

Over a decade of trends in gabapentinoid prescribing and daily doses among patients taking opioids for pain management in Malaysia (2010-2020)

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Background and Objective

Gabapentinoids (gabapentin and pregabalin) are recommended as first-line therapies for neuropathic pain and have seen a significant increase in prescriptions, particularly in the UK and the United States. However, they raise safety concerns related to central nervous system depression, which can include drowsiness, dizziness, and possibly cognitive impairment. Furthermore, combining gabapentinoids with opioids can increase the risk of adverse outcomes associated with opioid use.

This study evaluated the prescribing trends for gabapentinoids among patients using opioids and examined their daily doses according to different age groups

Methods

- A retrospective cross-sectional study was conducted using prescription data from a tertiary hospital in Malaysia.
- All prescriptions for gabapentinoids (gabapentin and pregabalin) that were prescribed for patients using opioids for pain relief during the study period were included.
- Data such as patient demographics, prescription details, and daily doses of gabapentin and pregabalin were analysed.
- Outcome measures included the number of prescriptions per patient, mean daily dose, and prescription trends stratified by age groups (<65 years and ≥65 years).
- Descriptive statistics were performed using Stata v15

Annual number of prescriptions and monthly daily doses

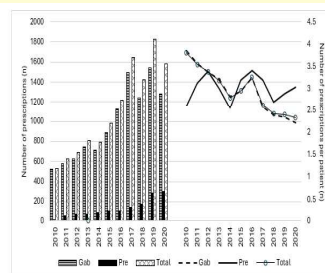


Figure 2 Number of prescriptions and prescriptions per patient for gabapentinoids from 2010 to 2020
Figure legends: Gab=gabapentin, Pre=pregabalin

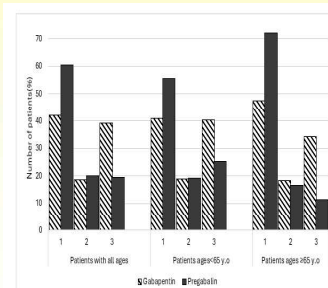


Figure 3 Monthly daily doses of gabapentinoids for all ages, patients <65 and patients ≥65 years.
Gabapentin doses: 1=(<600), 2=(600 to <900), 3=(≥900) mg/day
Pregabalin doses: 1=(<300), 2=(300 to <450), 3=(≥450) mg/day

Trends in mean daily doses of gabapentin over time

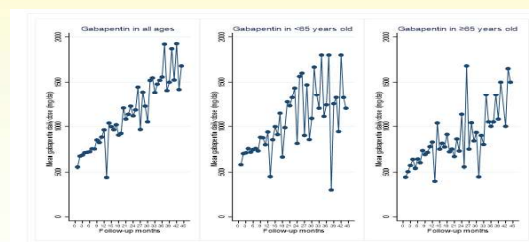


Figure 3. Trends in monthly mean daily dose of gabapentin across all age, for patients under 65 and those 65 and older.

Results-patient demographics

Descriptions		n	%
Gender	Female	1063	54.30
	Male	893	45.70
Age (SD)	56.5(15.1)		
	Ages <65 y.o	1167	67.10
	Ages ≥65 y.o	572	32.90
Race	Malay	1066	45.50
	Chinese	642	27.40
	Indian	903	25.70
	Others	34	1.40
Number of prescriptions	Gabapentin	9533	66.20
	Pregabalin	1193	10.80
Issuing department	Anaesthesia	5,180	48.47
	Medical	610	5.71
	Nephrology	465	4.35
	Orthopaedic	1,761	16.48
	Palliative Care	556	5.2
	Rheumatology	528	4.94
	Surgical	473	4.43
	Others	1,113	10.42

Note: Age data was missing for 606 patients, and gender data was missing for 389 patients.

Trends in mean daily doses of pregabalin over time

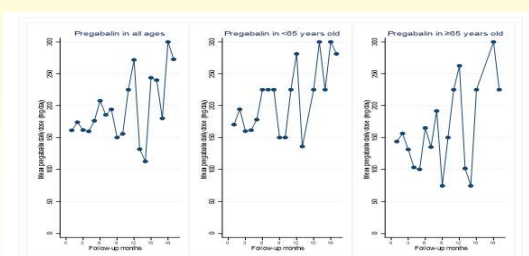


Figure 3. Trends in monthly mean daily dose of pregabalin across all age, for patients under 65 and those 65 and older.

Conclusion

The use of gabapentinoids among opioid users rose significantly from 2010 to 2020, with a marked rise in both prescription frequency and mean daily doses. The trend was more pronounced for gabapentin, particularly among older patients, raising concerns about the safety and implications of concurrent gabapentinoid and opioid use.

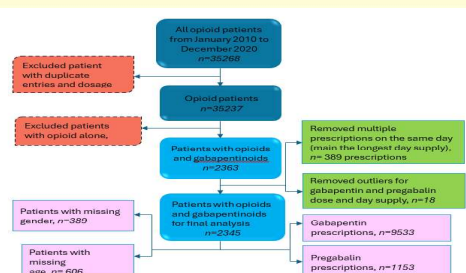


Figure 1 Cohort flow chart