MODEL EXPERT OPINION #4

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Date

Investigator/Medical Consultant (requesting review)
Medical Board of California
Street Address (of District Office requesting review)
City, CA Zip

Re: John Doe, M.D.
Case: 17-2008-000000
Patient: Jane X. Smith

MATERIALS REVIEWED

1. Senior Investigator's report.
2. Memorandum from District Medical Consultant.
3. Consumer complaint from patient Jane X. Smith.
4. Dr. John Doe's summary of care involving patient Jane X. Smith.
5. Certified copy of patient Jane Smith's record from North South Diagnostic Medical Group (NSDMG) from January 2003 through July 2007.
6. Certified copy of two missing pages (June 25, 2006 & August 19.2006) of patient Jane X. Smith's medical records from NSDMG.
7. Certified copy of patient Jane X. Smith's medical records from EMT Services.
8. A CD digital recording of Dr. John Doe's interview conducted on 5-28-08.

SUMMARY OF CASE:

Patient Jane X. Smith was a 37 year-old female who underwent an MRI study of her left shoulder at NSDMG under the direction of subject physician Doe on 1-17-07.

Patient Smith had previously undergone an MRI study at the same facility on 8-28-06 and at that time had completed a pre-scan patient evaluation indicating that she was subject to panic episodes and had some level of claustrophobia and anxiety. Based on the clinical history, she was pre-medicated with 7.5 mg. of po Valium, prescribed by an attending radiologist for purposes of light sedation for the MRI study of 8-28-06. That study performed on 4-13-06 of the lumbar spine was completed with the patient's anxiety level measured as a 2/10 during the study.

The patient returned to the same facility on 1-17-07 for an MRI of the shoulder and she again completed a pre-scan evaluation indicating her history of some claustrophobia and anxiety. The patient was noted to be 5 ft 6 in tall and weighed 150 lbs and she otherwise had an unremarkable past medical history except for current shoulder pain and previous low back pain. She was on no maintenance medications and did not routinely use benzodiazepines

Because of the claustrophobia history the clinic nurse presented the pre-scan patient evaluation to subject physician Doe who was the attending radiologist at the NSDMG facility that day. Although the patient had been previously seen at that same facility there was no indication made on the pre-scan patient evaluation or history sheet of this patient having a previous MRI performed at the facility.

Dr. Doe, in his recorded physician interview on 5-28-08, confirmed he prescribed an oral dose of 20 mg. of Valium for purposes of sedation during the MRI study. He acknowledged that he was not aware the patient had been previously seen at the facility or that 7.5 mg. of Valium was previously prescribed and was highly effective for controlling the patient's anxiety. Dr. Doe confirmed that he did not physically examine or interview patient Smith before reaching a decision to prescribe 20 mg. of Valium.

Following the administration of the 20 mg. of Valium and before the MRI could be completed, patient Smith was removed from the scanner due to acute respiratory depression necessitating the administration of intravenous pharmacological agents including Romazicon, Narcan, D50W along with IV infusion and airway management with oxygen. EMTs were called and the patient was transported to the local community hospital for further care and observation.

MEDICAL ISSUES:

1. Initial evaluation of patient Smith prior to prescribing a benzodiazepine.

- **Standard of Care:**

The standard of care for a radiologist prescribing a premedication to a patient requires that the

radiologist review the relevant medical record and then determine the safety of prescribing medication. This includes reviewing patient health history forms, pre-scan patient evaluations, and past treatment records relevant to the procedure being performed. It is not uncommon for the above to be reviewed without interviewing or seeing the patient.

- Analysis:

Dr. Doe did review the patient's pre-scan evaluation and nurses documented history. He was not aware the patient had a previous MRI at NSDMG and had been medicated with 7.5 mg. of Valium in 2006 with good results. Had Dr. Doe had access to the pre-medication history from the 2006 MRI he stated he would have used the same dosage. Review of the previously MRI report of the lumbar spine failed to indicate that any presedation medication was used. Therefore Dr. Doe relied on the current pre-scan evaluation & nurse's history and determined that because the patient indicated her level of claustrophobia was a 9/10 he would treat the patient with Valium prior to the MRI study.

- Conclusion:

Although Dr. Doe could have been more diligent in trying to determine if the patient had previously been pre-medicated for an MRI this does not reach a level of departure from the standard of care.

2. Use of 20 mg. of Valium for premedication dosing.

- Standard of Care:

The utilization of light sedation for purposes of successful MRI scanning is a common occurrence among radiologists on a daily basis and oral Valium is most commonly used with the dosage being predicated on the individual patient's clinical state, past history and level of anxiety. The dosage of po Valium recommended for adults ranges between 2 to 10 mg. for anxiety. Realizing the inherent limitations of administering light sedation in an outpatient setting, physician determination of a safe but effective dosing is as much an acquired clinical skill as it is a pharmacological science. One of the areas of concern with the use of oral sedatives in the outpatient setting is that there is often limited clinical information available for the physician upon which to base a treatment plan. Overall patient wellness, age, body habitus, and history of previous or recent benzodiazepam usage becomes of increased importance in making an informed decision about proper dose. The rule of thumb in such a matter is to use the most minimal dosage practical to achieve the desired effect of sedation. In this instance, community standard would

require the use of somewhere between 2 and no more than 10 mg. of po Valium. In over twenty years of supervising MRI scans I have never prescribed, heard or seen anyone prescribe 20 mg. as a single dose for outpatient sedation.

- Analysis:

Dr. Doe did in fact authorize administration of 20 mg po Valium for this patient who had no routine use of benzodiazepines and had previously done well with 7.5 mg. of Valium for a similar procedure in 2006.

- Conclusion:

There was a simple departure from the standard of care when Dr. Doe prescribed 20 mg. of Valium which clearly over-sedated the patient and caused significant respiratory depression. Had Dr. Doe been made aware that the patient previously had done well with 7.5 mg. of Valium as a pre-medication for an MRI his prescribing of 20 mg. would have represented an extreme departure from the standard of care.

3. Level of emergent treatment rendered by Dr. Doe.

- Standard of Care:

The standard of care requires a radiologist to cease an elective diagnostic study if a patient is developing significant change in vital signs or life-threatening symptoms. In the case of respiratory depression, this requires removing the patient from the MRI scanner and providing an airway with oxygen and establishing an IV. In cases of suspected overdose of a benzodiazepine, it requires attempts to reverse that medication, establish an IV and giving other medications if the patient is unresponsive. It also requires activating 911 for EMT transport to a emergency department.

- Analysis:

I fully agree with the emergent treatment rendered by Dr. Doe once Ms. Smith developed respiratory distress. He appropriately removed the patient from the MRI scanner, established an oral airway and oxygenated the patient. 911 was activated, an IV was started and appropriate medications to reverse the benzodiazepine over-dose were immediately administered.

♦ **Conclusion:**

There was no departure from the standard of care in Dr. Doe's treatment of patient Smith's respiratory depression.

(Signature) Ray Roenten, M.D. (Date) 1/5/09
RAY ROENTEN, M.D.