

**Who we are...**

Since 1989, Med League Support Services, Inc. has aided attorneys in 38 states. We perform these services:

- Analyze medical records
- Develop case chronologies
- Screen malpractice cases for merit
- Prepare PowerPoint presentations for settlement negotiations or trial
- Locate nursing & physician experts
- Prepare medical summaries & reports
- Transcribe handwriting
- Prepare life care plans
- Prepare demonstrative evidence
- Prepare medical illustrations
- Assist with preparation of demand letters and settlement brochures

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To Sleep the Eternal Sleep

Susan Hill (fictitious name) was wheeled up to her post-operative medical surgical room at 11:30 AM. Mrs. Hill weighed 120 pounds; she was recovering from a hysterectomy. Her postoperative medications included Demerol (meperidine) 50-100 mg IM every 3-4 hours PRN (as needed), and Phenergan 12.5 mg IV every 6 hours PRN for nausea. The nurse assigned to the patient until 7 PM administered 50 mg of Demerol at 12:30 PM and 100 mg at 2 PM and 5 PM. Phenergan 12.5 mg was given IM at 12:30 PM, 2 PM and 5 PM. The nurse administered Phenergan to potentiate the action of Demerol (although this drug does not potentiate the pain relief of Demerol and increases the risk of oversedation.) The patient had no complaints of nausea.

The next nurse came on duty at 7 PM. The patient began complaining of a headache around 8 PM. Susan's concerned mother called her sister, who was a nursing supervisor at the hospital, but was off duty at the time. The nursing supervisor suggested that Susan's mother ask if a physician could see her daughter, and provide the information that the patient had reactions to opiates in the past, but had gotten good pain relief from Toradol. The first-year resident came up to evaluate the patient at around 8:15 PM. The

daughter's bedside. She provided the history of reactions to opiates and that Toradol had been effective; she hoped the doctor would change the Demerol order. The doctor responded, "I am the doctor. I know what I am doing." The resident made no changes in the orders, except for ordering the Phenergan 12.5 IV to be changed to Phenergan 25 mg IM every 3-4 hours PRN. This alteration was made at the request of the nurse because since the patient did not have an IV; the nurses had been giving Phenergan IM.

Mrs. Hill received Demerol 100 mg at 8:25 PM and 11:25 PM. Phenergan 25 mg was given along with it each time. No nausea was present. The patient's mother noticed her daughter was becoming increasingly lethargic and unable to stay awake as the evening continued. Mrs. Hill was mumbling incoherently around midnight. At 2:25 AM, exactly 3 hours after the last Demerol and Phenergan injection, and in the absence of any complaints of pain or nausea, the nurse took a syringe with Demerol and Phenergan to the patient's bedside. She noticed the patient had shallow respirations; a few minutes later Mrs. Hill stopped breathing. A resuscitation team rushed to the bedside. Mrs. Hill's breathing and heart beat were restored; she was transferred to ICU and placed on a ventilator. Testing performed a few hours after the arrest revealed the patient had toxic levels of Demerol in her blood. The healthcare providers investigated a

variety of causes to determine the origin of the patient's arrest and reached the inescapable conclusion that the patient had arrested from Demerol intoxication. EEGs showed an absence of brain function. Mrs. Hill was removed from life support four days later. She was in her 30s when she died. The family's lawsuit against the nurses and resident was settled out of court.

LESSONS LEARNED

What lessons can we learn from this young woman's death? Tragically, it was the conscientious desire to keep the patient comfortable that led to the administration of too much Demerol and Phenergan. The patient's nurses testified they wanted to "stay on top" of the patient's pain. Unfortunately, this resulted in administering pain relieving medication to Mrs. Hill when there were no complaints of pain. A variety of tools are in place to assess the pain levels of specific populations, such as children, adults, and the elderly. Many facilities' staff ask cognitively intact adults to rate their pain on a scale from 0-10. Although the form in the patient's medical record prompted the nurses to ask the patient to identify her level of pain, they did not do so. Documentation of pain levels before administration of pain relievers helps to substantiate the need for the medication. Documentation of pain levels verifies the effectiveness of the medication after its administration. Failure to achieve satisfactory levels of pain relief should stimulate a change in the plan of care. Additionally, some nurses are recording the patient's perception of what would be satisfactory level of pain, since it may not be possible to relieve all pain.

Maximum doses of Demerol and Phenergan were given to Mrs. Hill without regard to her slight frame, and without her asking for pain medication. The hazards of Demerol have been identified in recent years. Many acute care facilities have stopped using Demerol due to the risk of the accumulation of normeperidine, which is a toxic metabolite of Demerol excreted through the kidney. In patients with normal renal function, normeperidine has a half-life of 15 to 20 hours; this time is extended greatly in elderly individuals and patients with impaired renal function. Normeperidine can cause a respiratory arrest event in young, otherwise healthy patients given sufficiently high doses.

Another problem was that the headache was not recognized as a side effect of the Demerol. Demerol can also cause confusion, agitation, dizziness, and hallucinations, especially in the elderly. Symptoms of an overdose include extreme drowsiness, muscle weakness, confusion, cold and clammy skin, pinpoint pupils, shallow breathing, slow heart rate, fainting, or coma. The nurse did not find it concerning that the patient was unable to carry on a coherent conversation as the evening wore on.

Mrs. Hill's slowly declining blood pressure was not recognized as a sign of oversedation. The nurse caring for her testified that she was aware of the vital signs that were recorded by the nursing assistant, but thought they reflected a lessening of pain and anxiety as the Demerol took effect. The culmination of the gaps in assessment, along with maximum doses of Demerol and Phenergan, resulted in the patient's death.

TAKE HOME LESSONS

1. As an opiate/narcotic, Demerol is in the category of highest risk drugs. Its use to manage postoperative pain is no longer state of the art. More progressive facilities have eliminated its use except to treat shivering.
2. Review the medical record of a patient who has been potentially oversedated to determine if the nurses were evaluating the patient's level of pain and describing the patient's level of sedation.
3. Review the record to determine if the frequency and dose of the opiate was administered as ordered.
4. Review vital signs recorded by ancillary staff. Look for patterns of changes in vital signs, such as declining blood pressure before the oversedation was detected.
5. Review the hospital protocols on the use of Narcan, a drug that can reverse the effects of opiates. Determine if it was given in this case.
6. Recognize that these cases are very hard to defend.
7. Contact Med League for experts and screening of cases.

Reference

1. <http://www.mosbysdrugconsult.com/WOW/op024.html>