

The prevalence and related factors of potential inappropriate medication use in older adults

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Background

- ◆ Older adults usually were admitted for acute conditions. Due to multi-morbidity they had high chances for taking polypharmacy and then caused high risks of potentially inappropriate medications (PIM).
- ◆ At least PIM was prescribed to older patients at admission. However, it is not clear whether or not PIM was decreased at discharge.

Aims

- ◆ To understand the prevalence and related factors of PIM in older adults in hospitalization.

Methods

- ◆ Correlation and regression method was conducted, and 502 subjects were recruited from a medical center in northern Taiwan.
- ◆ Charlson Comorbidity Index (CCI), cognitive and functional status, and 2015 Beers Criteria were used for data collection.
- ◆ Data were assessed using Pearson correlation and logistic regression.

Results

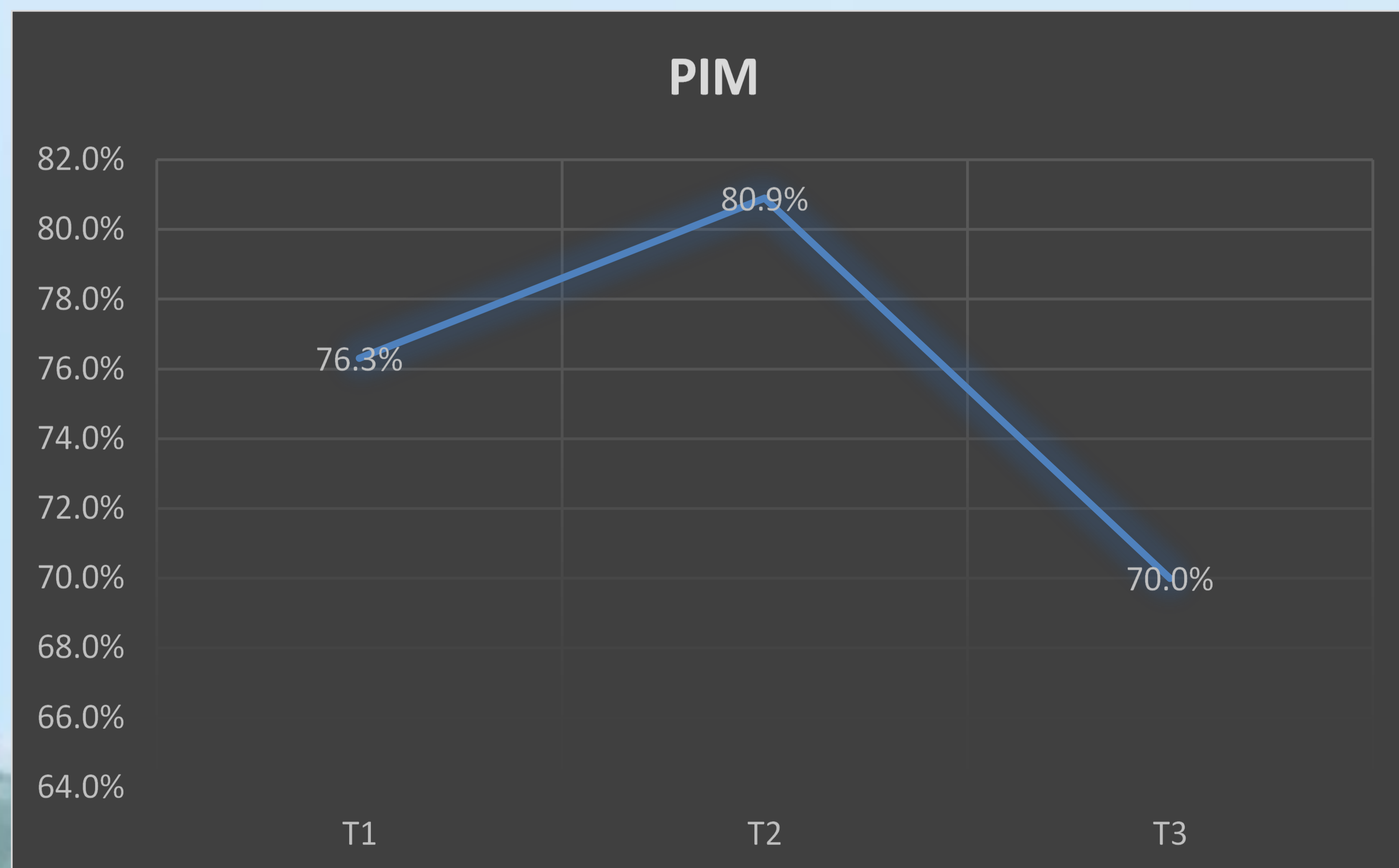


Figure 1 percent of potentially inappropriate medication

Table 1 Pearson Correlation for Potentially Inappropriate Medication

Variables	T1	T2	T3
age	.128**	.069	.139**
Long of stay		.593***	.165***
T ₁ - cognitive status	-.168***	-.185***	-.099*
T ₃ - cognitive status			-.109*
T ₁ - functional status	-.216***	-.241***	-.199***
T ₃ - functional status			-.232***
T ₁ - diagnosis No.	.277***	.200***	.221***
T ₂ - diagnosis No.		.363***	.253***
T ₃ - diagnosis No.			.227***
T ₁ - CCI	.170***	.177***	.151***
T ₂ - CCI		.243***	.197***
T ₃ - CCI			.198***
T ₁ - medication No.	.534***	.277***	.260***
T ₂ - medication No.		.739***	.322***
T ₃ - medication No.			.451***

Note: T₁ =at admission; T₂ =during hospitalization; T₃ =at discharge; CCI=Charlson Comorbidity Index; N0.=number; *** = p <.001; ** = p <.01; * = p <.05

Table 2 Predictors of Potential Inappropriate Medication

Variables	Exp(B)/Odds	95%CI	P
T ₁ - CCI	1.075	1.004-1.152	.039
T ₃ - CCI	1.080	1.012-1.152	.020
T ₁ - medication No.	1.240	1.165-1.320	<.001
T ₂ - medication No.	1.165	1.104-1.230	<.001
T ₃ - medication No.	1.159	1.087-1.235	<.001

Note: T₁ =at admission; T₂ =during hospitalization; T₃ =at discharge; CCI=Charlson Comorbidity Index; No.=number

Conclusions

- ◆ This study suggests that CCI and number of medication taken were significant predictors of PIM in older adults.
- ◆ The health care professionals are responsible for medication review in older adults. Especially, it is needed to review medication carefully while the number of medication taken is increased due to increased severity of disease in older adults.