dis. ^{*5}	I60-I69	38	(6.0)	29	(5.1)	67	(5.6)
Respiratory sys. ^a	J00-J99	34	(5.3)	14	(2.5)	48	(4.0)
Digestive sys. ^{*6}	K00-K93	60	(9.4)	44	(7.8)	104	(8.7)
Skin/cutaneous dis.	L00-L99	2	(0.3)	6	(1.1)	8	(0.7)
Musculoskeletal sys. ^{a,*7}	M00-M99	25	(3.0)	26	(4.6)	51	(4.2)
Genitourinary sys. ^a	N00-N99	57	(8.9)	77	(13.7)	134	(11.2)
Chronic kidney dis. ^a	N18	49	(7.7)	63	(11.2)	112	(9.3)
Pregnancy and birth ^{*8}	O00-O99	0	(0.0)	107	(19.0)	107	(8.9)
Perinatal period	P00-P96	0	(0.0)	0	(0.0)	0	(0.0)
Malformations	Q00-Q99	0	(0.0)	1	(0.2)	1	(0.1)
Symptoms and signs	R00-R99	4	(0.6)	2	(0.4)	6	(0.5)
Injury and poisoning ^{b,*9}	S00-T98	317	(49.8)	142	(25.2)	459	(38.2)
Head injury ^b	S00-S09	69	(10.8)	22	(3.9)	91	(7.6)
Bone fracture ^b		184	(28.9)	105	(18.6)	289	(24.1)
Unknown ^{*10}		6	(0.9)	8	(1.4)	14	(1.2)
Total		637	(100)	564	(100)	1,201	(100)

dis.: diseases, sys.: system, ^ap<0.05 and ^bp<0.001 for the difference between males and females

^{*1} 8 leukemias, 4 liver cancers, 4 brain tumors, 2 cholangiocarcinomas, 2 colon cancers, 1 lung cancer, 1 stomach cancer, 1 pancreas cancer, 1 cervical cancer, 1 bone carcinoma, and 3 site-unknown cancers, ^{*2} 7 anemias and 2 thalassemias, ^{*3} includes 12 epilepsies, 11 headaches, and 7 paraplegia, ^{*4} 2 myocardial infarctions, ^{*5} 21 hemorrhages, 32 infarctions, 13 strokes, and 1 transient ischemic attack, ^{*6} 42 appendicitis, 13 bleeding, 12 cirrhosis, and 10 cholecystitis, ^{*7} includes 23 vertebral compression fractures, ^{*8} includes 90 deliveries including cesarean operation, 6 abortions, 5 ectopic pregnancies, and 4 hydatidiform moles, ^{*9} 2 burns and 3 suicides with poison, and ^{*10} no or unreadable diagnosis

Table 3 Possible infectious diseases as a main cause of admission at Mittaphab Hospital admitted from January 3 to February 2, 2017

Diagnosis	ICD 10	Males		Females		Total	
		N	(%)	N	(%)	N	(%)
Cholera	A00	1	(1.2)	1	(1.3)	2	(1.2)
Typhoid fever	A01	0	(0.0)	1	(1.3)	1	(0.6)
Diarrhea/gastroenteritis	A09.9	4	(4.8)	8	(10.1)	12	(7.4)
Tuberculosis	A15-A19	7	(8.4)	4	(5.1)	11	(6.8)
Sepsis	A41.9	4	(4.8)	5	(6.3)	9	(5.6)
Rickettsiosis	A75-A79	2	(2.4)	1	(1.3)	3	(1.9)
Dengue fever	A90-A91	2	(2.4)	4	(5.1)	6	(3.7)
Viral infection	B34.9	3	(3.6)	8	(10.1)	11	(6.8)
Meningitis	G03.9	1	(1.2)	0	(0.0)	1	(0.6)
Brain abscess	G06	2	(2.4)	0	(0.0)	2	(1.2)
Tonsillitis	J03.9	6	(7.2)	5	(6.3)	11	(6.8)
Pneumonia	J18	15	(18.1)	7	(8.9)	22	(13.6)
Appendicitis	K37	20	(24.1)	22	(27.8)	42	(25.9)
Peritonitis	K65.9	9	(10.8)	1	(1.3)	10	(6.2)
Cholecystitis	K81.9	5	(6.0)	5	(6.3)	10	(6.2)
Urinary tract infection	N39.0	2	(2.4)	1	(1.3)	3	(1.9)
Pelvic infectious disease	N73.9	0	(0.0)	5	(6.3)	5	(3.1)
Pleurisy	R09.1	0	(0.0)	1	(1.3)	1	(0.6)
Total		83	(100)	79	(100)	162	(100)

system, mainly CKD, was the most frequent among those aged ≥ 60 years.

In Lao PDR, traffic accidents of motorcycle riders are a serious problem, mainly due to head or neck injury especially for no helmet riders.⁹ Injuries accounted for 29.7% of 1,509 deaths at this hospital in 2013–15.⁸ A high proportion of injuries observed in the current report was quite consistent with the previous studies. Although there was no information on the cause of injury in this report, traffic accidents seemed to be the major cause of the injury.

In ICD-10, infectious diseases are classified into two groups; infectious pathogens (A00-B99) and anatomical site of infection (the other codes). Table 3 lists possible infectious diseases incorporating both the groups. The proportion (13.5%) demonstrated that infectious diseases were not the majority cause of admission in Lao PDR, indicating the shift to non-communicable diseases. The reason why appendicitis was more frequent than pneumonia was not clear. Since pneumonia is a disease among children in Lao PDR, children with pneumonia might visit or be sent to the children's hospital beside Mittaphab Hospital.

This study found that cerebral infarction was more frequent than cerebral hemorrhage. In the previous mortality study at this hospital, the hemorrhage was more frequent than infarction.⁸ A relatively worse prognosis of cerebral hemorrhage might cause this difference. Generally speaking, prognosis of cerebral hemorrhage has not been improving; median case fatality at 1 month from a world-wide meta-analysis was 40.4%.¹⁰ Compared with Western countries, cerebral hemorrhage is thought to be more frequent in Asian countries, e.g., the past in Japan¹¹ and the present among Asian countries.^{10,12,13}

The reason for the highest frequency of leukemia could be by chance, because death from

Disease frequency in Lao PDR

Table 4 Main disease among inpatients at Mittaphab Hospital according to age group

Diagnosis	ICD 10	Males		Females		Total	
		N	(%)	N	(%)	N	(%)
0–19 years							
Infectious dis.	A00-B99	3	(2.7)	2	(3.3)	5	(2.9)
Nervous sys.	G00-G99	1	(0.9)	0	(0.0)	1	(0.6)
Circulatory sys.	I00-I99	0	(0.0)	0	(0.0)	0	(0.0)
Respiratory sys.	J00-J99	2	(1.8)	1	(1.6)	3	(1.8)
Digestive sys.	K00-K93	4	(3.6)	4	(6.6)	8	(4.7)
Musculoskeletal sys.	M00-M99	3	(2.7)	3	(4.9)	6	(3.5)
Genitourinary sys.	N00-N99	1	(0.9)	5	(8.2)	6	(3.5)
Injury and poisoning	S00-T98	90	(81.8)	36	(59.0)	126	(73.7)
The others		6	(5.5)	10	(16.4)	16	(9.4)
All		110	(100)	61	(100)	171	(100)
20–59 years							
Infectious dis.	A00-B99	18	(4.5)	24	(6.3)	42	(5.4)
Nervous sys.	G00-G99	22	(5.5)	16	(4.2)	38	(4.9)
Circulatory sys.	I00-I99	24	(6.0)	25	(6.6)	49	(6.3)
Respiratory sys.	J00-J99	13	(3.3)	10	(2.6)	23	(3.0)
Digestive sys.	K00-K93	41	(10.3)	27	(7.1)	68	(8.8)
Musculoskeletal sys.	M00-M99	19	(4.8)	18	(4.7)	37	(4.8)
Genitourinary sys.	N00-N99	32	(8.1)	34	(9.0)	66	(8.5)
Injury and poisoning	S00-T98	198	(49.9)	85	(22.4)	283	(36.5)
The others		30	(7.6)	40	(10.6)	70	(9.0)
All		397	(100)	379	(100)	776	(100)
60 years or older							
Infectious dis.	A00-B99	2	(1.5)	6	(4.8)	8	(3.1)
Nervous sys.	G00-G99	0	(0.0)	3	(2.4)	3	(1.2)
Circulatory sys.	I00-I99	25	(19.2)	21	(16.9)	46	(18.1)
Respiratory sys.	J00-J99	19	(14.6)	3	(2.4)	21	(8.3)
Digestive sys.	K00-K93	15	(11.5)	13	(10.5)	28	(11.0)
Musculoskeletal sys.	M00-M99	3	(2.3)	5	(4.0)	8	(3.1)
Genitourinary sys.	N00-N99	24	(18.5)	38	(30.6)	62	(24.4)
Injury and poisoning	S00-T98	29	(22.3)	21	(16.9)	50	(19.7)
The others		13	(10.0)	14	(11.3)	27	(10.6)
All		130	(100)	124	(100)	254	(100)

dis.: diseases, sys.: system

liver cancer was higher than that from leukemia at this hospital in 2013–15.⁸ The global cancer project (GLOBOCAN by International Association of Cancer Registries) also reported the high incidence and mortality of liver cancer in Lao PDR,¹⁴ although the data of Lao PDR was the estimation based on the neighboring regions.¹⁵ Although there were no data on the seropositivity among liver cancer patients in Lao PDR, hepatitis B (54.1%) was reported to be more frequent

that hepatitis C (29.2%) in Cambodia.¹⁶

It should be noted that CKD as the most frequent among those aged ≥ 60 years. The deaths due to renal diseases among those aged 60 years or over in 2013–15 was the secondly frequent.⁸ Since there was no frequency data on CKD in Lao PDR, studies on the frequency seemed to be necessary to estimate the demands for hemodialysis in future.

To estimate disease frequencies, the accuracy of diagnosis is the most important. In this pilot data correction, the methods of diagnosis were not collected for each inpatients. Mittaphab Hospital is a tertiary hospital with modernized equipment such as blood test laboratory, ultrasound echo machine, CT, and MRI.⁸ Although the rare complicated disease cannot be diagnosed, a standard process of diagnosis has been established.

Although this report provided useful information on disease frequency among inpatients in Lao PDR for the first time, there were several limitations other than the precision of diagnosis. First was on the information recorded in the medical chart. Since there were no regulation and incentive to describe the precise diagnosis in a systemic manner, no description on main diagnosis were found in medical charts. Second was the error due to the handwriting. The diagnosis input needed speculation for misspelling and unreadable diagnosis, which might cause the errors in the diagnosis name. The last was the restriction of admission period from January 3 to February 2. The disease frequency seemed to be affected by season. All these limitations disturb the interpretation that these results represent the disease frequency in Mittaphab hospital, tertiary hospitals in Lao PDR, or the whole country.

Disease frequency is influenced by several factors including sanitation conditions, climate, economy, lifestyle and culture. Cambodia is a neighboring country of Lao PDR, possibly having a similar disease frequencies. Although there are frequency data of several diseases such as infectious diseases in Cambodia, it also has no frequency information on common diseases. Thailand and Vietnam are now under a different development stage, having possibly different disease frequencies from Lao PDR. The comparisons among them would be possible when the routine systems on the diseases frequency (mortality and morbidity) are established in Lao PDR.

Standardized medical records are very important. A textbook by MacEachern listed 6 aspects for the usefulness; 1) continuation of treatment and care, 2) clinical research, 3) education of medical staff 4) utilization for public health, 5) hospital administration, and 6) legal evidence.¹⁷ Since Mittaphab Hospital is one of the leading hospitals in Lao PDR, the development of computerized medical records is essential. This pilot data collection of diagnosis may provide essential information for it. At present, Lao PDR does not have the mortality statistics including the leading cause of death. In addition, a hospital survey on disease frequency has never been conducted, except serious infectious diseases. Currently, the country is preparing the introduction of ICD-10. This practice of data collection provided an experience to the ICD-10 introduction.

In conclusion, this report on the main causes of admission at a tertiary hospital demonstrated that injury and diseases of genitourinary system, as well as childbirth and complications of pregnancy, were frequent. The problems on the collection of diagnosis data were identified through this pilot practice. Standardization/simplification of disease codes suitable for Lao PDR will be needed for the computerization of inpatient records in Lao PDR.

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CONFLICT OF INTEREST

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