Pregabalin and Gabapentin Drug Utilisation Review

Abstract number: 4CPS-343, ATC code: N03 - Antiepileptics



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INTRODUCTION

Pregabalin and Gabapentin are indicated for the treatment of neuropathic pain and epilepsy. Pregabalin is also indicated for the treatment of generalised anxiety disorder. Both drugs are included in the top 100 products reimbursed by the Primary Care Reimbursement Service¹. Gabapentin is included in the hospital formulary and acute pain management guidelines. Pregabalin is a non-formulary drug.

The Health Service Executive Medicines Management Programme have highlighted the need for vigilance when prescribing and dispensing Pregabalin or Gabapentin as both drugs have a risk of addiction and a potential for misuse or abuse². In 2017, the controlled drug status of z-drugs and benzodiazepines was escalated. This change has potentially increased the misuse of Pregabalin and Gabapentin that are not subject to the same stringent prescription requirements. A recent systematic review found that reports of Pregabalin and Gabapentin abuse are increasingly being documented worldwide³. In the UK, following public consultation and advice from the Advisory Council on the Misuse of Drugs, Pregabalin and Gabapentin are being reclassified as class C controlled drugs from April 2019, effecting both prescription requirements and the legal impact of possession.

AIMS & OBJECTIVES

- To examine pharmacy supply of Pregabalin and Gabapentin over the past four years, and to determine usage trends.
 - To assess if Pregabalin and Gabapentin are being initiated for patients in-house, what doses are being used and if prescribed for epilepsy.

METHODS

- Reports on Pregabalin and Gabapentin supply in the previous 4 years were generated from the electronic hospital information system.
 - A one day hospital-wide review of Pregabalin and Gabapentin prescribing was conducted in August 2018.
- Clinical Pharmacists completed the data collection on every inpatient ward by examining the drug chart and the medical notes.
- A data collection form was designed to collect information on the number of patients prescribed Pregabalin or Gabapentin, the dose prescribed, if treatment was started prior to hospital admission and if the patient had a history of epilepsy.
- For patients prescribed either drug, the medical notes were consulted to ascertain the indication for Pregabalin or Gabapentin. As neuropathic pain and generalised anxiety disorder are infrequently recorded in the medical history of a patient, the data collection tool asked Clinical Pharmacists to ascertain if the patient had a documented history of epilepsy or not. If there was no documented history of epilepsy is was assumed that Pregabalin or Gabapentin was prescribed for neuropathic pain or generalised anxiety disorder.

Table 1: MMUH Pregabalin and Gabapentin Unit Doses Used, 2015 to 2018

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	2015	2016	2017	2018
Pregabalin (all strengths)	74,169	71,462	76,552	79,597
Gabapentin (all strengths)	54,478	57,418	68,681	63,144

RFSULTS

- Table 1 shows the hospital Pregabalin and Gabapentin unit doses supplied from pharmacy from 2015 to 2018.
- Hospital usage of Pregabalin and Gabapentin has increased by 7% and 16% respectively during this time frame.
- 588 in-patients were reviewed by the Clinical Pharmacists.
- Table 2 shows the number of patients prescribed Pregabalin and Gabapentin, if the drug was commenced pre-admission and if there was a documented history of epilepsy.
- A total of 23 dosing schedules were observed for Pregabalin and 17 dosing schedules for Gabapentin.
- 75mg twice daily (n=8) was the most commonly prescribed dose of Pregabalin. 300mg three times daily (n=12) was the most commonly prescribed dose of Gabapentin.

Table 2: Number of Patients, Indication & Commencement Details

	Number of patients	Number of patients with a history of epilepsy	Number of patients prescribed agent before admission
Pregabalin	53 (9%)	1	83% (n= 44)
Gabapentin	45 (8%)	5	47% (n= 21)

CONCLUSION

Hospital prescribing of Pregabalin and Gabapentin has increased since 2015. The high rate of Gabapentin initiation at the hospital reflects post-operative pain guidelines. In contrast, most patients commenced Pregabalin prior to hospital admission. The results suggest that Pregabalin and Gabapentin are rarely prescribed for epilepsy.

These results were disseminated to the Drug and Therapeutics Committee. Interventions for appropriate use will be explored. Future studies to address if Gabapentin prescriptions are appropriately continued on discharge from the hospital are required. As the legal control and abuse potential concerns heightens for Pregabalin and Gabapentin, continued review will be warranted. This review will provide baseline data for which future studies can be compared against.

DISCLOSURE:

- . Dearbhla Murphy nothing to disclose
- 2. Mariosa Kieran nothing to disclose
- Jennifer Brown nothing to disclose

REFERENCES

- Health Service Executive Primary Care Reimbursement Service. Primary Care Reimbursement Service Statistical Analysis of Claims and Payments 2017. [updated 2017; cited 2019 January/08]
- Health Service Executive. Circular 046/16. 2016. [updated 16/09/16; cited 2019 January/08]. Available from: https://www.hse.ie/eng/staff/pcrs/circulars/gp/preferred%20drugs%20programme.pdf
- 3. Evoy K, Morrison M, Saklad S. Abuse and Misuse of Pregabalin and Gabapentin. Drugs. 2017; 77(44): 403-426