

Perception, Knowledge and Practices on the Labelling of Dispensed Medicine Among Community Pharmacists and Private Medical Practitioners in the state of Sarawak



NMRR ID: NMRR-19-728-46522

Luqman Nulhakim bin Said¹, Loo Shing Chyi², Augustine Law Foo Khiong¹, Izzah Alia binti Mohamad Rosli¹,

Jessica Low Pei Sze³, Logavinod Nakaswaram³, Lee Yik Hui⁴, Ridhwan bin Abdul Razak¹, Yii Ee Ming⁵

¹Kuching Pharmacy Enforcement Section, Jalan Tun Abang Haji Openg, 93590 Kuching, Sarawak

²Sarawak Pharmacy Enforcement Branch, Jabatan Kesihatan Negeri Sarawak, 93050 Kuching, Sarawak

³Miri Pharmacy Enforcement Section, Jalan Tanjung Lobang, 98000 Miri, Sarawak

⁴Sibu Pharmacy Enforcement Section, 15, Jalan Archer, Pekan Sibu, 96000 Sibu, Sarawak

⁵Bintulu Pharmacy Enforcement Section, Jalan Tun Ahmad Zaidi, 97000 Bintulu, Sarawak

INTRODUCTION:

The labelling of dispensed medicines (LDM) has been regulated worldwide to provide sufficient information to patients ensuring the appropriate use of medicines. A past study revealed that the compliance level towards the regulations on LDM among community pharmacists (CPs) and the private medical practitioners (PMPs) in the state of Sarawak was not satisfactory.

OBJECTIVE:

To explore the perception, knowledge, and practices of CPs and PMPs on LDM.

METHODS:

1. A cross-sectional study was conducted from April 2019 until January 2020.
2. Minimal sample size was calculated; 90 CPs and 150 PMPs.
3. Proportionate stratified random sampling was employed and 96 CPs and 154 PMPs participated.
4. A self-administered structured questionnaire exploring the perception, knowledge and practice on LDM was developed, which was later pre-tested (n=5), and pilot-tested (n=36) with Cronbach's alpha value of 0.71.
5. Participants consents were taken before enrolling them into the study.
6. Knowledge score was the percentage of correct LDM requirements (as per Regulation 12 of Poisons Regulation 1952) listed by the participants; while practice score was the percentage of LDM requirements filled by the participants on their respective premises dispensed medicine labels.

RESULTS:

1. The majority of the respondents **perceived that it is important (94.8%) and necessary (94.8%) to comply** with the requirements on LDM and perceived that **they are complying (93.6%)** to it.
2. Vast majority of them **(97.2%) perceive that poor compliance to LDM requirements would lead to medication errors.**
3. The median **knowledge score of CPs (66.7%) was statistically and significantly (p=0.004) higher than PMPs (50.0%).**
4. Most of them perceived that they know the LDM requirements (97.6%), but their knowledge score on it was poor (both <70%).
5. In terms of knowledge on LDM requirements, patients name was the only significant requirement (p=0.008) between CPs (81.0%) and PMPs (69.5%).
6. However, the practice score was excellent for both CPs and PMPs (median practice score of 100%).
7. Name of medicine (7.6%) was most commonly found absent on the reviewed dispensed medicine labels.
8. Knowledge (r=0.055; P=0.382) and perception (r=-0.022; P=0.732) of PPHCP does not correlate with their practice in writing dispensed medicine.

DISCUSSION:

1. Poor knowledge score did not affect the practice on LDM by the CPs and PMPs.
2. This could be due to having the dispensed medicine labels printed in advance with spaces left for the LDM requirements specific to each patient to be filled on them. This is an already existing visual aid which helps the practitioners to simply fill the requirements on the labels.
3. Although the CPs and PMPs have excellent practice score, their actual compliance on LDM requirements still left to be explored, as a study done in Sarawak in 2015 demonstrate that 47% to 50% of CPs and 49% to 66% of PMPs were not fully compliant to the laws and regulations on poisons and sale of drugs, which include LDM¹.
4. The name of medicine was found to be the LDM requirement which was most commonly absent on the labels filled by CPs and PMPs on the questionnaire. This was contrary to the findings from a study in Penang in 2009, in which the name of the patient was the requirement which was mostly absent².
5. Recommendation: Further study exploring the correlation between the practice on LDM and the compliance to the LDM requirements needs to be done to better grasp the situation.

CONCLUSION:

The majority of CPs and PMPs perceived that appropriate LDM are important and necessary. Interestingly, although their knowledge on LDM requirements was poor, their self-reported practices were good. However, the question of whether this is manifested in their actual compliance to LDM requirements on actual dispensed medicine labels still need to be explored.

REFERENCES:

1. Ting CY, Loo SC, Ting H, Ang WC, Jabar AHA. Compliance of Community Pharmacists and Private General Medical Practitioners With Malaysian Laws on Poisons and Sale of Drugs. *Therapeutic Innovation & Regulatory Science*. 2017;51(4):439-445.
2. Neoh C, Hassali M, Shafie A, Awaisau A, Tambyappa J. Compliance Towards Dispensed Medication Labelling Standards: A Cross-Sectional Study in the State of Penang, Malaysia. *Current Drug Safety*. 2009;4(3):199-203.

Table 1: Social Demographic Data

Variables	Frequency n(%)	Mean (SD)
Community Pharmacists (CPs)	96 (38.4)	
Private Medical Practitioners (PMPs)	154 (61.6)	
Age		45.84 (13.929)
Year of Practice		19.76 (13.169)
Year of Experience as Private Practitioners		15.66 (12.331)

Table 2: Perception of CPs and PMPs on LDM

Perception on LDM Requirements	Variables	CPs n(%)	PMPs n(%)
Do you agree that it is important to comply with the requirements	Agree	90 (93.8)	147 (95.4)
	Neutral	6 (6.2)	4 (2.6)
	Disagree	0 (0.0)	3 (2.0)
Do you agree that poor labelling would lead to medication errors	Agree	94 (98.0)	149 (96.8)
	Neutral	1 (1.0)	2 (1.3)
	Disagree	1 (1.0)	3 (2.0)
Do you agree that it is necessary for you to comply with the requirements	Agree	52 (93.8)	149 (96.7)
	Neutral	6 (6.2)	2 (1.3)
	Disagree	0 (0.0)	3 (2.0)
Perceived Self-Compliance to LDM requirements	Variables	CPs n(%)	PMPs n(%)
Do you agree that you are complying with the LDM requirements	Agree	88 (91.7)	146 (94.8)
	Neutral	8 (8.3)	5 (3.2)
	Disagree	0 (0.0)	3 (2.0)
Do you agree that the premise you are practising in is complying with the LDM requirements	Agree	86 (89.6)	146 (94.8)
	Neutral	10 (10.4)	5 (3.2)
	Disagree	0 (0.0)	3 (2.0)
Perception on Knowledge on LDM requirements	Variables	CPs n(%)	PMPs n(%)
Do you know the requirements that are to be written/filled on the dispensed medicine labels	Yes	95 (99.0)	149 (96.8)
	No	1 (1.0)	5 (3.2)

Table 3: Median Knowledge Score

	Median Knowledge Score (IQR)	Z-Statistics	P-value
CPs (n=96)	66.7 (0.33)	-2.92	0.004
PMPs (n=154)	50.0 (0.33)		

Table 4: Median Practice Score

	Median Practice Score (IQR)
CPs (n=96)	100.0 (0.00)
PMPs (n=154)	100.0 (0.04)

Chart 1: Knowledge Score vs Practice Score of CPs & PMPs

