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BEFORE THE ARIZONA MEDICAL BOARD

In the Matter of

DUANE G. MARTIN, M.D.

Holder of License No. **30487**
For the Practice of Allopathic Medicine
In the State of Arizona.

Board Case No. MD-05-0503A

**FINDINGS OF FACT,
CONCLUSIONS OF LAW AND ORDER**

(Letter of Reprimand)

The Arizona Medical Board ("Board") considered this matter at its public meeting on August 9, 2006. Duane G. Martin, M.D., ("Respondent") appeared before the Board for a formal interview with legal counsel Paul J. Giancola pursuant to the authority vested in the Board by A.R.S. § 32-1451(H). The Board voted to issue the following Findings of Fact, Conclusions of Law and Order after due consideration of the facts and law applicable to this matter.

FINDINGS OF FACT

1. The Board is the duly constituted authority for the regulation and control of the practice of allopathic medicine in the State of Arizona.

2. Respondent is the holder of License No. 30487 for the practice of allopathic medicine in the State of Arizona.

3. The Board initiated case number MD-05-0503A after receiving notification of a malpractice settlement involving Respondent's care and treatment of a sixty-three year-old male patient ("JM"). JM presented to an urgent care facility on February 14, 2003 with a three day history of shoulder pain radiating to the arms, upper chest and neck that was relieved with belching and unrelated to exertion. JM's chief complaint (recorded by a medical assistant) was "chest tightness." This complaint is not addressed in JM's medical record. Based on what Respondent described as trapezius muscle spasm and decreased cervical range of motion he diagnosed musculoskeletal pain and discharged JM on Motrin and Flexeril with follow-up in

1 fourteen to twenty-one days or sooner if JM's symptoms increased. Respondent conducted no
2 other work-up. On February 22, 2003, after a brief loss of consciousness with associated
3 shortness of breath, JM was hospitalized with an acute myocardial infarction ("MI") and a
4 recurrent wide complex tachycardia. JM developed a papillary muscle syndrome secondary to an
5 inferior wall myocardial infarction and, after a bypass graft and mitral valve replacement, went into
6 cardiogenic shock and died on February 24, 2003. A Board medical consultant opined that
7 Respondent's evaluation was inadequate in terms of history and especially in terms of laboratory
8 evaluation – no EKG was performed on the February 14, 2003 visit.

9 4. Respondent offered his heartfelt sympathy to JM's family and noted he reviewed
10 his care of JM countless times to ascertain what he could have done differently. Respondent
11 stated it was relatively easy to second-guess the medical care he rendered to JM, but requested
12 the Board review the events from his perspective in the examining room in an urgent care setting.
13 Respondent testified when he initially saw JM he knew the Medical Assistant had noted chest
14 tightness on the chief complaint portion of JM's record, and for this reason he carefully
15 questioned JM for cardiac signs and symptoms and asked JM about his pain in terms of location,
16 radiation, duration, any aggravating or relieving factors, whether he had any chest pain or
17 tightness and he denied those. Respondent also noted he asked JM about other cardiac-related
18 symptoms such as nausea, emesis, sweating, shortness of breath, or anxiety, none of which he
19 had and he also had no feelings of impending doom. Respondent testified he obtained a past
20 medical history with specific attention to risk factors for cardiovascular disease, asked about
21 hypertension, diabetes, high cholesterol, or prior MI and he had none. JM was not taking any
22 medications and Respondent also took a GI history.

23 5. Respondent testified he performed a complete physical examination and JM's vital
24 signs were normal and his heart rate and blood pressure were within normal limits. Respondent
25 noted JM's cardiovascular exam was also normal, his respiratory exam was fine, his head and

1 neck examination was remarkable for bilateral significant trapezius spasm and he had decreased
2 cervical range of motion. Respondent noted these findings were significant. Respondent testified
3 what impressed him most about JM was his affect – he had a calm demeanor with no obvious
4 signs of pain or discomfort. Respondent testified the history and physical was negative for
5 cardiac-related signs and symptoms and JM very specifically described his pain as localized into
6 his arms and upper thoracic region and not related to exertion. Respondent therefore opined that
7 a musculoskeletal disorder was the most likely cause of JM's pain. Respondent noted his
8 assessment was supported by depositions of JM's family members and the emergency room
9 record when JM was brought to the hospital on February 22 and reported no history of chest pain
10 or cardiac symptoms to his family or the emergency room physician and reported his
11 musculoskeletal symptoms were the result of heavy lifting a day or two prior to when Respondent
12 saw him at urgent care. Respondent noted JM reported he had returned to work on February 17
13 or 18.

14 6. Respondent noted JM's case was externally reviewed by one of the family practice
15 residency directors at a local hospital who, like Respondent, places great weight on a clinician's
16 history and physical examination, and he supported Respondent's care of JM. Respondent
17 testified he recognized in retrospect JM had an atypical cardiac presentation and he has learned
18 much from JM and research on atypical cardiac presentations. Respondent noted unfortunately
19 the literature states there is a twenty-five percent misdiagnosis rate of atypical MI's even in the
20 best hands, even including patients who have had EKGs. Respondent now performs EKGs on all
21 patients who present with any cardiac-related complaints or risk factors regardless of his index of
22 suspicion.

23 7. Respondent is board certified in otolaryngology, head and neck surgery and is no
24 longer working in urgent care. Respondent worked in otolaryngology for eighteen years before
25 working in urgent care. The Board asked if Respondent had experienced any cardiac patients in

1 his otolaryngology practice. Respondent testified he had not other than making consults in the
2 hospital on patients with head and neck disorders. The Board asked if prior to taking the position
3 in urgent care he took any refresher course or any continuing medical education on the types of
4 patients he might see in urgent care. Respondent testified he was required to take advanced
5 cardiac life support certification and that was related to interpreting EKGs, arrhythmias, and
6 workup of cardiac patients. Respondent testified that in his interview with the medical director of
7 the urgent care facility they specifically discussed the types of cases that would come in and the
8 director said he felt Respondent was qualified to do the work because in urgent care eighty to
9 ninety percent of everything that comes in is either in the areas of ears, nose, throat ("ENT"), or
10 orthopedics. Respondent testified they discussed internal medicine disorders and he told the
11 director he had previous experience working in the emergency room and had worked up and
12 treated cardiac patients in the past so they were both comfortable with his being able to work in
13 urgent care and do the job.

14 8. The Board noted in an emergency room one of the most common presenting
15 symptoms is atypical chest pain and asked if this was also true in urgent care. Respondent
16 testified urgent care is more like a primary care office, almost like a family practice office because
17 most people that come into urgent care are coming for the convenience because they cannot get
18 into their primary care physician. Respondent noted urgent care sees a lot of colds, upper
19 respiratory infections, and ear infections, and the mix of internal medicine disorders are not as
20 intense as what you would see in the emergency room, but people do come in with serious
21 internal medicine disorders. The Board directed Respondent to JM's medical record and noted
22 although Respondent testified he asked JM a lot of questions, they are not documented in the
23 record, and what is documented is that JM had three days of shoulder pain, now with radiation to
24 both arms, upper chest to neck. The Board also noted the record stated "belching relieves, no
25 relationship to exertion." The Board asked Respondent how it could tell from his record and

1 history of present illness that the pain is in the thorax when the record reads that the pain radiates
2 to the arms, upper chest and neck. Respondent noted there were other parts of his medical
3 history that are significant and if the Board looked in the "review of systems" it is noted as cervical
4 right and left shoulder and neck pain on that portion and "chest tightness" was written by the
5 Medical Assistant and if the Board looked above where he took the history it lists "shortness of
6 breath," "wheezing," "chest pain," and "heart racing" and Respondent struck those out because
7 there was none.

8 9. The Board asked if JM had any cardiac risk factors Respondent was aware of.
9 Respondent noted the primary cardiac risk factor was that he was male, sixty-three, and a
10 smoker. The Board asked about family history. Respondent noted JM's mother had MI. The
11 Board noted JM's mother died at fifty-four and this is a very strong cardiac history in a man
12 presenting with chest pain. The Board noted that in Respondent's opening statement he said he
13 was considering the possibility of a cardiac origin and asked JM a lot of questions and asked why
14 then did Respondent not get an EKG. Respondent did not get an EKG because when he took
15 JM's cardiac history in terms of his cardiac signs and symptoms, his answers were always
16 negative and he denied any chest pain or tightness and his history and physical kept pointing
17 Respondent back to a musculoskeletal cause of symptoms. The Board asked Respondent to
18 explain atypical presentations. Respondent noted that, according to the Gray study that was in
19 "Chest" 2004 patients with atypical cardiac presentations have pain that is not retrosternal in its
20 primary nature and they are considering extrathoracic causes of pain. The Board asked if
21 Respondent was aware cardiac pain can be atypical and that an EKG is needed. Respondent
22 noted the Board's point was valid, and he certainly was and is aware that there are atypical
23 presentations for cardiac disease.

24 10. The Board noted Respondent's expert who is a cardiologist, said JM's fate was
25 sealed prior to February 14 because he had probably sustained the event before and anything

1 Respondent would have done would not have changed anything and asked if Respondent agreed
2 with this statement. Respondent noted the expert was a cardiologist and he is not so he really
3 cannot comment on that, but his own subsequent research and reading suggested the expert did
4 have a valid point because he felt that JM had persistent pain for two days with the same degree
5 of complaints he had when Respondent saw him and the expert felt a pain lasting for forty-eight
6 hours is related to a MI and suggested JM's MI was complete. The Board asked if Respondent
7 had heard the term "acute coronary syndrome" and if he knew what it was. Respondent testified
8 he had and it is when a patient presents with symptoms and signs related to cardiac insufficiency,
9 oxygen debt that is severe enough it could lead to a MI. The Board asked if it was possible JM
10 was in the middle of an acute coronary syndrome. Respondent testified it certainly was possible.
11 The Board asked if it was possible that there were two issues with JM – the muscular spasm from
12 lifting something and chest tightness. Respondent testified that looking at the case in retrospect
13 that certainly is possible, however, based on his twenty years of experience in his specialty, JM's
14 physical findings were real and were significant.

15 11. Respondent has returned to his specialty of ENT. The Board asked how his
16 experience with JM has changed his medical practice. Respondent testified it has changed his
17 practice significantly because it has made him more acutely aware that for every disorder he
18 treats there are atypical or unusual presentations for every disorder he needs to be aware of that
19 and has to be very careful about looking for zebras when he hears hoof beats and try to do
20 whatever he can to rule out zebras.

21 12. The Board confirmed with Respondent that JM's medical record was a template
22 and Respondent provided no dictation or narrative. Respondent testified at the time he saw JM
23 the urgent care was using the template that was an improved template for use in urgent care and,
24 given the busy demand of urgent care and the volume of patients he saw, the urgent care facility
25 felt it was a good form to record the patients' findings. Respondent noted the urgent care now

1 uses electronic medical records. The Board asked how many patients Respondent saw per day
2 while working in urgent care. Respondent testified he remembered very vividly the week JM
3 presented because he had just started working and on that day he saw more than fifty patients.
4 The Board asked if on the basis of Respondent's training in ENT and on his years of practice
5 during which he looked at medical records, how would he grade his record for JM in terms of
6 completeness and in terms of addressing the components of history of present illness, review of
7 systems, and all of the necessary components. Respondent testified if the Board compared his
8 record to a record in an outpatient setting it would not have been as detailed, but he believes the
9 standard is to compare other urgent care records and he did. Respondent noted his comparison
10 showed his entries were legible whereas a lot of the records from other urgent care physicians he
11 could barely read, but he felt his entries were clear, legible, and he addressed the primary areas
12 of the history – duration, location, aggravating and relieving factors, etc.

13 13. The Board asked if Respondent had the capability to order an EKG at the urgent
14 care facility and, if he did, who would have interpreted it. Respondent testified if he had ordered
15 the EKG there is a computer interpretation, however, he was capable of reading EKGs and for
16 any equivocal cases he could always call the medical director and run the EKG by him as well.
17 The Board asked if Respondent, as an ENT specialist, felt comfortable at the point in time he saw
18 JM in interpreting an EKG had he ordered one. Respondent testified he did because of the
19 advanced cardiac life support training he was required to complete, plus, of course, he learned
20 how to read EKGs in medical school and residency, but he did have to refresh himself because it
21 was many years since he interpreted an EKG. The Board noted it did not believe the advance
22 cardiac life support training gave information and instruction in interpreting EKGs. Respondent
23 noted the Board was correct, but he also reviewed the gold standard textbook that medical
24 students and residents use to interpret EKGs that is a program learning text and when he was
25 finished with the book he was able to interpret EKGs. The Board asked how long ago

1 Respondent worked in an emergency room. Respondent testified it was after he finished his
2 residency when he took the summer off to study for his boards and he worked in the emergency
3 room for about three months. The Board asked how many typical or atypical cardiac patients
4 presented during those three months. Respondent testified it was hard to remember over such a
5 long period of time and he would guess he probably saw at least two or three cases per day
6 during that three-month period.

7 14. The Board noted the cardiac event could have occurred prior to the event that
8 brought JM to the urgent care facility and, if so, an EKG would have been helpful because it
9 probably would have showed the changes and the sooner there was intervention the more
10 myocardium could have been saved. The Board noted the treatment for papillary muscle necrosis
11 and dysfunction, if the heart attack is large enough, is emergent valve replacement. The Board
12 also noted the mortality rate associated with papillary muscle dysfunction is approximately fifty
13 percent if the patient is in a facility where cardiac surgery intervention is imminently available. The
14 Board could not determine whether early intervention would have saved JM from papillary muscle
15 necrosis, but he was deprived of that chance.

16 15. The standard of care required Respondent to recognize signs and symptoms of
17 myocardial origin and order an EKG.

18 16. Respondent deviated from the standard of care because he did not recognize the
19 signs and symptoms of myocardial origin, accordingly, did not order an EKG.

20 17. JM was deprived the chance of earlier intervention.

21 CONCLUSIONS OF LAW

22 1. The Arizona Medical Board possesses jurisdiction over the subject matter hereof
23 and over Respondent.

1 DATED this 12th day of October, 2006.



THE ARIZONA MEDICAL BOARD

By *Timothy C. Miller*
TIMOTHY C. MILLER, J.D.
Executive Director

7 ORIGINAL of the foregoing filed this
8 13th day of October, 2006 with:

9 Arizona Medical Board
9545 East Doubletree Ranch Road
Scottsdale, Arizona 85258

10 Executed copy of the foregoing
11 mailed by U.S. Mail this
12 13th day of October, 2006, to:

13 Paul J. Giancola
14 Snell & Wilmer, LLP
400 East Van Buren
Phoenix, Arizona 85004-2202

15 Duane G. Martin, M.D.
16 Address of Record

17 *Duane G. Martin*