DPSF | DENTAL PATIENT SAFETY FOUNDATION

Patient Safety Listed PSO Organization

P0198

Shared Learning

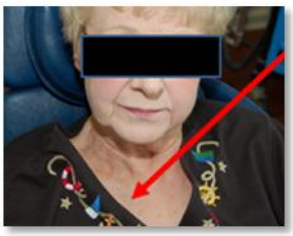
from the Dental Patient Safety Foundation Reporting Tool

"What gets measured gets managed" is the DPSF philosophy to encourage reporting. All received information about patient safety events (unsafe conditions, near misses or adverse events) are de-identified contextually (confidentiality is fully protected under federal law), aggregated, analyzed and abstracted by selected experts from our DPSF committees. Reports are generated and disseminated as the only means to learn from our errors. The information in these peer-reviewed reports is provided for its educational value only, and does not purport to establish any legally binding standard of care. Feedback is encouraged.

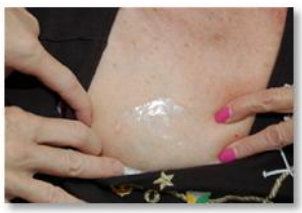
Case 2019.4A: Nalbuphine Induced Opioid Withdrawal

Situation: A 60kg 34 y/o female presented for a periodontal procedure under IV moderate sedation. PMH included severe fibromyalgia and migraine headaches. She reported taking no medications and had no drug allergies. VS: HR 82/min, BP 140/88mmHg, room air SpO_2 99% and RR 16/min. Sedative agents included 40% N_2O, IV nalbuphine (Nubain™) 10mg and midazolam 5mg titrated to effect. During administration of local anesthesia, patient become agitated, prompting the clinician to redose an additional 10mg nalbuphine. The patient's agitation became more pronounced, requiring restraint by the dentist and assistants. VS now: HR 125/min BP 155/102mmHg, SpO_2 99% and RR 25/min. The dentist aborted the case, and administered 4mg naloxone IV. Agitation worsened, 911 was summoned, patient transported to local ER, where it was revealed that the patient was wearing a Duragesic™ (fentanyl) patch to manage her fibromyalgia. The agitation was thought to be due to an acute opioid withdrawal reaction, triggered by the nalbuphine (mixed opioid agonist/antagonist) and worsened by the naloxone. Withdrawal symptoms abated after adjunctive medications were administered and opioids were gradually replaced.

What we learned: As medical science advances, an increasing number of patients are presenting to the dental office on a cornucopia of pharmaceutical agents, including those administered by mouth, transdermal and by inhalation. In this case, the patient admitted afterward that she did not report the use of a patch because she did think of it as "medicine". The dentist failed to inquire why she was not receiving pharmacological treatment for her fibromyalgia, which she described as "severe". Such an inquiry might have revealed the presence of the opioid patch and a different opioid could have been used if needed.



Recommendations: A detailed medical history should be taken on all patients, to include PMH and any/all pharmaceutical agents. Medical conditions present without appropriate treatment should be investigated further, as should drugs listed for which there is no medical indication. This "cross-referencing" will often prevent miscommunication between patient and provider.



Opioid Withdrawal

- Iatrogenic withdrawal (drug-induced) can be potentially life-threatening.
- Clinical features include dysphoria, restlessness, delirium, violence, cramping, nausea, vomiting, tachycardia and hypertension.
- The 2 other opioid agonist/antagonists, pentazocine (Talwin™) and butorphenol (Stadol™) have largely disappeared from clinical use in office-based dental sedation.

The DPSF encourages frequent reporting of unsafe conditions, near misses and adverse events as the only means to close the gap between knowing how to prevent these occurrences and taking the necessary action to do so. Please visit our website.

Additional reading:

Wesson DR, Ling W. The Clinical Opiate Withdrawal Scale (COWS). J Psychoactive Drugs 2003; 35: 253.

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