Group Discussion: Pregabalin Quality Use of Medicines (QUM) issues

Date: January 2019

Question:
The overuse and misuse of pregabalin has been reported in a number of recent reports and articles. These reports have shown an association with morbidity in Australia and the UK. Given its high use, it also represents a high cost to government within the PBS. It is unclear what the Quality Use of Medicines (QUM) and cost implications are for pregabalin use in hospitals.

Recently published articles and information include:

- Queensland Patient Safety Notice: Gabapentinoids and quetiapine- potential excess or illicit use and safety risk- published on Queensland Health Intranet 7 Jan 2019
- MJA 4 Feb 2019, Vol 210 Issue 2:
  - Pregabalin misuse: the next wave of prescription medication problems
  - Pregabalin misuse-related ambulance attendances in Victoria, 2012–2017: characteristics of patients and attendances

NSW TAG and TAGNet members were asked to provide feedback about:

1. QUM issues with pregabalin
2. Incidents associated with its use
3. Potential solutions

Responses:
9 responses were received.

Of note, a number of incidents are related to:

- related to mix-ups between pregabalin and gabapentin
- dosing errors where too much has been given including 10-fold dosing error
- (over)use in very elderly patients
- inappropriate dosing

1. **QUM issues with pregabalin**

Bowral
- Rampant pregabalin prescribing in nursing home patients
- Dose reduction or cessation after coming in with a fall
- Community patients on pregabalin for sciatic pain (wrong indication)
Blacktown, Acute Pain Service CNC

- We see a reasonable amount of inappropriate prescribing with patients on doses which are too high (e.g. 600mg BD). I do think that some of the underlying problem is patients not having adequate access to pain management services where an assessment of the whole person and their broad pain management can be undertaken. The patient on 600mg BD had underlying mental health issues and serious polypharmacy so pregabalin was just part of a bigger problem.
- We also see underprescribing for neuropathic pain in patients with no co-morbidities where morbidities where it is very appropriate that it is started on pregabalin and the doctor chooses 25mg BD.
- Prescribers seem reluctant to reduce and cease a drug if pain has not been significantly improved.
- We are often ceasing pregabalin when we cannot identify any element of neuropathic pain. I think that sometimes doctors just want to do something, start something without necessarily thinking about whether it really is the appropriate choice of drug for the type of pain that is being experienced.
- We strive for the smallest dose possible of any drug to get an effect with a strong expectation that activity of some sort needs to be achieved with any increase of an analgesic medication.

JHH
- Issue not raised.
- We restrict use of pregabalin to PBS indication – neuropathic pain resistant to other drugs and limit discharge prescriptions to 7 days.

SESLHD
- Current formulary status for pregabalin in SESLHD:
  - Restricted in line with PBS indications
  - Last review of formulary status in 2013 (previously approved for “Pain, spinal and palliative care physicians when patient intolerant of gabapentin”)
- Issues raised through SESLHD QUM Committee:
  - Nil minuted from January 2016 to current
  - I’m unable to comment whether issues were raised at the individual facility’s DTC meetings

See detailed incidents reported below in section 2.

2. Incidents associated with its use
Murrumbidgee LHD

I have run an incident report and identified that there has been multiple incidents.

These include:
- Multiple mix ups between the 25mg strength and 75mg strength. These incidents are quite variable and range from being prescribed 25mg and administered 75mg, both 75mg and 25mg charted & administered to patient when only 75mg was intended for ordering and administration.
- Pregabalin administered at the wrong time as that charted.
- Pregabalin 150mg dispensed, packed to Aged Care residents Webster pack and then administered when 75mg was the MO’s order.
- A patient was inadvertently change to gabapentin from pregabalin when a patient’s medications were re-charted on a new chart.
- 25mg prescribed instead of 150mg
- 150mg nocte prescribed rather than 300mg nocte dose.
- 500mg twice daily charted instead of 50mg twice daily
- Pregabalin dispensed instead of gabapentin.
- Pregabalin administered instead of irbesartan.

It is difficult to know the indications these were prescribed for without reviewing each individual patient which I haven’t had the opportunity to do. However, it would be interesting to check the amount of off label prescribing that is occurring and also how many of the above incidents relate to a patient being started on the treatment in hospital versus those where they simply continued on admission or had a dose change made during admission.

POWH
- No misuse incidents reported.

St George
- No major incidents that were not due to simple process issues.

Illawarra Shoalhaven LHD
I know there were a couple of incidents relating to pregabalin use/toxicity resulting in ICU reviews and admissions down in ISLHD a couple of years back as well, associated with inappropriate dosing with impaired renal function and in combination with opioids.

SESLHD
32 incidents reported through IIMS across SESLHD from 2016-18. Incident types and descriptions of note specifically relating to pregabalin (excluded incidents relating to poor administration practice not specific to pregabalin and patient self-administration of own medications while in hospital)
**Administration incidents**

<table>
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<th>Incident</th>
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<tr>
<td>Pt charted pregabalin 75mg BD. Both 75mg &amp; 25mg capsules on imprest - nurse collected 3 x 75mg capsules to administer to patient. Error identified prior to administration.</td>
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<tr>
<td>Patient administered 300mg of Pregabalin when the intended dose was 150mg.</td>
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| Nursing report from evening staff of the 1/1/18 reports ‘all medications given as charted’. Medications: noted on top of patient's locker 0.2ml clear liquid, 2 tablets and 15mls clear liquid. Nursing report notes patient was in increased amount of pain during evening 1/1/18 and early morning 2/1/18. Patient charted heparin s/c 0.2mls, fleet drops 15mls, dexamethasone 2mg, pregablin 75mg which are all signed for as administered.
| Patient went for a procedure without his baseline analgesia (tapentadol, pregabalin, paracetamol, Targin). Nurses withheld as the patient was fasting. Anaesthetic assessment clearly states to take ‘all main medications with sip of water on day of surgery’ Nil documentation in patient’s progress notes from medical to give medication only on anaesthetic assessment. Patient was in significant pain throughout the procedure despite heavy opiate use throughout the procedure. The procedure was always planned to be performed under sedation - this omission of medications made management difficult and caused the patient to experience more pain due to lack of baseline analgesia medications.
| PT (70 to 74 years) had reaction of drowsiness to Pregabalin dose as same had not been given on previous 2.5 days. Order was increased from 75mg to 100mg BD on 8/7/16 but no 100mg capsule available so not given for 5 BD doses (Medication not given due to correct dose unavailable) Patient monitored during drowsiness and RMO review. Medication withheld per RMO order, and reduced back to 75mg. Increased education to nursing staff re ensuring medication given or recharted to available medication.
| 25mg Pregabalin given at 08:00 instead of 20:00. Reported to NUM, spoke to Dr for expectations = may be more drowsy today and may have neuropathic pain later in the day. Medication given at wrong time of day due to not being written in 2400 timing and not identified by nurse before medication given. Nil adverse outcome to patient. |

**Prescribing**

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<th>Prescribing error in an elderly pt (90 to 94 years)</th>
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<td>Pt ordered pregabalin 75mg bd po. MMP completed by pharmacist - confirmed with that that she was ordered this medication last time she was admitted, but decided not to take it as it left her groggy the next morning after taking it at night. Contacted RMO, who ceased the medication. Also, ordered regular Panadol Osteo 665m tds, plus a prn order for Panadeine Forte, two tds. Contacted RMO, who ceased Panadeine Forte order</td>
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<tr>
<td>Patient was on 125mg Lyrica. Reviewed by medical team 18.12.17 and documented for Lyrica 25mg, however 250mg Lyrica charted. Nursing staff administered 250mg dose at 20:00hrs 18.12.17 and 08:00hrs 19.12.17. Nursing staff unaware dose was to be 25mg instead of 250mg. Medical plan documented on 18.12.17 round for Lyrica 25mg, staff didn’t note dose change differing to medication chart, and had assumed dose was increased. RMO reviewed patient at 08:30hrs and noted patient was drowsy. Documented to withhold PM dose of Lyrica. Patient had unresponsive episode at 11:00hrs which resulted in a PACE call. NUM reviewed medication chart and clinical notes noticed error in prescribing. Medical team aware. JMO incorrectly prescribed wrong dose which resulted in incorrect dose being administered.</td>
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Regular pregabalin and amitriptyline not charted by ED on admission. Pt transferred to ward with no regular medications charted.

Received patient from ED with medication chart. Patient label correct however patient advises us that he takes no medications. He was prescribed multiple medications including frusemide, pregabalin, aspirin, metoprolol, amlodipine and rosuvastatin. No medications were given to patient due to ICU staff attempting to clarify his medication indications.

Pregabalin double charted. One charts has Lyrica 25mg bd (NEW) charted, and another chart had Pregabalin 75mg mane and Pregabalin 150mg nocte. Orders are charted by different doctors. Medication WH by nurse and team notified.

Prescribing/Administration

50mg of pregabalin in the mane as a usual dosage charted & administered at 0740, then team increased to 150mg BD, dosage of 150mg was then given at 0900, total given within the morning was 200mg. Communication issue.

Patient charted for gabapentin 75mg however intended medication was pregabalin. Nursing staff had been administering "gabapentin 75mg" for six days prior to error identification. It is difficult to confirm whether a reformulated dose of gabapentin was administered or pregabalin capsules from the ward imprest stock. Recharted to pregabalin after identification by pharmacist.

patient prescribed Lyrica 75mg BD nil route or medical officer signature, doses administered for 3 days

Prescribing error - pt (aged 95 to 99 years) charted separate orders for pregabalin 100mg and 75mg oral. Nocte doses for both orders on 9/9/2017 were signed off. Medication given as charted but due to high dose patient did experience drowsiness following the medication. Error in prescribing was corrected by the after hours RMO and nil significant adverse events to the patient as a result of this incident.

Pt (>100 years from nursing home) prescribed Pregabalin 300mgs BD on 2/6/2016 after the ward pharmacist contacted patient's local pharmacy to reconcile the medications because the local pharmacist indicated pt was dispensed Pregabalin 300mgs BD. Palliative CNC was called to review patient with increased drowsiness on 3/6 and the CNC found that the patient was on Gabapentin 300mgs daily at Nursing Home, not on Pregabalin 300mgs BD. Pregabalin 300mgs bd is equivalent to gabapentin 3,600mgs which is a very large dose for a 100 year old patient. The medical team was informed, Pregabalin 300mgs was ceased and Gabapentin was reintroduced after 48 hours wash out. Pt was returned to nursing home with no adverse side effects from the error.

Patient (85 to 89 years) has been given Lyrica 250mg BD per day for 2 days. The dose has been checked with pharmacy and confirmed patient should be on 25mg BD. On call Plastic RMO informed and she stated that "she will review pt" this afternoon. Pt alert and orientated. Obs attended. obs stable within pt's normal ranges. Bp106/64mmHg HR 60 Temp 35.8 99 SatO2 with 4L oxygen via NP. Medications correlated with MMP and medications documented in pre-admission paperwork prior to giving first dose.
3. **Potential solutions**

**NSW Health Strategic Procurement services:**

- Scheduling intervention (moving to S4D status then monitor rather than going straight to S8 classification). (There has been some discussion in Scotland re rescheduling.)

*Responses received as at 3 January 2019*

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