Case 4 (Part 2) - December 2015

SA Palliative Care

Community Pharmacy Update

A joint initiative of South Australian Palliative Care Services

This update will discuss a local case report which brings to attention safety concerns involving the combination product of Slow Release (SR) oxycodone *plus* naloxone (Targin®). The previous update (133kb pdf) discussed the role and efficacy of Targin®.

Gerald's Story

Gerald is a 65year old man with lung cancer and additional metastasis to his liver who lives at home with his daughter. He was commenced on Targin® by his GP 2 months ago with initial improvement in pain allowing him to play with his grandchildren and enjoy daily outings. Unfortunately his pain control had deteriorated despite his GP prescribing two dose increases in the last month. The increasing pain made moving out of bed unbearable. Admission to hospital for investigation and management of pain was arranged.

In hospital the medical team swapped his current Targin® dose of 40/20mg twice daily to OxyContin® 50mg twice daily plus commenced on pregabalin 25mg nocte. His investigations were unremarkable, liver function tests (LFTs) only slightly raised. When he was discharged home the next day, his daughter was concerned as Gerald was experiencing severe delirium and was too fatigued to get out of bed. His OxyContin® was reduced to 20mg twice daily and 24 hours later he was back to his usual self, pain free and out shopping for a gopher.

What may explain this situation?

Gerald seemed to have experienced systemic opioid antagonism when taking oral naloxone. This may explain his uncontrolled pain as analgesic effects from oxycodone were antagonised.

The hospital initiated change to OxyContin® appears consistent with his assumed opioid tolerance and increasing pain requirements. Subsequent opioid toxicity at home indicates the opioid equivalence between the two formulations had been affected.

Naloxone undergoes extensive first-pass metabolism in healthy people, resulting in low bioavailability. This case and others suggests patients with minor changes in liver function may have insufficient liver metabolic activity to metabolise naloxone resulting in higher systemic levels.

Take home messages

- Be aware of patients with cancer in the liver/ other mild liver changes who may process oral naloxone differently.
- Review management when pain is escalating despite increased Targin® dosing.
- Be cautious when Targin® is switched to another opioid as usual opioid equivalence may not apply.

Similar published cases

- Burns E, McWilliams K, Ross C. A cautionary tale of oral naloxone. J Pain Symptom Manage. 2014 Feb;47(2):e1-2.
- Kang JH, Lee GW, Shin SH, Bruera E. Opioid withdrawal syndrome after treatment with low-dose extended-release oxycodone and naloxone in a gastric cancer patient with portal vein thrombosis. J Pain Symptom Manage. 2013 Aug;46(2):e15-17.

For more information

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