IN THE SUPREME COURT OF MISSOURI

NO. SC 96901

HEATHER SHALLOW, MICHAEL BISHOP AND TODD BISHOP,

Plaintiffs/Appellants,

vs.

RICHARD FOLLWELL, D.O. AND RICHARD O. FOLLWELL, P.C.,

Defendants/Respondents.

Appeal from the Circuit Court of Lincoln County, Missouri
45th Judicial Circuit
Honorable Chris Kunza Mennemeyer, Circuit Judge
Case No. 13L6-CC00122

RESPONDENTS' AMENDED SUBSTITUTE BRIEF

Mark A. Gonnerman, #49523MO
William J. Magrath, #40511MO
GONNERMAN REINERT, LLC
222 South Central Avenue, Suite 500
St. Louis, Missouri 63105
Phone: (314) 880-8060
Fax: (314) 880-8059
mag@grstllaw.com
wjm@grstllaw.com

Attorneys for Respondents

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STATEMENT OF FACTS

Pursuant to Missouri Supreme Court Rule 84.04(f), Respondents Richard Follwell, D.O. and Richard O. Follwell, P.C. (hereinafter referred to collectively as "Respondents" or "Dr. Follwell") offer the following Statement of Facts to provide a complete factual record.

On May 17, 2012, Ms. Saundra Beaver presented to Dr. Richard Follwell, a general surgeon, with complaints of dysphagia and abdominal pain. (Transcript ("Tr.") Volume 5 of 9 ("5"), 678:17-24). Her medical history included a stroke, congestive heart failure, and chronic obstructive pulmonary disease. (Tr. 5, 673:14 to 674:18). Dr. Follwell diagnosed Ms. Beaver with an incisional hernia, a hole or defect in the abdominal wall. (Tr. 5, 680:11-19). Dr. Follwell recommended a laparoscopic hernia repair to place mesh to cover or close the hole. (Tr. 5, 681:3-10).

Dr. Follwell explained to Ms. Beaver the proposed procedure was a major abdominal surgery and hernia surgeries can be quite painful. (Tr. 5, 681:20-24). Dr. Follwell described the risks of surgery to include death, bleeding, bowel perforation, injury to surrounding organs, and blood clot. (Tr. 5, 682:2-7). Dr. Follwell also explained to Ms. Beaver she had a greater risk for surgical complications due to her history of congestive heart failure, stroke, COPD, continued smoking, high blood pressure, high cholesterol, and history of multiple previous abdominal surgeries. (Tr. 5, 682:20 to 683:10). Ms. Beaver decided not to pursue surgery at that time. (Tr. 5, 683:11-16).

Dr. Follwell's November 30, 2012 Surgery

On October 24, 2012, Ms. Beaver returned to see Dr. Follwell for reevaluation of her hernia, and she elected to proceed with surgery. (Tr. 5, 687:9-17; 688:17-19). On November 30, 2012, Dr. Follwell performed a laparoscopic hernia repair with mesh at Lincoln County Memorial Hospital. (Tr. 5, 691:20-24). Ms. Beaver had a ventral hernia located just above the bellybutton. (Tr. 5, 693:2-7). As part of the laparoscopic procedure, Dr. Follwell placed trocars in the abdomen. (Tr. 5, 695:5-21). First, Dr. Follwell inserted a trocar with a camera into the abdomen under direct visualization. (Tr. 5, 695:22 to 696:13). Second, Dr. Follwell inflated the abdomen with gas so he could visualize the operative field, and then he placed the remaining trocars for instrument usage. (Tr. 5, 696:16-25).

During the surgery, Dr. Follwell determined the omentum (or the "apron" of fat that layers in front of the bowel) was in the hernia. (Tr. 5, 697:11-15). Dr. Follwell did not find any bowel inside the hernia. (Tr. 5, 697:11 to 698:6). Dr. Follwell denied ever encountering the bowel during the surgery. (Tr. 5, 697:8-10). Likewise, Dr. Follwell did not observe any indications of a bowel injury during the surgery. (Tr. 5, 702:4-10). Dr. Follwell completed the surgery without any apparent complications. (Tr. 5, 702:17-23).

Evening of November 30, 2012 Emergency Department Admission

Ms. Beaver was discharged at approximately 12:30 p.m. on November 30, 2012, with a prescription for pain medication and instructions to call if she had pain that was uncomfortable for her. (Tr. 5, 705:16 to 706:15). At approximately 9:35 p.m. that evening,

Ms. Beaver presented to the emergency room at Lincoln County Memorial Hospital complaining of a pain level of 10 out of 10. (Tr. 5, 707:5-7; 727:23-25). She was seen by the emergency room physician, Dr. Yasmira Watson. Dr. Watson's physical examination noted a slightly distended abdomen with no rebound tenderness and no guarding. (Tr. 5, 741:11 to 742:4). Ms. Beaver had a normal temperature, heart rate, respiratory rate, and blood pressure. (Tr. 5, 729:6-24). Dr. Watson's examination did not reveal any signs of peritonitis. (Tr. 5, 742:5-7).

Peritonitis is inflammation or irritation of the lining of the abdomen or pelvis. (Tr. 5, 731:1-6). Typically, a patient with peritonitis would have an elevated heart rate, temperature, blood pressure, and respiratory rate. (Tr. 5, 731:13-19). On physical examination, the abdomen would be rigid or hard. (Tr. 5, 731:20-22). The patient would also likely have guarding, where the patient pulls back to avoid being touched, and/or rebound tenderness, where the patient has significant pain when someone pushes on the abdomen and then releases the pressure. (Tr. 5, 732:1-13).

December 1, 2012 Hospital Admission

Ms. Beaver was admitted to the hospital for observation at approximately 1:00 a.m. on December 1, 2012, with a diagnosis of postoperative pain. (Tr. 5, 743:8-16). At 1:48 a.m. and again at 3:03 a.m., Ms. Beaver had normal vital signs, with no indication of an elevated heart rate, respiratory rate, or blood pressure. (Tr. 5, 743:24 to 744:10; 746:11-21). At 4:00 a.m., blood work showed Ms. Beaver had a slightly elevated white blood cell count of 12.0 (normal being 10.8), and elevated granulocytes of 93%, neither being an uncommon stress-related response after surgery. (Tr. 5, 745:6-22).

Dr. Follwell's Examination at 7:00 a.m. on December 1, 2012

Dr. Follwell examined Ms. Beaver at approximately 7:00 a.m. on the morning of December 1, 2012. (Tr. 5, 750:7-11). Ms. Beaver's vital signs that morning were again normal, with normal temperature, pulse, respiration rate, blood pressure, and oxygen saturation. (Tr. 5, 750:12-20). Dr. Follwell's physical examination found her abdomen to be soft with good bowel sounds, and mildly distended. She had appropriate pain on abdominal examination, given the recent surgery. (Tr. 5, 752:13-16). Dr. Follwell did not note any rigidity of her abdomen, any guarding, or rebound tenderness. (Tr. 5, 753:15-23). Dr. Follwell testified a patient who had a frank perforation during surgery eighteen hours earlier would have had peritonitis, with uncontrollable pain, by 7:00 a.m. the next morning. (Tr. 5, 756:19 to 757:4). Dr. Follwell further testified Ms. Beaver was not septic when he saw her in the morning, and there was nothing to indicate she might have a bowel perforation. (Tr. 5, 758:12-19). Dr. Follwell's plan was to observe her; continue pain control, which included restarting her oral pain medication; and to begin deep vein thrombosis prophylaxis. (Tr. 5, 754:25 to 755:4; 756:5-11).

Ms. Beaver's December 1, 2012 Hospitalization and Afternoon Discharge

Ms. Beaver received her oral pain medication at 8:10 a.m. (Tr. 5, 764:6-9). At 9:40 a.m., Ms. Beaver informed the nursing staff her nausea was gone and her pain had improved. (Tr. 5, 766:3-9). At 10:30 a.m., the nursing staff placed an abdominal binder, which is a compression garment wrapped tightly around the abdomen, similar to a corset, and Ms. Beaver walked approximately four steps and returned to bed. (Tr. 5, 766:10-13; Tr. 6, 906:6-22). At 11:40 a.m., Ms. Beaver reported a pain level of 7 out of 10, and she

was given pain medication. (Tr. 5, 766:20 to 767:3). At 12:30 p.m., she was tolerating her liquids and eating a banana. (Tr. 5, 767:15-17). At 1:30 p.m., Ms. Beaver's pain had decreased to 4 out of 10. (Tr. 5, 767:25 to 768:2). Ms. Beaver stated she did not have any nausea, her pain was controlled, and she was ready to go home. (Tr. 5, 768:3-6). The nurse then called Dr. Follwell, and Dr. Follwell ordered Ms. Beaver's discharge to home. (Tr. 5, 769:4-14). Ms. Beaver again had normal vital signs at 1:35 p.m. (Tr. 5, 770:7-13). At 2:01 p.m. on December 1, 2012, Ms. Beaver was getting ready to be discharged and reported pain of 6 out of 10. (Tr. 5, 772:2-11). Ms. Beaver was given her oral pain medication, and discharged home. (Tr. 5, 772:12-19).

Evening of December 2, 2012 Emergency Department Admission

Ms. Beaver was discharged from Lincoln County Memorial Hospital at approximately 2:00 p.m. on December 1, 2012. (Tr. 5, 771:23 to 772:5). More than thirty hours later, at 8:18 p.m. on December 2, 2012, Ms. Beaver returned to the Lincoln County Memorial Hospital emergency department. (Tr. 3, 439:4-14). Ms. Beaver had a very low blood pressure and was severely dehydrated. (Tr. 3, 438:3-21). Ms. Beaver was diagnosed with septic shock, metabolic acidosis, and acute kidney failure. (Tr. 3, 442:13-16).

Transfer from Lincoln County to St. Joseph's West Hospital

Ms. Beaver was transferred from Lincoln County Memorial Hospital to St. Joseph's West early on the morning of December 3, 2012. (Tr. 3, 447:8-15). During the transfer, she was noted to be in atrial fibrillation, meaning she had an irregular heartbeat. (Tr. 7, 1000:17-23). An abdominal CT scan taken without contrast was interpreted by a radiologist at approximately 8:30 a.m. on the morning of December 3, 2012. (Tr. 5, 781:3-

25). The CT scan showed postoperative abdominal wall fluid collections in the periumbilical region following ventral hernia repair and possible early abscess formation with the possibility of a bowel leak. (Tr. 5, 781:3-22). The radiologist also noted that bowel ischemia could also account for the findings. *Id*.

Ms. Beaver then came under the care of Dr. Mark Leibold, a general surgeon, who examined Ms. Beaver shortly before noon on December 3, 2012. (Tr. 4, 631:22; Respondents' Legal File ("R.L.F.") p. 56, Deposition of Dr. Leibold, 6:15-18; 8:18 to 9:8). Dr. Leibold diagnosed Ms. Beaver with septic shock, which he defined as a very, very low blood pressure from infection that affects the entire body. (R.L.F. p. 57, 12:12-23; 14:16-24). Ms. Beaver had multisystem organ dysfunction, and Dr. Leibold diagnosed her with a likely perforated viscous, or a hole in the bowel. (R.L.F. p. 58, 15:17 to 16:24).

Dr. Leibold's First Surgery on the Afternoon of December 3, 2012

On the afternoon of December 3, 2012, Dr. Leibold performed a diagnostic laparoscopy and exploratory laparotomy with partial small bowel resection times three and removal of infected mesh. (R.L.F., p. 58, 17:6-12). During the surgery, Dr. Leibold found three distinct segments of frankly ischemic bowel, meaning the three segments of frankly ischemic bowel did not border each other, and there was normal bowel in between the three segments. (R.L.F., p. 64, 41:12-19; 51:6-10). Dr. Leibold also observed areas of "dusky" bowel that were still viable with areas of patchy necrosis. (R.L.F., p. 67, 51:11-23; Tr. 3, 453:14-19). Dr. Leibold noted a small perforation in one of the segments of frankly ischemic bowel, which was adjacent to the mesh that had been placed during Dr. Follwell's surgery. (R.L.F., p. 65, 44:9-12; 45:1-7). Dr. Leibold testified the perforation was within

an ischemic segment, but did not make any other distinctions in his operative report regarding the perforation. (R.L.F., p. 67, 52:12-16). Dr. Leibold removed the three segments of ischemic bowel, and noted approximately 14 ml of bilious enteric contents within the peritoneum, meaning the contents of the intestine had spilled out into the abdomen. (R.L.F., p. 59, 19:24-20:3).

Ms. Beaver's Course After December 3, 2012

Dr. Leibold operated on Ms. Beaver again on December 6, 2012, to remove additional segments of necrotic bowel. (R.L.F., p. 67, 53:15-23). Dr. Leibold's operative note referred to a "necrotic omentum," although the subsequent pathology report did not find the omentum to be necrotic. (Tr. 3, 460:13-24; Tr. 8, 1161:17-22). On December 8, 2012, Dr. Leibold performed a third procedure in which he over sewed remaining small spots of discoloration on the bowel and closed the wound. (R.L.F., p. 60, 24:3 to 25:13). Ms. Beaver remained hospitalized until December 27, 2012. (R.L.F., p. 60, 24:14-19). Ms. Beaver died on July 5, 2013. (Legal File 81).

Trial

On October 7, 2013, Ms. Beaver's three adult children ("Appellants") brought suit against Respondent Dr. Follwell and his practice. (Legal File 77-79). A five day jury trial was held in Lincoln County from September 28, 2015 through October 2, 2015. (Tr. 1). Appellants argued Ms. Beaver developed a small bowel perforation during, or shortly after, surgery; by 3:00 p.m. on November 30, 2012, she was leaking bowel contents into her abdomen; the perforation/leak led to bowel ischemia; and the leak caused her to eventually become septic. (Tr. 2, 292:10 to 293:20; Tr., 4, 549:18 to 550:18). Appellants alleged Dr.

Follwell deviated from the standard of care by failing to diagnose and treat a bowel perforation and ischemia that existed as of the time he saw her on the morning of December 1, 2012, and the delay in treating the bowel perforation and ischemia caused or contributed to cause her death. (Tr. 2, 295:9-13).

Respondents countered that Ms. Beaver did not have a bowel perforation or bowel ischemia when Dr. Follwell saw her on the morning of December 1, 2012, as shown by her normal vital signs and the absence of any signs or symptoms of peritonitis, and Dr. Follwell's treatment complied with the standard of care. (Tr. 5, 769:12 to 770:6). Respondents further argued that after Ms. Beaver's discharge on the afternoon of December 1, 2012, she developed an embolism (likely caused by atrial fibrillation) which broke apart into multiple smaller emboli and entered the terminal branches of the superior mesenteric artery, which provides blood flow to the bowel. (Tr. 6, 914:14-18; Tr., 8, 1134:1-22). The emboli caused the segmental ischemia and necrosis of the bowel found by Dr. Leibold, and the bowel perforation developed due to the necrosis caused by one of the emboli. (Tr. 6, 914:14-18; Tr. 8, 1134:1-22).

Appellants' Case

Appellants presented testimony from two medical experts at trial. First, Appellants presented expert testimony from their retained expert, Dr. Garry Ruben, a general surgeon who also specializes in vascular surgery. (Tr. 3, 360:3-8). As a general surgeon, Dr. Ruben performs a broad range of surgeries, including hernia repairs. (Tr. 3, 365:7-12). Although not board certified in vascular surgery, Dr. Ruben operates on arteries to remove blockages or repair enlarged arteries, or aneurysms. (Tr. 3, 365:17-22).

Appellants' Theory - Dr. Follwell injured the bowel during surgery

Dr. Ruben testified a laparoscopic hernia repair with mesh can cause a bowel perforation either when the trocars inserted to perform surgery hit a piece of bowel; or while the surgeon is using scissors to cut adhesions and the surgeon cuts the bowel; or when the surgeon is using a tacking gun to attach the mesh. (Tr. 3, 401:1 to 402:10). Although Dr. Follwell never mentioned the bowel in his operative report, and testified he did not encounter the bowel, Dr. Ruben opined Dr. Follwell made a tiny hole in the bowel while cutting adhesions with scissors, and the tiny hole either did not start leaking right away, or was not appreciated because it was so small. (Tr. 3, 402:11 to 403:8; Tr. 5, 697:8-10; 702:4-10).

Appellants' Theory - Ms. Beaver had a slow bowel leak by 3:00 p.m. on November 30, 2012

Dr. Ruben agreed that when Dr. Follwell examined Ms. Beaver on the morning of December 1, 2012, Ms. Beaver had a mildly distended soft abdomen, good bowel sounds, and normal vital signs. (Tr. 3, 420:19-22; 421:8-13). Dr. Ruben noted the December 2, 2012 exploratory surgery by Dr. Leibold found a tiny, 0.2 centimeter, hole in the bowel. (Tr. 3, 421:19-21). Dr. Ruben opined Ms. Beaver already had a bowel perforation when Dr. Follwell examined her on the morning of December 1, 2012, but because the hole was so small she was in the early stages and the infection had not yet impacted her vital signs. (Tr. 3, 421:14-25). Dr. Ruben testified that Ms. Beaver began leaking fluids at the time of, or shortly after, Dr. Follwell's surgery on November 30, 2012. (Tr. 3, 451:9-12).

Dr. Leibold, the subsequent treating surgeon, noted the hole he found was located in the area of the mesh placed during Dr. Follwell's surgery. (Tr. 3, 457:4-6). Dr. Ruben testified this supported his conclusion the bowel perforation occurred during the surgery performed by Dr. Follwell. (Tr. 3, 457:4-16). Dr. Ruben further noted Ms. Beaver's complaints of pain and nausea in the early morning hours of December 1, 2012, and her slightly elevated white blood cell count lent support to his opinion. (Tr. 3, 414:11 to 415:7; 424:9-22).

Appellants' Theory - standard of care opinions

Dr. Ruben testified Dr. Follwell fell below the standard of care during Ms. Beaver's hospitalization on December 1, 2012, by not ordering a CT scan with contrast which, Dr. Ruben believed, would have shown contrast leaking out of the bowel, which would have then led to Dr. Follwell repairing the perforation earlier. (Tr. 3, 431:5-22). Alternatively, Dr. Ruben testified Dr. Follwell could have taken the patient back to the operating room for exploratory surgery to examine the abdominal cavity, which would have also led to the discovery and repair of a bowel perforation. (Tr. 3, 432:3-19). Dr. Ruben also testified Dr. Follwell could have met the standard of care by keeping Ms. Beaver in the hospital and repeating the white blood cell count later in the day to see if her white blood cell count improved. (Tr. 3, 432:20 to 433:11). Dr. Ruben opined Ms. Beaver would have avoided septic shock and her subsequent death if Dr. Follwell had operated on Ms. Beaver on December 1, 2012, to repair the bowel perforation Dr. Ruben believed was created during the November 30, 2012 surgery. (Tr. 3, 436:10-23).

Appellants' Theory - segmental ischemia

During the exploratory surgery on the afternoon of December 3, 2012 (three days after Dr. Follwell's surgery), Dr. Leibold found three segments of frankly ischemic bowel, and large segments of marginal dusky appearing bowel with areas of patchy necrosis. (Tr. 3, 453:14-19). Dr. Ruben attributed the three segments of frankly ischemic bowel and areas of dusky bowel with patchy necrosis to two causes. (Tr. 3, 455:24 to 456:5). First, Dr. Ruben believed bowel contents from the perforation came into contact with the intestine, and some areas of the bowel were impacted worse than others, causing those segments to die. (Tr. 3, 453:22 to 455:23). Second, Dr. Ruben testified Ms. Beaver's severe low blood pressure, or hypoperfusion, on her presentation to the emergency room late on the evening of December 2, 2012, decreased the blood flow to the bowel. (Tr. 3, 455:24 to 456:18). Thus, he believed, the injury to the bowel did not happen equally, causing patchy areas like those found by Dr. Leibold. (Tr. 3, 456:19-22).

Appellants' Theory - atrial fibrillation did not cause bowel injury

Dr. Ruben testified Ms. Beaver could not have first developed ischemia and necrosis of her bowel resulting from a clot from her heart due to atrial fibrillation that embolized to her mesenteric artery, which provides blood flow to the bowel. (Tr. 3, 472:16-24). Dr. Ruben argued if an embolism had caused necrotic bowel, the necrotic bowel would remain intact for two to five days before a perforation would occur. (Tr. 3, 464:9 to 466:3). Dr. Ruben also argued a perforation from necrosis would be larger than the 0.2 cm perforation found by Dr. Leibold. (Tr. 3, 464:9 to 466:3). Dr. Ruben concluded the only scenario that

"made any sense" was that the bowel perforation occurred first, followed by development of sepsis resulting in hypoperfusion to the bowel and bowel ischemia. (Tr. 3, 465:3-6).

Dr. Ruben, a surgeon, further described Ms. Beaver's nine year history of cardiac examinations to conclude Ms. Beaver did not have atrial fibrillation at the time of Dr. Follwell's surgery. (Tr. 3, 382:3-20; 474:19 to 493:5). Dr. Ruben described atrial fibrillation as a heart defect where the muscles of the heart do not beat in sequence. (Tr. 3, 470:2-6). As a result, blood pools and clots within the heart and then, when the heart pumps, it can send a clot into the blood stream. (Tr. 3, 470:19-23).

Dr. Ruben testified atrial fibrillation is easy to diagnose. (Tr. 3, 473:11-13). Dr. Ruben first said patients would notice the condition themselves. (Tr. 3, 473:13 to 474:1). Next, Dr. Ruben testified atrial fibrillation can be diagnosed by checking a pulse, a cardiogram, a cardiac ultrasound, a stress test, a Holter monitor, or an EKG. (Tr. 3, 474:2-12). Dr. Ruben said Ms. Beaver never had atrial fibrillation prior to December 3, 2012, because she did not have any significant underlying cardiac disease, and no one ever observed an irregular heart rate consistent with atrial fibrillation. (Tr. 3, 474:13-18).

After dismissing the possibility that Ms. Beaver had undiagnosed atrial fibrillation, Dr. Ruben then proceeded to dismiss the possibility that Ms. Beaver developed an embolism in her superior mesenteric artery that caused her segmental ischemia and necrosis. Dr. Ruben testified unequivocally that Ms. Beaver did not have an embolism in her superior mesenteric artery. (Tr. 3, 466:21 to 467:1).

Dr. Ruben opined someone would need to be in a state of atrial fibrillation for several weeks to develop a clot. (Tr. 3, 469:1-4). Dr. Ruben testified blood clots most

commonly go to the legs. (Tr. 3, 471:14-18). The blood clot can go to the arms or, "conceivably," go to the mesenteric artery. (Tr. 3, 471:23-25). Dr. Ruben said the frequency of someone with untreated atrial fibrillation "throwing a clot," is 8%. (Tr. 3, 472:1-8). Of the 8% who throw a clot, 90% to 95% of the clots go to the legs. (Tr. 3, 472:12-15). Dr. Ruben also testified the chance of a blood clot traveling from the heart to the superior mesenteric artery is "extremely remote." (Tr. 3, 472:12-15). Dr. Ruben concluded the notion of someone developing a blood clot that went to the superior mesenteric artery a day or two after a ventral hernia repair "is absurd, and that's putting it mildly." (Tr. 3, 472:21-24).

Finally, Dr. Ruben testified Dr. Leibold's finding of "necrotic omentum" during the second surgery he performed on December 6, 2012, further indicated an embolism in the superior mesenteric artery did not cause the necrotic bowel. (Tr. 3, 460:13 to 462:2). The omentum is the apron of fat tissue that lays in front of the bowel. (Tr. 3, 461:5-9). Dr. Ruben testified the omentum has a totally different blood supply than the small intestine. (Tr. 3, 461:16-18). Therefore, the necrotic omentum was not caused by a blockage of an artery delivering blood to the omentum. (Tr. 3, 461:19-20). Rather, Dr. Ruben testified, low blood pressure and direct contact with stool and bacteria caused the necrotic omentum. (Tr. 3, 461:21-23).

Dr. Leibold

After the testimony of Dr. Ruben, Appellants presented the videotaped deposition testimony of Dr. Leibold, the surgeon who operated on Ms. Beaver at St. Joseph's West. Dr. Leibold testified that when he examined Ms. Beaver on December 3, 2012, she was in

septic shock with very low blood pressure, and he was worried about a possibly missed bowel injury. (R.L.F., p. 58, 15:11-16:9). Dr. Leibold did not have access to Dr. Follwell's operative report, or the hospital records from November 30, 2012 to December 1, 2012, when he commented on a possible missed bowel injury. (R.L.F., p. 62, 31:21 to 33:3). Dr. Leibold thought the frankly ischemic bowel he found was probably caused by low blood pressure, meaning low blood or oxygen supply, to the intestines. (R.L.F., 59, 20:22 to 21:1).

Respondents' Case

Respondents responded to Appellants' claims by first calling Dr. Follwell. Dr. Follwell walked the jury in detail through Ms. Beaver's surgery, and her hospitalizations. (Tr. 5, 670:22 to 772:23). In doing so, Dr. Follwell responded to Appellants' theories.

Contrary to Appellants' assertion, Dr. Follwell testified he did not encounter the bowel during the operation. (Tr. 5, 697:4-10). Dr. Follwell explained the omentum, as opposed to the small bowel, was in the hernia and he never encountered the small bowel. (Tr. 5, 697:11 to 698:6). Dr. Follwell testified he did encounter adhesions in the form of a small band holding the fat, which he had cut, but he did not encounter any adhesions from prior surgeries that may have involved the small bowel. (Tr. 5, 698:7-17). Dr. Follwell did not believe there was a perforation at the time he finished surgery. (Tr. 5, 703:2-6). Dr. Follwell also did not believe Ms. Beaver had a bowel perforation by 3:00 p.m. on November 30, 2012 (shortly after the surgery), based on Ms. Beaver's vital signs at the hospital later that evening. (Tr. 5, 729:25 to 730:7). Dr. Follwell also disagreed with Dr. Ruben's theory of a slow leak based on her physical examination and vital signs noted by

Dr. Watson on the evening of November 30, 2012, when Ms. Beaver was re-admitted to the hospital. (Tr. 5, 730:8-21).

Dr. Follwell testified when he saw Ms. Beaver in the hospital on the morning of December 1, 2012, a CT scan was not indicated so soon after surgery because it would not rule out a perforation – rather it would likely show inflammation, air, and fluid as a result of the laparoscopic surgery. (Tr. 5, 759:22 to 760:23). Dr. Follwell further testified the standard of care did not require him to take Ms. Beaver back to the operating room for an exploratory laparoscopy or obtain serial labs because he did not have any indication to do so. (Tr. 5, 761:14 to 762:25). Dr. Follwell testified his discharge of Ms. Beaver on December 1, 2012, was appropriate and there was nothing in Ms. Beaver's presentation that suggested either peritonitis, or a perforation. (Tr. 5, 769:12-19). Dr. Follwell also did not believe Ms. Beaver could have had a perforation in her bowel that had been present for over twenty-four hours when she was discharged from the hospital at 2:00 p.m. on December 2, 2012, based on her presentation. (Tr. 5, 769:23 to 770:6).

Over objection, Dr. Follwell testified he did not believe Ms. Beaver had a bowel perforation when she was discharged from the hospital on the afternoon of December 1, 2012. (Tr. 5, 778:22 to 779:4). Also over objection, Dr. Follwell testified he believed the segmental necrotic bowel found by Dr. Leibold could only occur as a result of a vascular injury. (Tr. 5, 788:25 to 789:14). Dr. Follwell explained the potential causes of a vascular injury were either cutting the blood vessel (which did not occur during Dr. Follwell's surgery), or a blood clot or embolism. (Tr. 5, 789:15 to 790:25). Dr. Follwell disagreed

with the testimony of Dr. Leibold, who had testified he believed the segmental ischemic and necrotic bowel may have been caused by hypoperfusion. (Tr. 6, 795:19-22).

Testimony of Dr. Bochicchio – general surgery and critical care medicine

Respondents next called Dr. Grant Bochicchio, the Chief of Acute and Critical Care Surgery at Washington University and Barnes-Jewish Hospital. (Tr. 6, 851:21 to 852:5). Dr. Bochicchio is board certified in general surgery and critical care medicine. (Tr. 6, 860:10–13). As part of his practice, Dr. Bochicchio has a hernia clinic where he treats very complicated hernias and performs hernia research. (Tr. 6, 855:23 to 856:7). As a general surgeon who performs hernia repairs, Dr. Bochicchio focused his testimony primarily on Dr. Follwell's compliance with the standard of care, although he also touched upon causation.

Dr. Bochicchio testified he did not believe Ms. Beaver had a full thickness perforation of her small bowel from the time of her surgery on November 30, 2012, through her return to the emergency room that evening and her subsequent discharge on the afternoon of December 1, 2012. (Tr. 6, 867:21 to 868:4). Dr. Bochicchio testified Dr. Follwell appropriately discharged Ms. Beaver from Lincoln County Medical Center on the afternoon of December 1, 2012. (Tr. 6, 868:5-10). Dr. Bochicchio believed Ms. Beaver developed a delayed perforation that caused her to return to Lincoln County Medical Center more than twenty-four hours later on the evening of December 2, 2012. (Tr. 6, 868:11-17). Dr. Bochicchio testified Dr. Follwell did everything appropriately during Ms. Beaver's admission from the evening of November 30, 2012 through the afternoon of December 1, 2012. (Tr. 6, 868:18-23).

Dr. Bochicchio testified Ms. Beaver did not have any signs or symptoms of peritonitis, such as a rigid and painful abdomen and elevated vital signs, before her discharge on the afternoon of December 1, 2012. (Tr. 6, 891:17 to 893:4). Dr. Bochicchio also testified a patient with a bowel perforation will not improve with the passage of time. (Tr. 6, 895:5-7). Therefore, Dr. Bochicchio disagreed with Appellants' theory that Ms. Beaver had a frank perforation of her bowel by 3:00 p.m. on the afternoon of her November 30, 2012 surgery that progressively worsened until her discharge at 2:00 p.m. the following day. (Tr. 6, 896:10-24, 897:3-15).

Dr. Bochicchio testified that if Ms. Beaver had a bowel perforation while in the hospital on December 1, 2012, she would have had inflammation of the abdominal wall with symptoms of a perforation. (Tr. 6, 897:3-24). If Ms. Beaver had a bowel perforation since 3:00 p.m. on November 30, 2012, as Appellants claimed, she would have had a fever, elevated heart rate, and peritonitis by the time of her discharge on December 1, 2012 at 2:00 p.m. (Tr. 6, 901:18 to 902:6). Dr. Bochicchio testified the slightly elevated white blood cell count on December 1, 2012, was entirely consistent with a post-operative patient, who had not experienced any complications. (Tr. 6, 903:15 to 904:17).

Dr. Bochicchio also noted an abdominal binder had been placed on Ms. Beaver at 10:30 a.m. on December 1, 2012, which further suggested Ms. Beaver did not have peritonitis at that time. (Tr. 6, 906:3 to 907:1). Dr. Bochicchio noted the binder is wrapped tightly around the abdomen like a corset, and if a patient has peritonitis an abdominal binder could not be tolerated. (Tr. 6, 906:6 to 907:1). Dr. Bochicchio further testified a CT scan on December 1, 2012, the day after laparoscopic surgery, would not have been diagnostic

because the CT scan would necessarily show air from the laparoscopic surgery used to insufflate the abdomen during the procedure. (Tr. 6, 907:8 to 909:20).

Dr. Bochicchio disagreed with Dr. Ruben's opinion that Dr. Follwell breached the standard of care by not inserting a scope into Ms. Beaver's abdomen to examine her on the morning of December 1, 2012. (Tr. 6, 911:10 to 912:14). Dr. Bochicchio testified the standard of care did not require this because the patient's presentation was not unusual for a postoperative patient. (Tr. 6, 911:10 to 912:5). Dr. Bochicchio also testified the standard of care did not require repeat blood work prior to her discharge on December 1, 2012. (Tr. 6, 912:19-21).

Dr. Bochicchio did not believe Ms. Beaver had a bowel perforation either at the time of surgery, or at any time up until her discharge on December 1, 2012. (Tr. 6, 888:8-13; 913:6-9). He testified Ms. Beaver most likely had a tear of the serosa, or outer layer of the bowel (as opposed to an actual perforation), which possibly occurred when a trocar was placed for the surgery. (Tr. 6, 942:17-23). He testified the serosal tear finally ruptured sometime after she had been discharged from the hospital on December 2, 2012. (Tr. 6, 913:24 to 914:4; 942:17 to 943:1). The segmental ischemia noted by Dr. Leibold suggested to Dr. Bochicchio that she also had some type of mesenteric embolic event to cause her condition, which could have come from atrial fibrillation. (Tr. 6, 944:12-17; 918:12-21). Dr. Bochicchio disagreed with Dr. Leibold's opinion that hypoperfusion caused her segmental ischemia because hypoperfusion would cause contiguous ischemia/necrosis – not segmental ischemia/necrosis, because of systemic lack of blood perfusion. (Tr. 6, 919:18 to 920:9).

Dr. Bochicchio did not testify in detail regarding either Ms. Beaver's cardiac history or the likelihood that she had undiagnosed atrial fibrillation. Dr. Bochicchio also did not respond to Dr. Ruben's opinions regarding the likelihood of an embolism traveling to the superior mesenteric artery, which supplies blood and oxygen to the bowel.

Appellants' objection to further expert testimony

Following the testimony of Dr. Bochicchio, Appellants raised an objection to further expert testimony from a cardiologist, a vascular surgeon, and a colorectal surgeon on the grounds that the testimony would be cumulative because Respondents had presented the testimony of Dr. Follwell and Dr. Bochicchio. (Tr. 7, 962:15 to 963:4). At this point in the trial, Respondents' witnesses had only testified briefly regarding whether Ms. Beaver had atrial fibrillation, and how an embolism could have caused the segmental ischemia/necrosis found by Dr. Leibold. While Dr. Follwell and Dr. Bochicchio testified they believed an embolism could have caused the segmental ischemia/necrosis, neither witness explained those opinions in any detail, and many of Appellants' claims had not yet been addressed by Respondents. While Respondents did not intend to cover the chain of events in the same detail with the subsequent witnesses, the substance of the expert testimony was necessary to respond to the opinions of Appellants' experts. The trial court responded to Appellants' counsel as follows:

> THE COURT: At this time, the Court has already addressed that, and the Court has addressed that off the record with counsel yesterday before we adjourned.

> It's my understanding that counsel for Mr. Follwell [sic] agrees that there are going to be some parts that have been covered.
>
> I don't think I can make a judgment call before I even see each expert as to what I'm cutting out, but I'm going to, just again, caution counsel to use discretion in how deep we're going as far as the chain of events and things that have already been covered.
>
> So I'm agreeing with Ms. Gunn at that point, but there's no way for me to say what to cut out until I start seeing it happen.
>
> So if it goes down that road, you'll just have to make the objection at that time and the Court will be aware of that, as well.

(Tr. 7, 963:5-21). Although the Court instructed Appellants' counsel to object if she ever believed the testimony had become unduly cumulative, Appellants counsel never raised a cumulative objection to any questions during the testimony of Respondents' next witness, Dr. Morton Rinder.

Respondents' cardiology expert, Dr. Rinder

Respondents then presented the testimony of their retained cardiology expert, Dr. Morton Rinder. Unlike Dr. Follwell and Dr. Bochicchio, Dr. Rinder's testimony did not cover Ms. Beaver's surgery, or her hospitalization from November 30, 2012 through December 1, 2012, in any detail and he did not offer any standard of care opinions. Rather, Dr. Rinder's testimony focused on Appellants' claim that Ms. Beaver could not have developed an embolism from atrial fibrillation, resulting in segmental ischemic/necrotic bowel and a perforation.

Dr. Rinder described atrial fibrillation for the jury. (Tr. 7, 980:6 to 981:16). With atrial fibrillation, the heart beats erratically and sometimes does not beat at all. As a result, blood clots form in the left atrial appendage. (Tr. 7, 980:8 to 981:16). The clots remain in the heart until they break off and lodge somewhere. (Tr. 7, 982:18-23). Depending on the size of clot that breaks off and where the clot randomly goes, the clot could travel through the arterial vascular tree until it reaches an artery that is small enough that the clot stops. (Tr. 7, 984:5-18). The majority of clots go to the head and neck, but some clots go to the upper arm, kidneys, leg, and the gut. (Tr. 7, 984:19-25).

Dr. Rinder opined Ms. Beaver had previously unrecognized atrial fibrillation that led to the formation of a clot in her left atrial appendage that broke off and went into her abdomen, causing the segmental ischemia/necrosis of her bowel found by Dr. Leibold. (Tr. 7, 988:3-16; 1027:5-9). Dr. Rinder explained the superior mesenteric artery, which supplies blood to the bowel, has multiple branches that get smaller and smaller as they branch out. (Tr. 7, 987:8-11). As a blood clot travels into the small terminal branches of the artery the artery becomes completely blocked off, and the intestine perfused by that arterial branch dies off. (Tr. 7, 987:20-24). Areas of intestine that receive blood flow from terminal arteries that are not blocked by a clot maintain blood flow; are preserved; and remain viable. (Tr. 7, 987:25 to 988:2).

Appellants' retained expert, Dr. Ruben, had testified atrial fibrillation was "pretty easy to diagnose," and the fact Ms. Beaver had undergone prior cardiac studies without being diagnosed with atrial fibrillation proved she did not have the condition. (Tr. 3, 473:11-13; 474:19 to 493:5). Dr. Rinder explained there are numerous types of atrial

fibrillation, including paroxysmal, or intermittent, atrial fibrillation that comes and goes. (Tr. 7, 988:17 to 990:19). Dr. Rinder, a cardiologist, testified diagnosing paroxysmal atrial fibrillation can be a real challenge, and it is often only diagnosed after a patient has a stroke or has been on a monitor for years. (Tr. 7, 989:23 to 990:6). Dr. Rinder noted Ms. Beaver was diagnosed with atrial fibrillation during her ambulance transfer from Lincoln County Memorial Hospital to St. Joseph's West on the morning of December 3, 2012. (Tr. 7, 1000:17-23). Dr. Rinder testified Ms. Beaver likely had atrial fibrillation prior to December 3, 2012, when she was first diagnosed with the condition. (Tr. 7, 991:9-20).

While Appellants' retained expert testified the lack of a prior diagnosis of atrial fibrillation meant she likely did not have it, Dr. Rinder explained patients with intermittent atrial fibrillation are often not diagnosed until they have had a stroke or some sort of embolic phenomenon. (Tr. 7, 993:25 to 994:18). Dr. Rinder rebutted Dr. Ruben's claim that a patient needed to be in atrial fibrillation for weeks to develop a clot, noting this is a common misconception. (Tr. 7, 997:5-12). Dr. Rinder testified a patient is at just as high a risk of having a stroke or embolic phenomenon from a blood clot when the patient is only in atrial fibrillation for one day out of the year. (Tr. 7, 997:13-18). The clot leaving the heart is a very random event that can occur months or even a year after the clot has formed in the heart. (Tr. 7, 997:24 to 998:9).

Dr. Rinder offered the opinion that Ms. Beaver likely had atrial fibrillation for years prior to December 2012, and when she was diagnosed with atrial fibrillation on December 3, 2012, it was just the first time it had been noted. (Tr. 7, 1000:17 to 1001:5). Dr. Rinder noted Ms. Beaver had numerous risk factors for atrial fibrillation, including underlying

heart disease, congestive heart failure, atherosclerosis, smoking, her age, and a prior diagnosis of a stroke or a transient ischemic attack in the past. (Tr. 7, 1001:6-12). Dr. Rinder also testified stress could contribute to the clot breaking off, but to some extent the timing was coincidental. (Tr. 7, 1030:15-25). Based on Ms. Beaver's history, Dr. Rinder opined Ms. Beaver experienced an embolic event sometime late on Saturday, December 1, 2012, or early on Sunday, December 2, 2012. (Tr. 7, 1034:16-25).

Dr. Rinder disagreed with the theory that hypoperfusion from sepsis caused Ms. Beaver's ischemic bowel injury. (Tr. 7, 1035:20 to 1036:8). Dr. Rinder testified if Ms. Beaver experienced ischemia due to hypoperfusion from sepsis her entire bowel would have died, rather than distinct non-contiguous segments. (Tr. 7, 1036:20-24; 1037:22 to 1038:6). Dr. Rinder believed the embolism broke apart into smaller emboli which blocked several terminal branches of the mesenteric artery, as opposed to blocking the beginning part of the artery. (Tr. 7, 1038:21 to 1039:7). Dr. Rinder was unable to offer an opinion regarding the cause of the "necrotic omentum" described by Dr. Leibold in his operative report, or to testify regarding the source of blood flow to the omentum. (Tr. 7, 1077:3-6; 1077:24 to 1078: 2).

Respondents' vascular surgery expert, Dr. Naslund

Since Appellants had presented the testimony of Dr. Ruben, a non-board certified vascular surgeon, Respondents then called Dr. Naslund, the Chief of Vascular Surgery at Vanderbilt University. (Tr. 8, 1099:21-25). As a vascular surgeon, Dr. Naslund diagnoses and treats diseases of the vascular system, or blood vessels of the body. (Tr. 8, 1096:22-25). Dr. Naslund's clinical practice focuses on complex vascular disease, with an emphasis

on abdominal procedures, including mesenteric ischemia. (Tr. 8, 1104:21 to 1105:10). While Dr. Rinder focused his testimony on atrial fibrillation and how it can lead to the development of a blood clot, Dr. Naslund, as a vascular surgeon, testified more specifically regarding the anatomy of the vascular supply to the bowel, and how an embolism would cause the segmental ischemia and necrosis found by Dr. Leibold.

To help explain Dr. Naslund's opinion that he believed an embolism in the terminal branches of the superior mesenteric artery caused Ms. Beaver's bowel perforation, Dr. Naslund explained why, from his perspective as a vascular surgeon, he did not believe Ms. Beaver had a bowel perforation from Dr. Follwell's surgery and that Dr. Follwell met the standard of care. (Tr. 8, 1109:12 to 1110:14). Dr. Naslund noted Dr. Follwell's operative report did not suggest either that Dr. Follwell manipulated the bowel, or that any injury to the bowel occurred during surgery. (Tr. 8, 1114:3-20). Dr. Naslund further testified he did not believe Ms. Beaver had a frank perforation as of 3:00 p.m. on November 30, 2012, based on her presentation to the hospital later that evening. (Tr. 8, 1117:2 to 1119:11). Dr. Naslund agreed with Dr. Follwell's decision to discharge Ms. Beaver home on December 1, 2012. (Tr. 8, 1122:2-5). Dr. Naslund did not believe Ms. Beaver had a full thickness perforation of her bowel at any time prior to her discharge. (Tr. 8, 1109:19-24).

Dr. Naslund was asked whether a CT scan was necessary, at which point Appellants renewed their motion to bar cumulative evidence. (Tr. 8, 1124:23-24). The trial court overruled the objection, noting the testimony could reach a point of being cumulative, but the trial court did not believe the testimony had reached that point. (Tr. 8, 1124:23 to 1126:2). The trial court further explained its decision, noting that Dr. Naslund had his own

section of the case to address. *Id*. Appellants never raised any further objections to cumulative testimony during Dr. Naslund's testimony. Dr. Naslund testified he did not believe a CT scan was necessary. (Tr. 8, 1124:13-17). Dr. Naslund further testified he believed Dr. Follwell complied with the standard of care during his treatment of Ms. Beaver. (Tr. 8, 1131:19-24).

As a vascular surgeon, Dr. Naslund explained a superior mesenteric artery embolus due to atrial fibrillation likely caused the areas of segmental ischemia/necrosis noted by Dr. Leibold on December 3, 2012. (Tr. 8, 1134:1 to 1135:4). Dr. Naslund specifically responded to the opinions of Dr. Ruben, who testified it would be unlikely for a clot from undiagnosed atrial fibrillation to go to the mesenteric artery instead of the head or legs. (Tr. 8, 1138:2-9). Dr. Naslund explained atrial fibrillation is a common postoperative complication, and the superior mesenteric artery is the most common location for an embolus inside of the abdomen. (Tr. 8, 1138:2-22). Dr. Naslund noted that at Vanderbilt they remove an embolism from the superior mesenteric artery every other month. (Tr. 8, 1138:23-25).

Further responding to Dr. Ruben, Dr. Naslund explained an embolism would always pass the first branch of the superior mesenteric artery, or the middle colic artery. (Tr. 8, 1140:16-22). This explains why Ms. Beaver's transverse colon, which was served by the middle colic artery, was preserved. (Tr. 8, 1140:23-25). The clot would then fragment and shower into the smaller, *i.e.* terminal, vessels resulting in those segments of intestine supplied by the terminal vessels dying first. (Tr. 8, 1141:23 to 1142:4). Dr. Naslund explained the effects of an embolism to the superior mesenteric artery can manifest rapidly.

(Tr. 8, 1139:21-25). If a clot impedes the blood flow completely to a segment of intestine it will die in a matter of hours. (Tr. 8, 1139:25 to 1140:2). Again rebutting Dr. Ruben's testimony, Dr. Naslund testified the intestine would perforate within a few hours (as opposed to a few days) of its blood supply being occluded. (Trial testimony 8, 1140:3-8). Dr. Naslund further testified Appellants' theory that a perforation during Dr. Follwell's surgery followed by sepsis followed by hypoperfusion resulted in Ms. Beaver's segmental ischemic bowel was physiologically impossible. (Tr. 8, 1142:5-23).

Dr. Naslund also responded to the opinion of Dr. Ruben regarding the "necrotic omentum" observed by Dr. Leibold when he performed his second exploratory surgery on December 6, 2012. Dr. Ruben had testified the finding of a necrotic omentum indicated the ischemia/necrosis was not caused by a mesenteric artery embolism because the omentum does not obtain blood flow from the mesenteric artery. (Tr. 3, 461:16-20). Thus, Dr. Ruben contended the finding of "necrotic omentum" was evidence of systemic organ failure due to hypoperfusion caused by sepsis. Dr. Naslund explained when he has operated on abdominal perforations, the omentum "looks truly dreadful". (Tr. 8, 1159:20 to 1160:4). If the abdomen has "green stuff," the omentum is green; it can be dusky looking and dark gray because of the omentum's proximity to the bowel. (Tr. 8, 1160:5-11). Dr. Naslund discussed the pathology report, and noted that while Dr. Leibold described the omentum as necrotic, the pathologist determined the omentum was not, in fact, necrotic. (Tr. 8, 1161:17-22). The omentum was lying next to material in the abdomen that was highly diseased and it took on some of the same visual characteristics, but the omentum itself was not necrotic. (Tr. 8, 1161:17-22). Dr. Naslund explained the pathology report

was compatible with his opinion that a superior mesenteric artery embolism had caused the segmental death of Ms. Beaver's bowel. (Tr. 8, 1161:23 to 1162:1).

Respondents' colorectal surgery expert, Dr. Brabbee

Finally, Respondents called Dr. Gregory Brabbee, a colorectal surgeon. Prior to Dr. Brabbee's testimony, Appellants objected to his testimony on the grounds that his testimony would be cumulative to the prior experts. Respondents' counsel explained the anticipated testimony, and the trial court ruled as follows:

> THE COURT: Well, up this point, I will say that each one of the experts did have a different specialty. They gave their own parts.
>
> So with respect to that information, I believe that he wouldn't be cumulative. I mean, any extra testimony is always cumulative, but it's not cumulative to the point that it should be excluded.

(Tr. 8, 1204:2-8).

Dr. Brabbee is a board-certified colon and rectal surgeon who specializes in operating on the large and small intestines. (Tr. 9, 1223:14 to 1224:5; 1228:24 to 1229:8). As part of his practice, Dr. Brabbee operates on patients who have had prior hernia repairs and require bowel resections, similar to the surgery performed by Dr. Leibold. (Tr. 9, 1230:11-22). Dr. Brabbee testified if a patient had a frank perforation of the bowel during surgery he would expect to see fluid from the bowel enter the abdomen intraoperatively. (Tr. 9, 1238:10 to 1239:5). Dr. Brabbee testified that in his experience an injury to the bowel during surgery such as Dr. Follwell performed, would become apparent intraoperatively the vast majority of the time. (Tr. 9, 1239:6-11). Since Dr. Follwell did

not manipulate the bowel during surgery, Dr. Brabbee testified it was highly unlikely Dr. Follwell penetrated the small bowel during surgery. (Tr. 9, 1239:15-20).

Dr. Brabbee disagreed with Dr. Ruben's testimony that Ms. Beaver had a perforation at 3:00 p.m. on November 30, 2012 (shortly after Dr. Follwell's surgery), because Ms. Beaver did not have altered vital signs and her abdomen did not indicate peritonitis. (Tr. 9, 1246:3-9). Dr. Brabbee noted no indication of peritonitis when Dr. Follwell examined Ms. Beaver on the morning of December 1, 2012, and Dr. Brabbee testified it was very unlikely that Ms. Beaver had a bowel perforation since at least 3:00 p.m. the day before. (Tr. 9, 1252:13-25).

During Dr. Brabbee's testimony, Appellants objected that his testimony was cumulative. (Tr. 9, 1254:2-9). Respondents' counsel explained Dr. Brabbee's testimony to that point had been to set-up his opinions, and that he was moving quickly into Dr. Brabbee's opinions regarding the bowel surgery. (Tr. 9, 1254:11-15). The trial court allowed the testimony, and instructed Respondents' counsel to move through the information quickly to get to the end result. (Tr. 9, 1255:19-21).

Dr. Brabbee testified he did not believe Ms. Beaver had a bowel perforation either at the time of her surgery, or on discharge on the afternoon December 1, 2012. (Tr. 9, 1271:2-7; 1259:11-16). Dr. Brabbee further testified he did not believe Ms. Beaver had a bowel perforation since 3:00 p.m. on November 30, 2012 because her vital signs were normal. (Tr. 9, 1245:29 to 1246:7). Dr. Brabbee testified Dr. Follwell's performance of the surgery on November 30, 2012 complied with the standard of care. (Tr. 9, 1241:3-6). Dr. Brabbee also testified he did not believe a CT scan would have been helpful because

of the expected presence of free air in the abdomen from the laparoscopic surgery itself. (Tr. 9, 1256:8 to 1257:2). Dr. Brabbee testified he did not believe a patient who had a frank perforation of the bowel since 3:00 p.m. the day before would have had normal vital signs. (Tr. 9, 1259:6-16).

Dr. Brabbee testified based on his experience as a colorectal surgeon regarding Dr. Leibold's findings during his surgery on December 3, 2012. Dr. Brabbee noted Dr. Leibold's finding of a "rind" or "detritus" on the bowel wall during his exploratory surgery on December 3, 2012 (three days after Dr. Follwell's surgery). (Tr. 9, 1265:10-19). Dr. Brabbee explained that with a perforation there is succus bathing the small bowel that causes a degree of discoloration, or detritus, which is basically an inflammation of the tissue on the tissue of the bowel wall. (Tr. 9, 1265:20 to 1266:1). Dr. Brabbee testified he believed the perforation found by Dr. Leibold was a result of ischemic/necrotic bowel due to an embolic phenomenon. (Tr. 9, 1266:4-16). Dr. Brabbee testified he believed the perforation occurred at least twenty-four hours prior to Dr. Leibold's surgery due to this appearance. (Tr. 9, 1265:4-9; 1287:18-23). The localized segments of ischemia/necrosis suggested an embolism occurred in the peripheral branches of the superior mesenteric artery, as opposed to a major occlusion of the major artery that would have resulted in the entire small bowel being dead. (Tr. 9, 1267:3-12).

Dr. Brabbee also explained why the pathologist would not find any evidence of an embolism. Dr. Brabbee, as a colorectal surgeon, explained that when removing a necrotic bowel segment the surgeon would stay very close to the bowel wall to avoid jeopardizing the potential blood supply to the adjacent healthy bowel. (Tr. 9, 1267:13-17). As a result,

very little vascular tissue is removed and the pathologist does not, therefore, have very much of the mesenteric artery to examine for embolic phenomena. (Tr. 9, 1267:18-22). Dr. Brabbee noted the surgeon is concentrating on taking out the bowel and staying as close to the bowel wall as possible, as opposed to attempting to collect any evidence of an embolism in the blood vessels. (Tr. 9, 1269:7-14). He was not surprised the pathologist did not find a major clot or anything like that during examination of the surgical specimen. (Tr. 9, 1269:20-22).

Dr. Brabbee disagreed with Appellants' theory that the necrotic bowel occurred due to sepsis-induced profound hypotension. (Tr. 9, 1268:6-11). Dr. Brabbee noted this theory did not fit with Ms. Beaver's course of events, and hypoperfusion would not explain the segmental injury to the bowel. (Tr. 9, 1268:12 to 1269:3). Dr. Brabbee testified that an embolism would cause ischemic bowel within a few hours, and a perforation could develop from the ischemia within a few more hours. (Tr. 9, 1289:5-16).

Points Relied On

I. The trial court did not err in allowing experts from different specialties to offer opinions regarding their separate areas of expertise in response to the opinions of Appellants' experts on the vital issues of the case. (Response to Appellants' Point Relied On I).

Lozano v. BNSF Railway Company, 421 S.W.3d 448, 451 (Mo. banc 2014)

State v. Kidd, 990 S.W.2d 175, 180 (Mo. App. W.D. 1999)

Kummer v. Cruz, 752 S.W.2d 801, 809 (Mo. App. E.D. 1988)

State v. Gray, 347 S.W.3d 490, 503 (Mo. App. E.D. 2011)

Points Relied On

II. The trial court did not err in allowing Dr. Follwell to give the same opinion at trial that he gave in his deposition. (Response to Appellants' Point Relied on II)

Lozano v. BNSF Railway Company, 421 S.W.3d 448, 451 (Mo. banc 2014)

Whitted v. Healthline Management, Inc., 90 S.W.3d 470 (Mo. App. E.D. 2002)

Bailey v. Norfolk and Western Ry. Co., 942 S.W.2d 404 (Mo. App. E.D. 1997)

Missouri Supreme Court Rule 56.01(b)

ARGUMENT

I. The trial court did not err in allowing experts from different specialties to offer opinions regarding their separate areas of expertise in response to the opinions of Appellants' experts on the vital issues of the case. (Response to Appellants' Point Relied On I).

A. Standard of review.

"A trial court 'enjoys considerable discretion in the admission or exclusion of evidence, and, absent clear abuse of discretion, its action will not be grounds for reversal.'" *Lozano v. BNSF Railway Company*, 421 S.W.3d 448, 451 (Mo. banc 2014) (*quoting Moore v. Ford Motor Co.*, 332 S.W.3d 749, 756 (Mo. banc 2011)). A trial court abuses its discretion "when its 'ruling is clearly against the logic of the circumstances then before the court and is so unreasonable and arbitrary that it shocks the sense of justice and indicates a lack of careful, deliberate consideration.'" *Id*. (*quoting In re Care & Treatment of Donaldson*, 214 S.W.3d 331, 334 (Mo. banc 2007)). In fact, "'[i]f reasonable persons can differ as to the propriety of the trial court's action, then it cannot be said that the trial court abused its discretion.'" *Id*. (*quoting St. Louis Cnty. v. River Bend Estates Homeowners' Ass'n*, 408 S.W.3d 116, 123 (Mo. banc 2013)).

B. The trial court properly allowed expert testimony that related to the main issues of the case.

"'Evidence is said to be cumulative when it relates to a matter so 'fully and properly proved by other testimony' as to take it out of the area of serious dispute.'" *State v. Kidd*, 990 S.W.2d 175, 180 (Mo. App. W.D. 1999) (*quoting State v. McCauley*, 831 S.W.2d 741,

743 (Mo. App. E.D. 1992)). "'Evidence is not to be rejected as cumulative when it goes to the very root of the matter in controversy or relates to the main issue, the decision of which turns on the weight of the evidence.'" *Id.* (*quoting State v. Perry*, 879 S.W.2d 609, 613 (Mo. App. E.D. 1994)). In a medical negligence case, the "very root(s) of the matter in controversy" are causation and whether or not defendant breached the standard of care.

Respondents' expert testimony, given by physicians in separate specialties, focused on their areas of expertise and addressed the main issues in the case. As such, the trial court did not abuse its discretion in allowing Respondents' experts to offer their opinions regarding those main issues. Appellants identify seven areas of testimony that they believe represented inadmissible cumulative evidence:

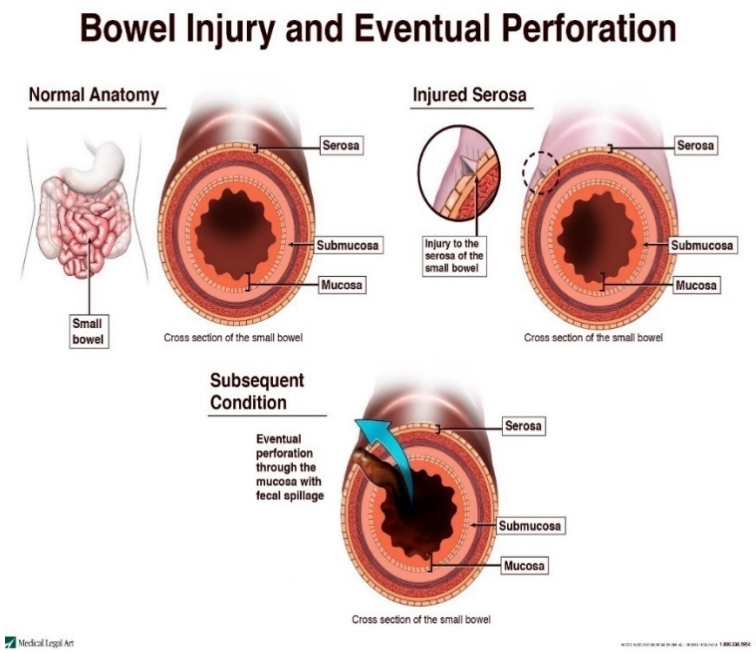
1. Whether Dr. Follwell deviated from the standard of care;
2. Whether a CT scan should have been ordered by Dr. Follwell;
3. Whether Ms. Beaver had any indication of a bowel injury following her November 30, 2012 surgery;
4. Whether Ms. Beaver had any signs or symptoms of a slow bowel leak as of 3:00 p.m. on November 30, 2012;
5. Whether Ms. Beaver had any signs or symptoms of a slow bowel leak on discharge at 2:00 p.m. on December 1, 2012;
6. Whether an embolism due to atrial fibrillation caused segmental necrosis of Ms. Beaver's bowel, as opposed to a bowel perforation from surgery; and
7. Whether Dr. Leibold's opinion that hypoperfusion caused the segmental necrosis was wrong.

(Appellants' Brief, pgs. 24 to 25). These areas of testimony go to the very root of the matter in controversy and are the main issues of this case, the decision of which turned on the weight of the evidence, and the trial court did not err in allowing expert testimony on those issues.

1. Causation

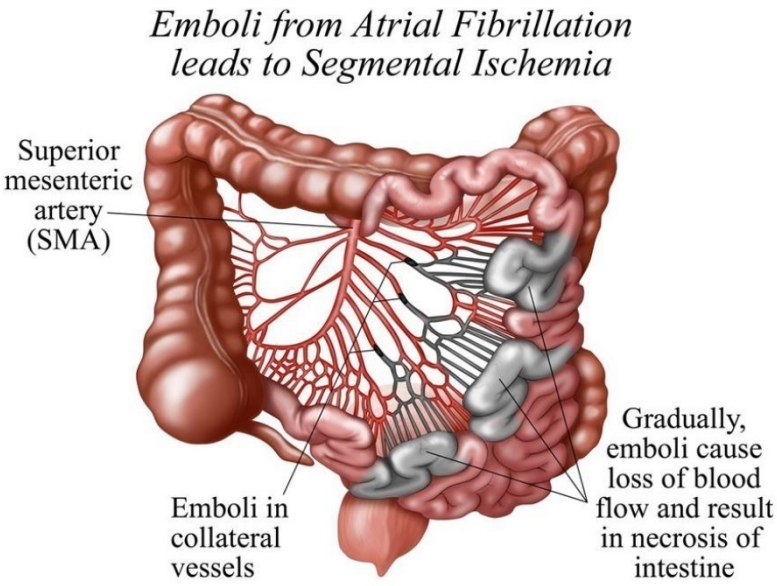
Respondents have presented two alternative theories of causation.

a. Respondents first expert, Dr. Grant Bochicchio, an expert board-certified in acute and critical care surgery, with specific expertise in laparoscopic hernia repair, testified he did not believe Ms. Beaver had a bowel perforation either at the time of Dr. Follwell's surgery, or at any time up until her discharge on the afternoon of December 1, 2012. He testified Ms. Beaver most likely had a superficial serosal tear (as opposed to an actual perforation), which could have occurred when a trocar was placed during Dr. Follwell's surgery and, understandably was undetected intraoperatively despite Dr. Follwell's best efforts. He testified he believed the serosal tear gradually eroded and finally ruptured into a full perforation sometime after she had been discharged from the hospital on December 1, 2012. Dr. Bochicchio testified Dr. Follwell did everything appropriately during Ms. Beaver's admission from the evening of November 30, 2012 through the afternoon December 1, 2012. He further testified Dr. Follwell appropriately discharged Ms. Beaver from Lincoln County Medical Center on the afternoon of December 1, 2012 as her injury was not then manifest.



b. Respondents next presented an alternative theory of causation through board certified expert witnesses Dr. Morton Rinder, cardiology, Dr. Thomas Naslund, vascular surgery, and Dr. Gregory Brabbee, colorectal surgery. Drs. Rinder, Naslund and Brabbee testified Ms. Beaver did not suffer any type of injury to her bowel during the surgery performed by Dr. Follwell. They further opined Ms. Beaver did not have a frank perforation at the time of her discharge from the hospital at 2:00 p.m. on December 1, 2012. Rather, Ms. Beaver developed a bowel perforation sometime after her discharge on December 1, 2012 as the result of an unrelated, but contemporaneous process. Specifically, they contended Ms. Beaver suffered a previously undiagnosed cardiac condition called atrial fibrillation, or A-fib. This condition causes a blood clot to form in the left atrium of a patient's heart. Under the right circumstances, the clot may break apart and smaller pieces called "emboli" flow through the arterial system until they reach a vessel that is so small

in diameter the clot cannot pass through it. At that point, the emboli become lodged and occlude the vessel. Once this occurs, oxygenated blood can no longer pass downstream, and the tissue served by the occluded vessel becomes oxygen deprived, or ischemic, and dies.



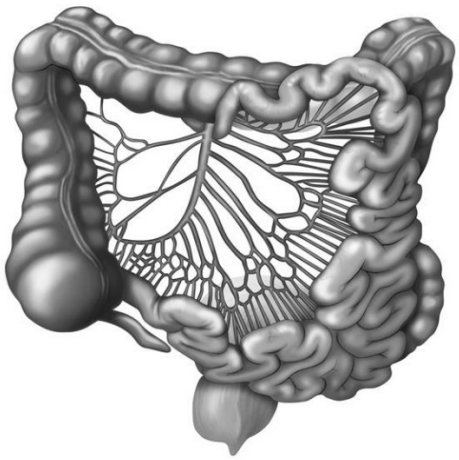
This theory of causation was initially raised and refuted by Plaintiffs' own retained expert, Dr. Garry Ruben, during his direct examination. Thus, Respondents were compelled to present testimony which analyzed the probability of atrial fibrillation as a cause of the three distinct segments of ischemic bowel found by Dr. Liebold. The analysis and testimony on this issue was necessarily complex and required testimony from experts board certified in cardiology (Dr. Rinder), vascular surgery (Dr. Naslund) and colorectal surgery (Dr. Brabbee).

In order to thoroughly and coherently educate the jury regarding this complex theory of causation, Respondents presented testimony of these experts, each adding their own piece of the complex puzzle.

Cardiologist Morton Rinder, M.D. testified regarding the pathophysiology of A-fib, including how it develops, and how a thrombus in the left atrium may embolize and travel downstream. Most importantly, he testified regarding why he believed Ms. Beaver had suffered from paroxysmal ("silent") A-fib, for years, yet had not been previously diagnosed as such. This was important given the trial testimony of Appellants' general surgery expert, Dr. Ruben, that Ms. Beaver had never had atrial fibrillation in the past.

Dr. Thomas Naslund, a board certified vascular surgeon, built upon the testimony of Dr. Rinder, describing the vascular anatomy and explaining how emboli from the left atrium can travel through the arterial system until they became lodged in the smaller vessels of the mesenteric artery which supplies blood to the bowel. Dr. Naslund further testified how this process in Ms. Beaver resulted in the specific conditions identified by Dr. Liebold upon his exploratory laparoscopy and laparotomy, i.e. three distinct segments of ischemic bowel, rather than generalized ischemia of the entire bowel, which would be expected if her ischemia was due to a systemic disease, such as profound hypotension due to sepsis caused by a perforated bowel as Appellant's contend.

Sepsis / Hypotension leads to Generalized Ischemia



2. Standard of Care

Respondents acknowledge, with the exception of Dr. Rinder, each of Respondents' retained expert witnesses testified that in their opinion Dr. Follwell did not breach the standard of care. In considering whether it was appropriate for them to do so, it is important to note that while Dr. Bochicchio, Dr. Naslund and Dr. Brabbee are all board-certified specialists, they are also all board certified general surgeons. Each has the same training and qualification as Dr. Follwell, though each of them has had additional fellowship training in order to specialize. Accordingly, each of them has the appropriate foundation upon which to offer their opinion regarding standard of care. As such, it would be illogical for any one of these witnesses to testify regarding matters within their specific areas of expertise, without also testifying regarding standard of care, which is also within their area of training and expertise. Certainly, in the context of a week-long trial, it is not

> excessively repetitive for three witnesses to be asked a few questions each concerning whether or not Respondent breached the standard of care. Indeed, one can imagine Appellants' counsel, in closing argument, pointing out that these eminently qualified witnesses had not testified regarding standard of care on a matter within their underlying specialty and implying that their opinions must not have been supportive of the defense.

Appellants do not dispute that the scientific knowledge of Respondents' experts assisted the jury in understanding facts in issue, as required by §490.065 RSMo. Likewise, Appellants do not dispute the topics of testimony at issue are the main issues in the case. Appellants only basis for attempting to exclude this evidence is on the grounds that the testimony was cumulative. Exclusion of this key evidence merely on cumulative grounds would be improper.

In *Kummer v. Cruz*, 752 S.W.2d 801, 809 (Mo. App. E.D. 1988), the Eastern District reversed the trial court when the trial court excluded expert testimony. In *Kummer*, the plaintiff presented testimony from an expert witness, who testified an episiotomy performed by the defendant lacerated the plaintiff's sphincter muscle. *Id*. at 804. Subsequently, plaintiff attempted to adduce testimony from the plaintiff's subsequent treating physician that the episiotomy had, in fact, caused the lacerated sphincter muscle. The trial court excluded the testimony of the treating physician as being cumulative. On appeal, the defendant physician argued the testimony of the subsequent treating physician would have been merely cumulative of the testimony of plaintiff's expert and was, therefore, properly excluded. The Eastern District rejected this argument, noting "evidence

should not be rejected as cumulative when it goes to the very root of the matter in controversy or relates to the main issue, the decision of which turns on the weight of the evidence introduced by the respective parties." *Id.* at 808 (citations omitted). In *Kummer* the Eastern District noted that the subsequent treating physician's testimony dealt directly with the central issue in the case, i.e. causation, and the issue "controlled the verdict and by its nature turned on the weight of the evidence introduced by the respective parties." *Id.* at 808 – 809. The Court concluded "under these circumstances it cannot be regarded as merely cumulative." *Id.* at 809.

The case currently before the Court is nearly identical in that Respondents presented the testimony of three expert witnesses testifying regarding one of Respondents' alternative theories of causation. Each of the three experts offered testimony based upon their specific area of expertise, and further testified as to how their piece of the puzzle fit cohesively and consistently with the opinions of the other two expert witnesses and with the underlying facts as set forth in the medical records.

As in *Kummer*, the testimony at issue dealt directly with a central issue in the case, causation, and the issue "controlled the verdict and by its nature turned on the weight of the of the evidence introduced by the respective parties." *Kummer* 808 – 809.

In their Replacement Brief, Appellants seek to sidestep the rationale of *Kummer* by arguing that the challenged evidence should have been excluded as not being "legally relevant". As cited in Appellants' Substitute Brief at pages 22 and 23:

> Legal relevance [...] is a determination of the balance between the probative and prejudicial effect of the evidence" which "requires the trial court to weigh the probative value, or usefulness, of the evidence against its costs,

> specifically the dangers of unfair prejudice, confusion of the issues, undue delay, misleading the jury, waste of time, or *needless presentation of cumulative evidence." Id.* (internal quotations omitted) (emphasis added). "If the cost outweighs the usefulness, the evidence is not legally relevant *and should be excluded." Id.* (quoting *Adkins v. Hontz,* 337 S.W.3d 711, 720 (Mo. App. W.D. 2011) (emphasis added).

Appellants' argument, however, disregards that portion of the Courts' ruling in *Kummer* that limits its application to those matters which "go to the very root of the matter in controversy or relate to the main issue, the decision of which turns on the weight of the evidence introduced by the respective parties." *Kummer* at 808. Whereas a legal relevance test seeks to determine whether or not the probative value of evidence is outweighed by the dangers of unfair prejudice, confusion, delay, etc., when the matter at issue goes to the core issues of the case, such as standard of care and causation, which a party is required to prove by a preponderance of the evidence, and which thereby, "turns upon the weight of the evidence introduced by the party," its probative value cannot be said to be outweighed by any potential "cost" and as such cannot be excluded as legally irrelevant. Put more succinctly, evidence concerning standard of care and causation cannot be "legally irrelevant". This is not to argue, however, that there is no limit to the number of experts which could testify to such opinions. To the contrary, there is, in fact, a point at which additional expert testimony concerning standard of care or causation would be merely "cumulative" and thus appropriately excluded. That point comes when the subject of the testimony "relates to a matter so 'fully and properly proved by other testimony' as to take it out of the area of serious dispute." *State v. Kidd*, 990 S.W.2d 175, 180 (Mo. App. W.D. 1999) (*quoting State v. McCauley*, 831 S.W.2d 741, 743 (Mo. App. E.D. 1992)). As such,

when the testimony in question relates to a central issue in the case, i.e. standard of care or causation, the point at which the trial court should exclude further testimony on the subject is the same point at which the Court should grant a directed verdict.

As in *Kummer*, Respondents' expert testimony cannot be regarded as "merely cumulative" because this testimony went to the key issues of the case. Appellants' retained expert, Dr. Ruben, dismissed Respondents' theory that a blood clot from "undiagnosed" atrial fibrillation traveled to the superior mesenteric artery to cause segmental ischemia as "absurd, and that's putting it mildly." (Tr. 3, 472:21-24). To rebut Appellants, the trial court properly allowed testimony from Dr. Rinder, a cardiologist, describing how Ms. Beaver could have suffered from undiagnosed atrial fibrillation; from Dr. Naslund, a vascular surgeon, to explain how blood clots frequently travel to the superior mesenteric artery and why Dr. Leibold's perceived "necrotic omentum" did not indicate otherwise; and from Dr. Brabbee, a colorectal surgeon, regarding how the bowel is removed and why there would be no sign of an embolism visible to the pathologist. Likewise, testimony by Dr. Bochicchio, Dr. Naslund and Dr. Brabbee that they believed Dr. Follwell met the standard of care went to a key issue of the case. The trial court properly exercised its discretion in allowing this testimony because it went to one of the key issues of the case.

C. Expansive testimony of Appellants' retained expert required response from numerous experts with different specialties.

The expansive testimony of Appellants' retained expert necessitated a response from experts in multiple disciplines. Appellants' retained expert, a general and vascular surgeon, offered opinions in the field of general surgery regarding the performance of the

laparoscopic ventral hernia repair; critical care medicine regarding the management of a post-operative patient; cardiology regarding the development and diagnosis of atrial fibrillation; vascular surgery regarding whether emboli would and could travel to the bowel causing segmental ischemia; and colorectal surgery regarding intraoperative signs of a bowel perforation, the methodology of bowel resection, and the reason the pathologist found no evidence of an embolism in the segment of bowel resected from Ms. Beaver by Dr. Leibold.

Appellants do not raise any objection to the testimony of either Dr. Follwell (except as noted below) or Dr. Bochicchio, a general surgeon and critical care physician. Instead, they argue Dr. Rinder, a cardiologist, Dr. Naslund, a vascular surgeon, and Dr. Brabbee, a colorectal surgeon, should have been barred from testifying, claiming their testimony was cumulative. These experts all have different specialties, and offered testimony from the perspective of their own disciplines. Furthermore, each expert witness provided testimony on issues within his own area of expertise to rebut the expansive opinions of Appellants' retained expert.

Appellants essentially argue the number of expert witnesses called by a party should be arbitrarily limited, when no such rule exists in Missouri. Instead, the admission of expert testimony rests within the sound discretion of the trial court. *State v. Gray*, 347 S.W.3d 490, 503 (Mo. App. E.D. 2011). The appropriateness of this approach is shown by this case. If the trial court had arbitrarily limited Respondents' expert witnesses, Respondents would have lost the ability to respond to many of the numerous opinions given by Dr. Ruben in Appellants' case.

For example, Appellants' retained expert, though not a cardiologist, rejected Respondents' theory that Ms. Beaver had undiagnosed atrial fibrillation that led to an embolism in her superior mesenteric artery as absurd. Appellants' retained expert, though not a cardiologist, reviewed Ms. Beaver's prior cardiac history in an effort to convince the jury she had never been diagnosed with atrial fibrillation prior to her surgery. Appellants' retained expert further testified Ms. Beaver would have needed to be in a continuous state of atrial fibrillation for as much as two weeks to develop a clot. If the trial court had cut off expert testimony after Dr. Bochicchio, these opinions would have gone essentially unchallenged.

Faced with Appellants' cardiology opinions, Respondents required the testimony of Dr. Rinder, a board certified cardiologist, to explain to the jury how Ms. Beaver could have had atrial fibrillation without a prior diagnosis. Dr. Rinder explained to the jury the difficulty in diagnosing certain types of atrial fibrillation; the short amount of time a patient needed to be in atrial fibrillation to develop a clot; and the randomness of when that clot might enter the vascular system. While Respondents' other experts mentioned atrial fibrillation briefly, Dr. Rinder, as a cardiologist, explained in detail to the jury how intermittent atrial fibrillation could have gone undiagnosed for years, and caused a blood clot that traveled to the terminal branches of the superior mesenteric artery providing blood and oxygen to Ms. Beaver's bowel.

Next, Appellants' retained expert, testifying as a non-board certified vascular surgeon, told the jury that when a patient does develop a clot from atrial fibrillation the clot almost always travels to the head or neck, and sometimes the arms or legs, but almost never

to the superior mesenteric artery. Again, if the trial court had not exercised its discretion to allow Respondents to call a vascular surgeon to testify, the jury would only have had the opinions of Appellants' expert, testifying in his capacity as a vascular surgeon, regarding the frequency of emboli to the bowel. To counter these opinions, Respondents called a board certified vascular surgeon, Dr. Naslund, to explain the anatomy of the vascular system, how the embolism travels through the vasculature, and how an embolism could go to the peripheral branches of the superior mesenteric artery and cause the segmental ischemia/necrosis found by Dr. Leibold. While Dr. Rinder testified primarily regarding the development of clots due to atrial fibrillation, Dr. Naslund testified primarily as a vascular surgeon about how those clots can, and frequently do, travel to the abdomen and cause segmental ischemia in the mesenteric vascular tree.

Dr. Naslund also responded to Appellants' retained expert's opinion regarding the apparent "necrotic omentum" observed by Dr. Leibold during his surgery. While neither Dr. Follwell, Dr. Bochicchio, Dr. Rinder, nor Dr. Brabbee discussed the "necrotic omentum," Dr. Naslund explained the omentum derives its blood flow from the colic artery rather than the mesenteric artery, which supplies the bowel. Dr. Naslund also noted the pathologist did not find any necrosis when the omentum was examined pathologically. Thus, though the omentum appeared necrotic to Dr. Leibold because it was in contact with the bowel contents, it was not, in fact, necrotic. As such, Dr. Leibold's finding was not evidence Ms. Beaver's perforated bowel was due to hypotension from sepsis as Appellants' expert claimed.

Finally, Appellants' retained expert offered opinions in the field of colorectal surgery, such as diagnosing a bowel perforation intraoperatively, and the fact there was no reference to finding an embolism in any of Ms. Beaver's medical records from the bowel resection. In response to these opinions, Respondents called Dr. Brabbee, a colorectal surgeon. Dr. Brabbee described what would be observed if there had been an intraoperative injury during Dr. Follwell's surgery, and the lack of any such indications. Dr. Brabbee, as a colorectal surgeon, rebutted Appellants' claim that bowel would have to be ischemic due to A-fib for two to four days before necrosing and perforating and such a process would result in a perforation larger than 0.2 cm. Dr. Brabbee further described how a surgeon would resect a portion of bowel in a manner to preserve as much of the mesenteric artery as possible without dissecting the vessels supplying blood to the bowel, thereby explaining the lack of evidence of embolism in the medical records, including in the pathology report.

Appellants' quote from the opinion of *Grab ex rel. Grab v. Dillon*, 103 S.W.3d 228, 240 (Mo. App. E.D. 2003), for the proposition that cumulative evidence should generally be excluded fails to note the context of the quote. In *Grab*, the Eastern District affirmed the trial court's exclusion from evidence of a letter to the plaintiff's expert from an unidentified pathologist. *Id.* A contested issue in *Grab* was whether pathology slides showed a true epididymis. *Id.* at 238. An unidentified pathologist sent a letter to the plaintiff's expert stating he had reviewed the slides and found them to contain true epididymis. *Id.* The trial court excluded the letter from evidence because the expert had testified at his deposition that he had not relied on the letter, and because the plaintiff had

already presented evidence from numerous other pathologists stating the slides contained true epididymis. *Id.*

The Eastern District held the trial court did not abuse its discretion in excluding the letter because the credibility of the letter depended on the credibility of the pathologist, who was unknown. *Id.* at 240. The Eastern District also noted the plaintiff had not shown any prejudice in having the letter excluded because the pathologist came to the same conclusion as **five** other pathologists who reviewed the slides. *Id.* The Eastern District noted no prejudice occurred because numerous other pathologists had already expressed the same opinion. *Id.* The *Grab* opinion certainly does not stand for the proposition that a trial court should arbitrarily limit the number of experts called by a party.

Also, Appellants' reference to the Second Circuit's thirty-two year old opinion in *Haskell v. Kaman Corp.*, 743 F.2d 113, 122 (2d Cir. 1984), is misplaced. The Second Circuit's decision had nothing to do with the number of experts testifying in a medical malpractice case in Missouri. Rather, in *Haskell* the plaintiff, in an age discrimination case, attempted to offer "pattern and practice" testimony by ten former employees who had been terminated over an eleven year period. *Id.* at 121. The Second Circuit held the sample of ten terminations in an eleven year period was not statistically significant enough to make the statistical evidence probative. *Id.* The Second Circuit also found the testimony of six of the former employees regarding the circumstances of their termination was insufficient to show a pattern and practice of discrimination; and any probative value of the testimony was outweighed by the prejudice of former employees testifying regarding their terminations in an age discrimination case. *Id.* at 122. Thus, the Second Circuit found that

the proposed testimony lacked any probative value and was nonetheless highly prejudicial and was thereby properly excluded. As such, the *Haskell* case is distinguishable from the present case in that the questioned testimony in the present case goes specifically to standard of care and causation.

Appellants do not cite to any authority for their suggestion that the admission of expert testimony should be arbitrarily limited based solely on the number of experts. As the trial court noted, each of Respondents' experts had their own specialties and each expert had his own piece of the puzzle to present to the jury. Respondents' experts from multiple specialties were necessary because of the expansive opinions presented by Appellants' retained expert. Appellants could have chosen to retain separate experts in the fields of cardiology, vascular surgery, and colorectal surgery. Instead, Appellants elected to have one expert express far-reaching opinions in all of these fields. This was Appellants choice, and the trial court acted well within its discretion in allowing the testimony of Respondents' experts, who were board certified in each of the specialties on which Appellants' retained expert testified.

Respondents anticipate Appellants may suggest that their election to retain only one expert witness related to their assessment that this was a "cap case" and, therefore, did not warrant expenditure of additional sums. Respondents point out, however, this matter only became a "cap case" when Appellants' counsel failed to file the necessary affidavits pertaining to medical bills as required by §490.525.4 RSMo. Absent said failure, Appellants would arguably have been able to admit evidence of medical bills totaling nearly two million dollars.

D. The trial court properly monitored the evidence for cumulative testimony.

When considering the admission of potentially cumulative testimony, the trial court has discretion in balancing the probative and prejudicial value of evidence. *Mathes v. Sher Express, L.L.C.*, 200 S.W.3d 97, 112 (Mo. App. W.D. 2006). The trial court further has discretion to decide when the presentation of cumulative evidence should cease. *Id*. A trial court abuses its discretion "when its 'ruling is clearly against the logic of the circumstances then before the court and is so unreasonable and arbitrary that it shocks the sense of justice and indicates a lack of careful, deliberate consideration.'" *Lozano*, 421 S.W.3d at 451 (citation omitted).

Here, the trial court clearly gave careful and deliberate consideration to whether or not the expert testimony offered by Respondents should be barred as cumulative. The trial court ensured that the expert testimony did not become overly repetitive. The trial court noted the fact that Respondents had more experts than Appellants was not itself a reason to exclude that testimony. (Tr. 2, 325:3-6). Since the testimony of the experts overall would not be excluded, the trial court advised Appellants' counsel that the court would need to take the testimony as it came, and specifically instructed Appellants' counsel to object as the testimony came in to avoid any cumulative testimony. (Tr. 7, 963:5-21). Nevertheless, after the trial court denied Appellants' motion to bar any testimony from Dr. Rinder as cumulative, Appellants did not make any objections to any of the specific testimony of Dr. Rinder. Likewise, Appellants only objected once during the testimony of Dr. Naslund and once during the testimony of Dr. Brabbee. Appellants' brief recites

multiple excerpts of testimony Appellants allege should have been barred as cumulative, but Appellants did not object to most of the questions that elicited that testimony.

As noted hereinabove, the trial court is vested with broad discretion with regard to admission of testimony and determination as to whether such testimony is cumulative in nature. The logic of this broad grant of discretion is inescapable. Unlike an appellate court reviewing a transcript, the trial judge is uniquely positioned to evaluate the testimony of witnesses, assess their credibility, their effectiveness as witnesses, and to gauge the impact of a given witness' testimony upon the jury. Therefore, as noted, the trial court can only be said to abuse its discretion "when its 'ruling is clearly against the logic of the circumstances then before the court and is so unreasonable and arbitrary that it shocks the sense of justice and indicates a lack of careful, deliberate consideration.'" *Lozano v. BNSF Railway Company*, 421 S.W.3d 448, 451 (Mo. banc 2014) (*quoting In re Care & Treatment of Donaldson*, 214 S.W.3d 331, 334 (Mo. banc 2007)). In fact, "'[i]f reasonable persons can differ as to the propriety of the trial court's action, then it cannot be said that the trial court abused its discretion.'" *Id.* (*quoting St. Louis County v. Riverbend Estates Homeowner's Association*, 408 S.W.3d 116, 123 (Mo. banc 2013)). This would appear to suggest that any finding by an appellate court that the trial court abused its discretion must of necessity be unanimous.

E. Judicial economy did not require the exclusion of Respondents' experts.

Finally, this case demonstrates why a trial court, exercising its discretion to determine the scope of testimony, is the best arbiter of "judicial economy" as opposed to

an arbitrary limitation on the number of witnesses called by a party. Here, the parties completed the jury trial within five days. Considering the wide range and complexity of issues raised by Appellants' experts, five days is hardly an excessive length of time for a jury trial. As noted above, the experts called by Respondents were in direct response to the expansive opinions of Appellants' retained expert, and the trial court clearly gave careful consideration prior to exercising its discretion in allowing their testimony.

II. The trial court did not err in allowing Dr. Follwell to give the same opinion at trial that he gave in his deposition. (Response to Appellants' Point Relied on II)

A. Standard of review.

"A trial court 'enjoys considerable discretion in the admission or exclusion of evidence, and, absent clear abuse of discretion, its action will not be grounds for reversal.'" *Lozano v. BNSF Railway Company*, 421 S.W.3d 448, 451 (Mo. banc 2014) (*quoting Moore v. Ford Motor Co.*, 332 S.W.3d 749, 756 (Mo. banc 2011)). A trial court abuses its discretion "when its 'ruling is clearly against the logic of the circumstances then before the court and is so unreasonable and arbitrary that it shocks the sense of justice and indicates a lack of careful, deliberate consideration.'" *Id*. (*quoting In re Care & Treatment of Donaldson*, 214 S.W.3d 331, 334 (Mo. banc 2007)). In fact, "'[i]f reasonable persons can differ as to the propriety of the trial court's action, then it cannot be said that the trial court abused its discretion.'" *Id*. (*quoting St. Louis Cnty. v. River Bend Estates Homeowners' Ass'n*, 408 S.W.3d 116, 123 (Mo. banc 2013)).

B. Dr. Follwell did not express a new opinion regarding the cause of Ms. Beaver's injury.

Appellants' claim that Dr. Follwell expressed a "new opinion" at trial is simply inaccurate. Appellants argue Dr. Follwell's causation opinion that "Ms. Beaver's injuries must have occurred due to a vascular injury directly injuring or cutting the blood vessel or occlusion from a clot or emboli" was a "new opinion." As the trial court found, Dr. Follwell testified at his deposition that he believed Ms. Beaver's ischemic and necrotic bowel occurred as a result of a vascular injury, either from a direct injury, or a clot or emboli. Dr. Follwell did not offer a new causation opinion at trial – rather he restated the same causation opinion he gave during his deposition. Dr. Follwell testified at his deposition as follows:

> Q. Depending on whether the bowel was necrotic or dying in that area, you may have had to have taken out a portion of it and sew the bowel back together?
>
> A. Right. I would not anticipate the bowel to be necrotic or dying.
>
> Q. Why not?
>
> A. For a hole or a perforation, that's not common.
>
> * * *
>
> Q. But 24 hours later, you don't think there would have been dead bowel?
>
> A. No.
>
> Q. I'm sorry. Explain that to me again.

A. **I wouldn't anticipate dead bowel for any reason, unless there was some sort of vascular injury**.

(R.L.F. p. 24, Deposition of Dr. Follwell, 93:24 to 94:21) (emphasis added).

While originally couched as a hypothetical, Dr. Follwell further testified during his deposition specifically about his opinion that a vascular injury, instead of a bowel perforation, caused Ms. Beaver's bowel injury. Dr. Follwell testified as follows:

Q. Do you believe that the frankly ischemic bowel measuring 60 centimeters was a result of the bowel perforation?

A. No.

Q. Why not?

A. I believe bowel perforation was related to the irritable (sic) bowel.

Q. So the bowel perforation was a result of the ischemia?

A. Yes.

Q. The ischemia came first?

A. That's what I believe.

Q. And what caused the ischemia?

A. I don't know.

Q. What are the general causes of ischemia?

A. Compromise to the blood supply at the time of surgery, emboli from whatever cause, whether they be blood clots, when (sic) they be fragments of arthrosclerotic [sic] tissue.

* * *

Q. Okay. Fair enough. I asked you what caused her ischemic bowel as seen by Dr. Leibold, and you told me you didn't know?

A. Correct.

Q. Then I asked you what the potential causes are. So we'll go with her potential causes.

A. Injury of the blood supply at the time of surgery.

Q. And are you talking about the November 30th surgery - -

A. Yes.

Q. -- or emboli?

A. Emboli or scar tissues which could potentially compromise the blood supply.

MR. GONNERMAN: He mentioned one other, which may be part of the emboli, which was the fragment of arthrosclerotic [sic] tissue.

THE WITNESS: Yeah.

Q. Is that a clot?

A. Blood clots or pieces of arthrosclerotic [sic] tissue; they are all emboli.

(R.L.F., p. 26, 101:5 to 103:3) (emphasis added).

As set forth above, Dr. Follwell expressly testified during his deposition that he believed Ms. Beaver's necrotic bowel found by Dr. Leibold could only result from a vascular injury, as opposed to a bowel perforation that, in turn, caused the necrotic bowel. In response to Appellants' objection at trial, Respondents couched the causation question

to Dr. Follwell to exactly mirror his deposition testimony. During Dr. Follwell's deposition, he testified he would not expect any necrotic bowel unless there had been a vascular injury. At trial, Dr. Follwell testified the necrotic bowel found by Dr. Leibold could only be the result of a vascular injury. Dr. Follwell testified at trial as follows:

> Q. (By Mr. Gonnerman) Doctor, I'll restate the question I asked you a moment ago. Do you have an opinion whether or not dead bowel, necrotic bowel, such as Dr. Leibold found, could occur as a result of anything other than a vascular injury in this patient?
>
> Ms. Gunn: Same objection, Your honor.
>
> The Court: Overruled. He can answer.
>
> A. No.
>
> Q. (By Mr. Gonnerman) You do have an opinion?
>
> A. Yes, I have an opinion.
>
> Q. And that opinion is?
>
> Ms. Gunn: Same objection.
>
> The Court: That will be overruled. He can answer.
>
> A. That it was a vascular injury.
>
> Q. (By Mr. Gonnerman) All right. Doctor, do you have – What are the potential causes or the potential vascular injury mechanisms, if you will, for dead bowel, necrotic bowel, such as Dr. Leibold found on that Monday afternoon?
>
> A. Vascular injury could be directly injuring or cutting the blood vessel or occlusion from a clot and/or emboli.

(Tr. 5, 788:25 to 789:22).

As the trial court found, this question and answer at trial directly matched Dr. Follwell's testimony during his deposition. In fact, Respondents modified the causation question at trial slightly so it would expressly track Dr. Follwell's deposition testimony. Respondents' counsel originally asked Dr. Follwell "Doctor, do you have an opinion as to whether or not Ms. Beaver's ischemia was due to low blood pressure or sepsis from low blood pressure, or whether it was due to something else?" (Tr. 5, 785:7-10). Appellants objected, and the following exchange occurred with the trial court:

> THE COURT: So let me ask this. Right now when you're going to ask what caused it, how do you - -
>
> MR. GONNERMAN: He's going to say it's a vascular issue. It was an embolic event, the same thing he said on [page] 94 [of his deposition].
>
> He said, I wouldn't anticipate for any reason dead bowel unless there was a vascular injury.
>
> THE COURT: Can you just kind of rephrase it and ask that instead of asking this exact question?
>
> MR. GONNERMAN: Sure.
>
> THE COURT: Because you're getting to the same thing. So instead of saying, you can say - -
>
> MR. GONNERMAN: Would you anticipate necrotic or dead bowel.
>
> THE COURT: Right.
>
> MR. GONNERMAN: For any reason other than for a vascular injury.
>
> THE COURT: Right. Because that way you get to it, but you're not really - - You're getting to what he's already testified to and then it's without - -
>
> MR. GONNERMAN: It's the same thing.

THE COURT: - - skipping the words that they don't know about anyway.

MR. GONNERMAN: Yeah. So I'll just go straight to that.

(Tr. 5, 787:5 to 788:4).

Respondents' counsel modified the question to expressly match the deposition testimony by asking "Do you have an opinion whether or not dead bowel, necrotic bowl, such as Dr. Leibold found, could occur as a result of anything other than a vascular injury in this patient?" (Tr. 5, 789:1-4). As the trial court noted, the question and answer was the same as Dr. Follwell's deposition testimony.

Appellants' reliance on *Whitted v. Healthline Management, Inc.*, 90 S.W.3d 470 (Mo. App. E.D. 2002), is misplaced. In *Whitted*, the Eastern District affirmed a trial court's grant of a new trial in a very different scenario. In *Whitted*, the defendant's expert testified at his deposition it was difficult to say why the patient died, but he presumed the patient died from a malignant arrhythmia. *Id*. at 475-476. At trial, the expert testified the patient died from cell necrosis. *Id*. at 477. The trial court granted a new trial on the basis that the expert had given a previously undisclosed opinion, and the Eastern District determined the trial court did not abuse its discretion in granting a new trial. *Id*. Unlike the expert in *Whitted*, here Dr. Follwell clearly testified at his deposition that he did not believe necrotic bowel would be caused by anything other than a vascular injury, and Dr. Follwell offered the exact same testimony at trial.

Similarly, this court's decision in *Bailey v. Norfolk and Western Ry. Co.*, 942 S.W.2d 404 (Mo. App. E.D. 1997), does not support Appellants' position because Dr.

Follwell did not offer a new opinion. In *Bailey*, the trial court instructed the jury to disregard a defense expert's opinion on the grounds the opinion differed from the expert's deposition testimony, and the Eastern District held the trial court did not abuse its discretion. *Id*. at 415. In *Bailey*, a railroad worker brought a Federal Employer's Liability Act claim alleging poor sleep conditions over twenty-five years contributed to the worker's coronary artery disease and gastritis. *Id*. at 406-408. The defendant railroad's expert testified at his deposition that he did not believe working conditions caused the plaintiff's heart disease, but he could not rule out that work conditions played an insignificant or minor role in the plaintiff's heart disease. *Id*. at 412-413. At trial, the expert completely ruled out any contribution of work conditions to the plaintiff's heart condition – even a minor contribution. *Id*. at 413.

Unlike in *Whitted* and *Bailey*, here, Dr. Follwell testified in his deposition that he did not believe necrotic bowel could have been caused by anything other than a vascular injury. At trial, Dr. Follwell testified he did not believe necrotic bowel could have been caused by anything other than a vascular injury. Dr. Follwell simply did not offer a new opinion.

C. Dr. Follwell disclosed to Appellants he possessed causation opinions, but Appellants elected not to depose Dr. Follwell to discover those opinions.

As set forth above, Dr. Follwell did not offer a new causation opinion at trial. Regardless, even if Dr. Follwell had offered a causation opinion beyond those offered at

his deposition, Respondents notified Appellants after Dr. Follwell's deposition that he possessed causation opinions, and Appellants elected not to redepose Dr. Follwell. During Dr. Follwell's deposition, Respondents' counsel specifically advised Appellants' counsel as follows:

> MR. GONNERMAN: Amy, just so the record is clear: He hasn't looked at all of her subsequent course to see the events that led up to her death. He may look at that. I may ask him to do that. If he does have an opinion on the cause of death, I'll let you know in plenty of time. But I don't anticipate that that's going to be the case.

(R.L.F., p. 27, 105:18:24). Appellants' counsel confirmed her understanding that causation opinions were reserved:

> MS. GUNN: And any other opinions to causation are reserved; is that correct?
>
> MR. GONNERMAN: That's correct.

(R.L.F., p. 28, 108:5-7).

Dr. Follwell's deposition was taken on December 8, 2014. On July 28, 2015, Respondents disclosed their retained and non-retained expert witnesses, and Respondents identified Dr. Follwell as a non-retained expert. (R.L.F., p. 84). For retained experts, Missouri Supreme Court Rule 56.01(b)(4) allows a party, through interrogatories, to obtain the identification of the other party's expert witnesses, the witness' qualifications, and the general nature of the subject matter of the expert's testimony. For non-retained experts, pursuant to Rule 56.01(b)(5), a party need only disclose the non-retained expert's name, address, and field of expertise. Though not required by Rule 56.01(b)(5), Respondents further disclosed the subject matter of Dr. Follwell's anticipated testimony, and expressly

disclosed to Appellants that Dr. Follwell would express causation opinions. Respondents made the following disclosure of Dr. Follwell as a non-retained expert:

> This defendant reserves the right to call Dr. Follwell to testify on his own behalf on the subjects of standard of care, **causation** and damages.

(R.L.F. p. 86) (emphasis added).

Even though Respondents expressly reserved causation opinions at Dr. Follwell's deposition, and Respondents subsequently expressly disclosed he would have causation opinions, Appellants did not depose Dr. Follwell again. As set forth above, such a deposition would have been unnecessary because Dr. Follwell's opinions in his deposition matched those he expressed at trial. Nevertheless, Appellants cannot claim Respondents failed to disclose Dr. Follwell's opinions when they were disclosed both in his deposition and in his expert disclosure.

CONCLUSION

The trial court did not abuse its discretion in properly overruling Appellants' objections to expert testimony on the key issues of this case as cumulative. Likewise, Dr. Follwell did not offer a "new opinion" regarding causation, and the trial court properly overruled Appellants' objection. As such, this Court should affirm the trial court's rulings.

Respectfully submitted,

GONNERMAN REINERT, LLC

By: /s/ Mark A. Gonnerman
Mark A. Gonnerman, #49523MO
William J. Magrath, #40511MO
222 South Central Avenue, Suite 500
St. Louis, Missouri 63105
Telephone: (314) 880-8060
Facsimile: (314) 880-8059
mag@grstllaw.com
wjm@grstllaw.com

Attorneys for Respondents

Certificate of Service and Compliance

1. The foregoing brief was electronically on behalf of Respondents Richard Follwell, D.O. and Richard O. Follwell, P.C. with the Clerk of the Court by use of this Court's electronic filing system on this 8th day of May, 2018.
2. Copies of the foregoing were delivered by first class mail and by electronic mail on this 8th day of May, 2018 to attorneys of Appellants.
3. This brief complies with Rule 55.03 and the limitations contained in Rule 84.06(b) limiting Respondents' brief to 31,000 words. This brief contains 15,801 words, as determined by the word count feature on MS Word (not including the cover, certification, signature blocks and appendix).

GONNERMAN REINERT, LLC

By: /s/ Mark A. Gonnerman

Mark A. Gonnerman, #49523MO
William J. Magrath, #40511MO
222 South Central Avenue, Suite 500
St. Louis, Missouri 63105
Telephone: (314) 880-8060
Facsimile: (314) 880-8059
mag@grstllaw.com
wjm@grstllaw.com

Attorneys for Respondents