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STATE OF WISCONSIN BEFORE THE MEDICAL EXAMINING BOARD

IN THE MATTER OF THE DISCIPLINARY	:	
PROCEEDINGS AGAINST	:	FINAL DECISION
	:	AND ORDER
JAMES J. LOGAN, M.D.,	:	LS0306254MED
RESPONDENT.	:	

The State of Wisconsin, Medical Examining Board, having considered the above-captioned matter and having reviewed the record and the Proposed Decision of the Administrative Law Judge, makes the following:

<u>ORDER</u>

NOW, THEREFORE, it is hereby ordered that the Proposed Decision annexed hereto, filed by the Administrative Law Judge, shall be and hereby is made and ordered the Final Decision of the State of Wisconsin, Medical Examining Board.

The rights of a party aggrieved by this Decision to petition the department for rehearing and the petition for judicial review are set forth on the attached "Notice of Appeal Information."

Dated this 14th day of September, 2004.

Alfred Franger Member of the Board Medical Examining Board

STATE OF WISCONSIN BEFORE THE MEDICAL EXAMINING BOARD

IN THE MATTER OF THE DISCIPLINARY	:		
PROCEEDINGS AGAINST	:		
	:	LS0306254MED	
JAMES J. LOGAN, M.D.,	:		
RESPONDENT.	:		

PROPOSED DECISION AND ORDER

The parties to this action for purposes of §227.53, Wis. Stats., are:

James J. Logan, M.D. 1040 Division Street Mauston, WI 53948

Medical Examining Board

P.O. Box 8935 Madison, WI 53708-8935

Department of Regulation & Licensing Division of Enforcement P.O. Box 8935 Madison, WI 53708-8935

PROCEDURAL HISTORY

A hearing in the above-captioned matter was held on March 29-April 1, 2004, before Administrative Law Judge Jacquelynn B. Rothstein. The Division of Enforcement appeared by attorney Gilbert C. Lubcke. Attorney Patricia J. Epstein appeared on behalf of James J. Logan, M.D.

Based on the entire record in this case, the undersigned administrative law judge recommends that the Medical Examining Board adopt as its final decision in this matter the following Findings of Fact, Conclusions of Law, and Order.

FINDINGS OF FACT

1. James J. Logan, M.D., (dob 12/02/52) is duly licensed to practice medicine and surgery in Wisconsin (License #24202). His license was first granted on October 23, 1981. Dr. Logan specializes in family practice.

2. Dr. Logan's most recent address on file with the Medical Examining Board is 1040 Division Street, Mauston, Wisconsin.

3. Dr. Logan practices medicine at the Hess Memorial Hospital and the Mile Bluff Clinic in Mauston, Wisconsin, and did so at the time of Mr. Slater's treatment.

4. Arthur Slater (dob 6/18/37) had a medical history that included: Type II insulin dependent diabetes, hyperlipidemia, hypertension, congestive heart failure, chronic obstructive pulmonary disease (COPD), arthritis, coronary artery disease, and obesity. He had also been a smoker for approximately thirty-five years. Mr. Slater took the following medications: Hyzaar, Klor-Con, Furosemide, Lipitor, Centrum, Glucophage, over-the-counter garlic, NPH insulin, regular insulin, a triple medicated nebulizer, Albuterol, Percocet, Vicodin, ferrous gluconate, and oxygen. Mr. Slater had a significant family history of heart disease. Two of his brothers and one of his sisters died from heart disease, as did his father. None lived to age sixty-four.

5. On November 14, 2001, health care practitioners at the Mile Bluff Clinic prescribed Lipitor 20 mg p.o. q.d. for Mr. Slater.

6. On or about January 30, 2002, Mr. Slater underwent right knee arthroplasty. In the weeks after his discharge from the hospital following his knee surgery, Mr. Slater experienced shortness of breath, weight gain, and peripheral edema. He did not have any fevers or chest pain. For approximately two weeks following his knee surgery, Mr. Slater's ambulatory status continued to improve. Thereafter, he experienced a deterioration in his ability to ambulate and became more sedentary.

7. On March 6, 2002, at approximately 3:44 a.m., Mr. Slater was admitted to the emergency room at Hess Memorial Hospital complaining of difficulty breathing, shortness of breath, diaphoresis, and a recent history of chest pain. Mr. Slater reported awakening at 3:00 a.m. with chest pain, but indicated that he was no longer experiencing the chest pain at the time of his admission to the emergency room. Upon admission, Mr. Slater's blood pressure was 215/106, his pulse was 130, his respiratory rate was 32, and his oxygen saturation level was 89%.

8. The emergency room physician's evaluation disclosed 2+ edema in Mr. Slater's extremities. The chest x-ray was consistent with chronic changes but with no acute findings. The EKG showed sinus tachycardia with no acute S-T changes but with evidence of anterior and inferior infarcts of undetermined ages. The cardiac enzymes determined from blood drawn at 4:05 a.m. on March 6, 2002, showed an elevated creatine phosphokinase (CPK) of 4,253 with a CKMB value of 24.3 and a %CKMB of 0.6. The Troponin I was 0.3. The Myoglobin was elevated at 1,357.2. The blood urea nitrogen level

(BUN) was elevated at 32. The creatinine was 0.8, the sodium was 136, and the potassium was 4.8.

9. The emergency room physician initiated a cardiac protocol and admitted Mr. Slater to Hess Memorial Hospital. The admitting diagnoses were dyspnea, COPD, chest pain, and possible rhabdomyolysis. Mr. Slater weighed 292 pounds at the time of his admission to the hospital. The emergency room physician ordered a follow-up EKG, cardiac monitoring, and regularly obtained vital signs, but did not order the continuation of the Lipitor that Mr. Slater had been taking.

10. Dr. Dennis K. Ness assumed responsibility for the management of Mr. Slater on March 6, 2003, following his admission to Hess Memorial Hospital.

11. Dr. Ness obtained a CT scan of Mr. Slater's chest to rule out a pulmonary embolism. The CT scan was negative for a pulmonary embolism.

12. Dr. Ness also ordered and obtained serial cardiac enzymes. The CPK level remained significantly elevated but the CKMB and the %CKMB remained in the normal range.

13. On March 7, 2002, Dr. Ness concluded that Mr. Slater's serial cardiac enzymes were negative and that he had not experienced an acute myocardial infarction. Dr. Ness's examination of Mr. Slater on that same date revealed that the patient was afebrile with a pulse of 65, a respiratory rate of 32, a blood pressure of 133/72, and a weight of 294.4 pounds. Mr. Slater's heart had a regular sinus rhythm and his lungs were clear to auscultation and percussion, and his extremities showed no edema. Dr. Ness therefore concluded that Mr. Ness may have been ready for discharge on March 8, 2002.

14. On March 8, 2002, Dr. Ness's examination disclosed that Mr. Slater had become more dyspneic and his weight had increased to 298 pounds. His blood pressure ranged from 154/86 to 172/83. Mr. Slater's heart was in regular sinus tachycardia without murmurs with a pulse ranging from 99 to 120. His lungs were clear to auscultation with some tachypnea, and his extremities showed some trace of pretibial edema. Dr. Ness believed that the dyspnea was probably secondary to the COPD, and that Mr. Slater showed a borderline increase in congestive heart failure. Dr. Ness continued to manage Mr. Slater's cardiac related conditions with aspirin, a nitroglycerine patch, IV fluids, and Lasix.

15. On March 8, 2002, Dr. Ness resumed administration of Lipitor10 mg p.o. q.d.

16. On March 8, 2002, at 10:40 p.m., a specimen was obtained from Mr. Slater, which revealed an elevated CPK level of 2,957. The CPK level from a specimen obtained at 6:35 a.m. on March 9, 2002 showed an increase to 3,375.

17. Dr. Ness examined Mr. Slater on March 9, 2002. Mr. Slater reported some right sciatica but without numbness in his legs. He further reported that his muscles felt generally weak. Mr. Slater was dyspneic with ambulation. His lungs were clear to auscultation and the chest x-ray taken on March 8, 2002, was read as stable with no pulmonary infiltrates. His weight was 296.6 pounds.

18. Following his examination of Mr. Slater on March 9, 2002, Dr. Ness concluded that Mr. Slater had COPD, controlled congestive heart failure, hyponatremia, obesity, hyperlipidemia, rhabdomyolysis, right sciatica, borderline control of diabetes mellitus, and arteriosclerotic heart disease. Based upon the increase in Mr. Slater's CPK level from 2,975 to 3,375 over the 24 hours after which he had resumed the Lipitor, Dr. Ness concluded that the rhabdomyolysis was probably secondary to administration of the Lipitor.

19. On March 9, 2002, Dr. Ness discontinued the Lipitor, decreased the Lasix to 40 mg p.o. q.a.m., and ordered a 1500 cc/24 hour fluid restriction.

20. On March 10, 2002, Mr. Slater continued to complain of sciatica and aches in his neck and perithoracic muscles. His extremities showed trace pretibial edema and his weight increased to 298 pounds; his lungs remained clear to auscultation. Dr. Ness believed that he needed to keep Mr. Slater well hydrated to treat the rhabdomyolysis while regulating fluid management in consideration of his congestive heart failure.

21. On March 11, 2002, Dr. Ness noted that Mr. Slater's systolic blood pressure had dropped to about 70 but had

returned to the 90s at the time of his (Dr. Ness's) visit. Mr. Slater's lungs remained clear, his extremities showed a trace of pretibial edema while his weight had increased to 301.1 pounds. His CPK level remained elevated at 3,922.

22. On March 11, 2002, Dr. Ness stopped the administration of the Lasix to Mr. Slater.

23. On March 12, 2002, Mr. Slater's lungs remained clear to auscultation but his weight had increased to 301.7 pounds. His CPK level was elevated at 4,449. He also had BUN of 62, a creatinine of 1.0, a sodium of 122, and a potassium of 5.7.

24. On March 12, 2002, Dr. Ness discontinued the fluid restriction that Mr. Slater had been on and ordered IV normal saline at 50 cc/hour.

25. On March 13, 2002, Mr. Slater had intermittent dyspnea and his weight was increased to 302 pounds. He had a CPK of 3,817, a BUN of 57, a creatinine of 0.9, a sodium of 125, and a potassium of 5.3. Dr. Ness continued the IV of normal saline at 50 cc/hour.

26. On March 14, 2002, Mr. Slater's lungs remained clear but his weight had increased to 304.8 pounds. His CPK level was 4,062, his BUN was 47, his creatinine was 0.8, his sodium was 124, and his potassium was 5.5. Dr. Ness ordered continuation of the IV fluids.

27. On the evening of March 15, 2002, Mr. Slater had become progressively more dyspneic and his weight had increased to 311.3 pounds. His lungs showed a few basilar rales but no wheezes or rhonchi. The chest x-ray demonstrated prominence of the pulmonary vascularity but no overt failure and no infiltrates. Mr. Slater had a CPK level of 6,086, a BUN of 39, a creatinine of 0.8, a sodium of 123, and a potassium of 5.6. Dr. Ness was of the opinion that Mr. Slater showed borderline congestive heart failure with hyponatremia and hyperkalemia. Dr. Ness initiated a 2,000 cc/24 hours fluid restriction, decreased the IV, and gave the patient Lasix 40 mg IV.

28. On March 16, 2002, Mr. Slater reported aching in his right leg after having fallen twice while ambulating on the previous evening. His lungs had a few basilar rales, but his shortness of breath had improved after he received the Lasix. He had edema in his lower abdominal wall and 1+ to 2+ pitting pretibial edema. His CPK level was 6,854, the BUN was 34, the creatinine was 0.8, the sodium was 121, and the potassium was 5.5. Dr. Ness renewed his order for the 2,000 cc/24 hours fluid restriction and ordered Lasix 40 mg to be administered on March 16, 2002, and then q.a.m.

29. On March 17, 2002, Dr. Ness left for a vacation, and James J. Logan, M.D., took over the management of Mr. Slater.

30. On March 17, 2002, the CPK level was 13,690, the creatinine was 0.8, the sodium was 123, and the potassium was 4.7. Mr. Slater's blood pressure was 115/90, his pulse rate was 130, and his respiratory rate was 32.

31. On March 17, 2002, Dr. Logan was of the opinion that the patient was in congestive heart failure. Dr. Logan's diagnoses included hyponatremia, anasarca, and congestive heart failure.

32. At Dr. Logan's first visit with the patient on March 17, 2002, he ordered furosemide 40 mg IV at noon and again at 6:00 p.m. He also ordered 21 cc/hour of 5% hypertonic saline for 24 hours and a 1,000 cc/24 hours fluid restriction.

33. When Dr. Logan saw Mr. Slater for the second time on March 17, 2002, he (Mr. Slater) had become increasingly short of breath and was tachypneic. On examination, his lungs showed inspiratory rales. His oxygen saturations had dropped into the 80s on 3 liters of oxygen. Mr. Slater was tachycardic with a pulse rate of 110.

34. At Dr. Logan's third visit with the patient on March 17, 2 002, Mr. Slater had become increasingly short of breath and was anxious. He had 3+ pitting edema over his arms and legs and weighed 311 pounds. Dr. Logan ordered Xanax and furosemide 40 mg IV.

35. Thereafter, the nursing notes for March 17, 2002, indicate that Mr. Slater was alert and oriented, and that his urine output had increased to 2150 cc's. That same evening, Mr. Slater was conversant with family members and was not

experiencing any shortness of breath. He was later observed to be sleeping peacefully.

36. On March 18, 2002, at approximately 5:10 a.m., Mr. Slater's daughter found him pulseless and not breathing. He was unable to be resuscitated.

37. No autopsy was conducted on Mr. Slater.

CONCLUSIONS OF LAW

1. The Medical Examining Board has jurisdiction in this matter pursuant to §448.02, Wis. Stats.

2. The evidence does not establish that James J. Logan engaged in unprofessional conduct contrary to s. 448.02 (3), Wis. Stats.

3. The evidence does not establish that James J. Logan engaged in conduct that tended to constitute a danger to the health, welfare, and safety of a patient contrary to s. MED 10.02 (2) (h), Wis. Admin. Code.

<u>ORDER</u>

NOW THEREFORE IT IS HEREBY ORDERED that this matter be DISMISSED.

OPINION

On March 18, 2002, Arthur Slater, age sixty-four, died after having been hospitalized at Hess Memorial Hospital in Mauston, Wisconsin. Mr. Slater was originally admitted to the hospital on March 6, 2002, after complaining of difficulty breathing, shortness of breath, diaphoresis, and a recent history of chest pain. At the time of his admission, however, he was no longer experiencing chest pain. Nevertheless, a chest x-ray was taken and while chronic changes were noted, there were no acute findings. An EKG showed sinus tachycardia with no acute S-T changes but with evidence of prior anterior and inferior infarcts of undetermined ages.

Mr. Slater had an extensive medical history that included: Type II insulin dependent diabetes, hyperlipidemia, hypertension, congestive heart failure, chronic obstructive pulmonary disease (COPD), coronary artery disease, arthritis, and obesity. He took the following medications for those conditions: Hyzaar, Klor-Con, Furosemide, Lipitor, Centrum, Glucophage, over-the-counter garlic, NPH insulin, regular insulin, a triple medicated nebulizer, Albuterol, Percocet, Vicodin, ferrous gluconate, and oxygen. Mr. Slater also had a significant family history of heart disease. Two of his brothers and one of his sisters died from heart disease, as did his father. None lived to age sixty-four.

During Mr. Slater's hospital stay and in addition to his existing chronic conditions, his weight increased, he suffered from rhabdomyolysis, and hyponatremia. While he was hospitalized, Dr. Logan's treatment of him is alleged to have fallen below the minimum standard of care. More specifically, it is alleged that Dr. Logan wrongly administered five percent hypertonic saline to Mr. Slater and that it created unacceptable risks to his health, welfare, and safety. According to the complaint, in order for Dr. Logan to have avoided those unacceptable risks, he should not have administered the saline. Such assertions are untenable.

John H. Morledge, M.D., a physician with over forty-five years of clinical experience in the areas of internal medicine and cardiology, and who is board certified in internal medicine and board eligible in cardiovascular disease, testified on behalf of Drs. Ness and Logan. Dr. Morledge has been published extensively in various medical journals on a wide-range of cardiac related topics and has impeccable credentials. He is a professor at the University of Wisconsin Medical School, and is also a cardiologist with staff privileges at both the University of Wisconsin Hospital and Clinics and Meriter Hospital. As such, he has an excellent understanding of the problems associated with the management and treatment of congestive heart failure. Although he once had a consulting role as a cardiologist at Hess Memorial Hospital, where he would occasionally have incidental contact with Drs. Logan and Ness, he has not done any consulting there for the past five years. Nonetheless, it was suggested that because of Dr. Morledge's prior role as a consultant at Hess Memorial Hospital, he would be biased in favor of Drs. Logan and Ness, and that his testimony would therefore reflect such bias. There was not one scintilla of evidence to indicate that Dr. Morledge was in any way biased in his assessment of the diagnosis and treatment provided by either Dr. Ness or Dr. Logan. His opinions were scientifically and factually based, and did not reflect any bias on his part. He was a competent and credible witness whose opinions were beyond reproach.

With respect to the treatment provided to Mr. Slater by Dr. Logan, that is, the administration of the hypertonic saline, Dr. Morledge testified about it as follows:

- Q: (by Ms. Epstein) Are you familiar with the use of or the indications for hypertonic saline?
- A: I think so.
- Q: And is that a medication that you yourself have used over the years?
- A: Yes.
- Q: And how often is it something that you would use?
- A: Probably no more than once a year, once every couple years.
- Q: And is the standard in using that medication to wait until a patient is seizing or in a coma before you administer?
- A: No. If you wait 'til you're having convulsive seizures, it's extremely low and you have to -- the drugs we use to control seizures are not very effective in that setting. So you don't like -- you don't like to get to that point. It's really -- in other words, if you know you've got a progressively falling sodium level and you know the situation is such that it's not going to correct itself, you don't want to have that patient progress to either coma or convulsions because you've in a sense gone over the line; and with the family sitting there, you know, "Can we do something, Doctor?" So that's a situation in which you judiciously use -- hypertonic sodium chloride is generally employed, but well before you get to that point.
- Q: Okay.
- A: I think most clinicians, unless it's like the example of a healthy young person who had just gotten water intoxicated, would tend to use hypertonic sodium chloride as the sodium level got down to the 120s and you see for other reasons you're not going to correct it by other means.
- Q: There's been testimony in the case that the use of hypertonic saline is contraindicated in the setting of congestive heart failure. Do you agree or disagree with that?
- A: It's -- let's put it this way. It has to be used cautiously and carefully and in small volumes. But if you're in a situation where you're not getting diuresis by any other means and the sodium is that low and there are good reasons to believe it's becoming strongly symptomatic, and there is a paper written some years ago by an expert in the field. The title of his paper is called "You're damned if you do and you're damned if you don't." We face this all the time in medicine. We have some difficult perplexing problems we have to balance with what we hope is going to happen.
- Q: And have you yourself ordered hypertonic saline in patients in congestive heart failure?
- A: Yes. The two most common settings to do it are in patients with, as this gentleman, multisystem disease, you're not getting the effect from your diuretics, the sodium is progressively getting lower. And the other system is an unusual kidney disease called nephrotic syndrome, N E P H R O T I C, where you get a whole lot of fluid retention not due to heart disease but due to the peculiar form of kidney disease that lets a lot of water and sodium to leak out. And sometimes their sodium levels get real low and they're waterlogged and they've got kidney disease so you have to consider using it. Those are probably the two most common settings.
- Q: And did you review Dr. Logan's order for that medication?
- A: Yes.
- Q: And what is your opinion on how much he ordered and --?
- A. He ordered 21 cc's of 5 percent sodium chloride to be given over a 24-hour period. Now, that comes to about 500 cc's of total fluid. That's about one pint, okay. And then in addition –
- Q: Is one pint of --
- A: Of water.
- Q: Of water?
- A: Yeah, yeah. And then the 5 percent of it being sodium chloride, think of it as table salt, 5 percent, 500 cc's turns out to be 25 grams of sodium chloride.

- Q: And how much is that?
- A: Okay. A level tablespoon of salt would be about 30 grams. So 25 grams of salt over 24 hours is roughly five teaspoons, five teaspoons is 5 cc's.
- Q: 5 teaspoons over a period of 24 hours?
- A: That's right. And there are a number of standard textbook references as to a little formula you calculate how to do this; and when you use the formula in there, it always comes out about like this. And most of us, since we don't do it very often, we kind of look in the book and say, okay, I'm -- that's what I'm going to use, you know. So the manner of the use and the -- it was given cautiously and slowly. 20 cc's an hour is four teaspoons an hour intravenously. And the hope is we'll raise the sodium level up into the high 120s or low 130s and then make the kidneys begin to be responsive to the diuretic.
- Q: Okay. Are you comfortable with the dosage that Dr. Logan ordered?
- A: Yes.

(Tr. at 562-66).

In addition to Dr. Morledge, Dr. John Beasley also reviewed Mr. Slater's medical records and offered his opinion as to Dr. Logan's treatment. Dr. Beasley is a board certified family practice physician and professor emeritus at the University of Wisconsin-Department of Family Medicine, and on the staff of the University of Wisconsin Medical School. He concurred with Dr. Morledge that administering hypertonic saline is not something that is commonly done, but is used when "you're backed into a corner and you've been trying other reasonable things as was done here and they haven't worked as well as you want them." (Tr. at 738). He also agreed that Mr. Slater's condition seemed to improve following the administration of the saline. Dr. Beasley further opined that while the administration of hypertonic saline must be done with caution, it is not contraindicated in the presence of congestive heart failure. Moreover, he believed that the dosage was given at a reasonable rate and that under similar circumstances, he too might have ordered the same medication.

As the following excerpt shows, Dr. Morledge also believed that Mr. Slater responded positively to the administration of the saline and that the standard of care employed by Dr. Logan in this case was appropriate:

- Q: (by Ms. Epstein) There has been some testimony, Doctor, that after Dr. Logan had cared for the patient, that he seemed to be doing better, that he was less short of breath, conversing, and that the nurses at least had noticed improvement and that he was visiting with family members and the like. Do you think that improvement in the patient's condition may have been attributable to the measures that Dr. Logan took?
- A: I think when you have what was a progressive downhill course over the few days leading up to that and then the -- what appeared to be improvement at the bedside, about the only thing that was changed was the hypertonic sodium chloride and the diuretic adjustment, so forth; so I think that's a reasonable assumption.
- Q: And do you think the administration of that medication contributed to the patient's unfortunate death?
- A: No.
- Q: Do you hold that -- do you hold all of your opinions to a reasonable degree of medical certainty?
- A. Yes. If I could just expound a little --
- Q: Sure.
- A: -- on hypertonic saline risks. The measured risk is in a totally different setting, and that's the relatively healthy person who gets what's called heat exhaustion where they're out on an extremely hot day, they have not taken their salt tablets, they're sweating profusely and they just collapse, come close to losing consciousness, they're hauled in the emergency room and their sodium is 110, 118, that happens. Not so much in our climate. Pretty common down south. So if you give hypertonic sodium chloride to them, and that sometimes has to be done, but if you give it too rapidly and too vigorously, a rare problem can happen which is called Pontine necrosis. The brain stem at the base of the brain where the breathing center is and all the vital systems of the brain for some strange reason undergoes what's called demyelination. The insulation around the nerves in that part of the brain disappears and they die of that fatal complication. That's almost exclusively seen in too vigorous a replacement of hypertonic sodium chloride in a kind of a low sodium that

comes up very abruptly. It seldom ever happens in a setting we're talking about here where there is a gradual onset over days and the replacement is cautious and slow as it's done here.

- Q: Do you believe Dr. Logan met the standard of care and was appropriate in his management of his patient?
- A: Yes, I do.

(Tr. at -572-74).

This matter was further reviewed by Dr. Timothy Bjelland, a board certified family practice physician and a member of the quality assurance committee at Hess Memorial Hospital. Dr. Bjelland concluded that given the symptomatic hyponatremia that Mr. Slater had, the administration of the hypertonic saline along with the fluid restriction and diuretics that were ordered at the same time were appropriate. He also agreed that such a medication was not contraindicated for a patient such as Mr. Slater. (Tr. at 657-60).

Dr. Logan's own testimony reveals his thought process in deciding to administer the saline to Mr. Slater. Regarding that issue, he testified as follows:

- Q: (by Ms. Epstein) You've heard criticisms that Dr. Reding has made regarding your use of hypertonic saline in this case?
- A: I have.
- Q: And first of all, approximately how many times would you estimate you've used that medication?
- A: I would have to say somewhere in the vicinity of about eight times.
- Q: Okay. And I think we have all agreed and we've heard from the physicians that it's certainly not an everyday medication?
- A: That is correct.
- Q: And in the prior occasions that you have used that medication, what has your experience been in terms of those patients' response to the medication?
- A: Sometimes they do not respond to it.
- Q: And have there been other occasions where they have responded to it?
- A: Yes.
- Q: And on the occasions where they have not responded to it, what do you mean by that?
- A: In other words, they've gotten worse and they have died.
- Q: Okay. And have you ever had patients who have not seemed to respond either in a positive or negative way?
- A: That's correct.
- Q: What's your assessment of how this patient responded to the administration of the medication?
- A: Very positive.
- Q: And you're basing that on what?
- A: I'm basing it on the fact that this patient's confusion improved, the output improved, the patient is resting comfortably in the reclining chair, the breathing is non-labor, the skin is warm and dry, anxiety has been essentially resolved. Unlike previous days where he was going off the tab alarm, he's resting comfortably, his confusion is gone, he's responding to family members, he's alert. All those.
- Q: And was that an improvement from the condition that the patient had been in before the nurses called you in?
- A: Yes.
- Q: You heard Dr. Morledge this morning describe hypertonic saline as often a last ditch effort. Would you agree with that characterization of use of that medication?
- A: Incredibly good. The damned if you do, damned if you don't scenario, yes.
- Q: The idea that you don't administer that medication until a patient is seizing or in a coma, what's your opinion about that statement?
- A: My opinion about that statement is the patient is going to be going -- by that time going to be recalcitrant to any anticonvulsive treatment because you have to give hypertonic saline slowly.
- Q: Did you give it slowly?
- A: I gave it slowly.

- Q: Okay. Did you weigh in your mind before ordering that medication the pros and cons of ordering it?
- A: I did.
- Q: And what do you recall going through your mind in deciding whether to order that medication?
- A: For the judicious use of hypertonic saline, several criteria needed to be met. Number one, a patent IV, you have to have a --
- Q: I think you talked about that on Monday?
- A: Right. Those are some of the very important. The fact the patient was in hypervolemic hyponatremia and so he's hyponatremic in the face of congestive heart failure, that's very, very important. This individual is potentially having a life threatening problem.
- Q: And let me just jump in here for one minute if I can; and in the prior patients that you ordered hypertonic saline for, have any of those patients also had congestive heart failure?
- A: Yes. But not all.
- Q: Okay. And the ones who had congestive heart failure for whom you ordered hypertonic saline, did some of those patients get better?
- A: Yes.
- Q: And I didn't mean to interrupt you. What else was going through your mind in terms of justifying your order for that medication?
- A: Yes. My whole issue was to improve his congestive heart failure. The fact that my note at 9 o'clock had revealed that I initially thought his confusion might be due to two items. I had the opportunity to talk to the nurses, tell them I need to get a patent IV in, we need to make sure about this. We've looked at the PRN medicines that he was on. He wasn't on that many. So I didn't feel that that was the cause. I can see in the record in the vital sign chart that his pulse ox. was 90 and 91 percent. He wasn't hypoxic. So it had to be from an alternative cause. And by con -- excluding the other issues, I felt -- and his diabetes was controlled as I mentioned in my note, so by exclusion, I was feeling that this gentleman was beginning to have symptomatic hyponatremia.

(Tr. at 707-11).

Dr. Rick Redding testified on behalf of the Complainant. In his testimony, Dr. Redding indicated that the administration of the hypertonic saline was not indicated for Mr. Slater's level of hyponatremia and that it was contraindicated by the presence of heart failure. He further testified that there must first be evidence of seizures or coma, along with a precipitous drop in the serum sodium level below 120 before hypertonic saline is utilized.

A low serum sodium level often is observed in patients with advanced heart failure and can be a poor prognostic sign. *See* HURST'S THE HEART (Valentin Fuster et al. eds., 10th ed. 2001) (Ex. 6). Acute hyponatremia requires immediate therapy with hypertonic saline. *See* CECIL TEXTBOOK OF MEDICINE (Lee Goldman et al. eds., 21st ed. 2000) (Ex. 5). Contrary to Dr. Redding's testimony, the medical literature does not support his position that there must also be seizures or coma in place before hypertonic saline is administered to a patient with hyponatremia, nor did any of the other experts agree with that assertion.

The testimony of Drs. Morledge, Beasley, and Bjelland was decidedly at odds with Dr. Redding's position regarding the administration of the hypertonic saline. Each of the three agreed that, under the circumstances, the use of the saline was appropriate and indicated. Equally important is Dr. Logan's own testimony which demonstrates that he did not order the hypertonic saline solution on a whim. But, rather, only when faced with the multiplicity of symptoms and conditions experienced by Mr. Slater did he decide that this was the prudent course to take.

While hindsight is often 20/20, there is no credible evidence that demonstrates that Dr. Logan's care and treatment of Mr. Slater fell below the minimally acceptable standards within the medical profession. The fact remains that Mr. Slater was an extremely ill man who had multi-system and multi-organ failure. His condition was undeniably complex. To his credit, however, Dr. Logan took appropriate and reasonable measures to treat him. But despite his efforts and those of Dr. Ness, Mr. Slater unfortunately died. His demise, however, bears no relationship to the treatment he received.

The professional judgments that Dr. Logan made in his treatment and care of Mr. Slater were well-considered and

appropriate. Simply put, he acted in a manner that was consistent with a patient who had multiple and complex medical problems. The fact that he ordered hypertonic saline does not mean that his conduct was sub-par or in any way fell below the minimal standard of care. Therefore, because there is insufficient evidence to show that Dr. Logan engaged in unprofessional conduct or that his actions constituted a danger to the health, welfare, and safety of this patient it is recommended that this matter be dismissed.

Dated at Madison, Wisconsin, this 8th day of June, 2004.

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Jacquelynn B. Rothstein Administrative Law Judge