

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF HAWAII

FELISE MAMEA and SIUILA)	CIVIL NO. 08-00563 LEK
MAMEA,)	
)	
Plaintiffs,)	
)	
vs.)	
)	
UNITED STATES OF AMERICA,)	
)	
Defendant.)	
_____)	

FINDINGS OF FACT AND CONCLUSIONS OF LAW AND ORDER

This matter came on before the Court for a bench trial from October 5 to 8, 2010, and October 12 to 15, 2010. Mark Kamitomo, Esq., and Judith Ann Pavey, Esq., appeared on behalf of Plaintiffs Felise Mamea and Siuila Mamea (collectively "Plaintiffs"), who were present for most of the proceedings. Assistant United States Attorney Harry Yee, Bridget Bailey Lipscomb, Esq., United States Department of Justice, and Major Terrance O'Neill, Jr., Esq., United States Army Legal Services Agency, appeared on behalf of Defendant United States of America ("Defendant"). The Court has: considered the pleadings filed herein and the testimony at trial; evaluated the credibility of the witnesses; examined the deposition designations and the exhibits admitted into evidence; and considered the arguments and representations of counsel. Pursuant to Federal Rule of Civil Procedure 52, the Court hereby makes the following Findings of

Fact and Conclusions of Law and Order, and FINDS in favor of Plaintiffs. Any finding of fact that should more properly be deemed a conclusion of law and any conclusion of law that should more properly be deemed a finding of fact shall be so construed.

BACKGROUND

This action consists of allegations of medical negligence under the Federal Tort Claims Act, 28 U.S.C. §§ 1346, 2671, et seq. ("FTCA"), against Tripler Army Medical Center ("TAMC") in Honolulu, Hawai`i. Plaintiffs allege that various physicians at TAMC failed to properly diagnose and treat Plaintiff Siuila Mamea ("Mrs. Mamea") in a timely and appropriate manner. Plaintiffs claim that, in 1997, Mrs. Mamea received treatment from TAMC physicians that was below the standard of care because: (1) a CT scan with contrast dye was performed before Mrs. Mamea was hydrated and before her kidneys were adequately flushed; (2) Mrs. Mamea was given seventy-five milligrams of Demerol despite having an elevated creatinine level of 4.6; (3) Mrs. Mamea was given the antibiotic, Gentamicin, a known toxin to kidneys; (4) although Mrs. Mamea was given a urine alkalinizing agent, TAMC failed to follow up and check her urine to assess whether the treatment was effective; (5) the discharge plan following Mrs. Mamea's December 16, 1997 hospitalization included the requirement of drinking two to three quarts of fresh fruit juice daily, thereby increasing urine acidity; and (6) TAMC

failed to identify the cause of Mrs. Mamea's kidney disease and failed to perform an analysis of the kidney stone removed from her. [Complaint at ¶¶ 3.3-3.8.] Plaintiffs allege that these negligent acts and omissions caused Mrs. Mamea severe and permanent injuries, specifically end stage renal disease ("ESRD") and kidney failure, forcing her to undergo dialysis. They also allege that, as a direct and proximate result of Defendant's conduct, Plaintiff Felise Mamea ("Mr. Mamea") suffered the loss of his wife's companionship and society. [*Id.* at ¶ 4.3.]

I. Introductory Findings and Conclusions

A. Findings of Fact

1. Mrs. Mamea was born and raised in American Samoa. [Tr. Trans., 10/15/10 - Day 8, at 6.]

Care at Lyndon B. Johnson Tropical Medical Center

2. Mrs. Mamea was twenty-one-years old when she presented at the Lyndon B. Johnson Tropical Medical Center in American Samoa ("LBJ") on May 20, 1995 with complaints of stomach pain for the past five days. [Tr. Exh. 2 at 84.]

3. Mrs. Mamea had also presented at LBJ with abdominal pain radiating to her back on April 18, 1995. LBJ listed appendicitis as a possible diagnosis. [*Id.* at 81.]

4. The results of Mrs. Mamea's May 20, 1995 blood

tests showed that Mrs. Mamea had a creatinine level of 1.0.¹ LBJ considers a normal creatinine level to be within the range of 0.6 and 1.3. [Id. at 85.] The Court finds this to be Mrs. Mamea's baseline creatinine level.

5. On May 20, 1995, LBJ diagnosed her recurrent right side abdominal pain as gastritis without a differential diagnosis. [Tr. Exh. 134 (Trans. 7/10/10 Depo. of Dr. Keith L. Klein), Exh. 1 - DVD ("Klein Depo. DVD"), filename: Tripler Outpatient reviewed.pdf, at 83-84.]

6. On October 21, 1995, Mrs. Mamea again presented at LBJ with abdominal pain radiating to her back with chills. LBJ diagnosed her with a viral or urinary tract infection. [Id. at 81.]

7. LBJ diagnosed Mrs. Mamea with, *inter alia*, appendicitis and performed an appendectomy on November 19, 1995. Mrs. Mamea, however, returned in December 1995 because she was still experiencing pain. [Id. at 75; Tr. Trans., 10/6/10 - Day 2, at 73.]

8. A November 27, 1995 pathology report indicates

¹ Creatinine is a waste product that is present in the blood, primarily from the muscles. Creatinine levels are an indication of the level of the person's kidney function. An elevated creatinine level indicates abnormal renal function wherein the kidney's filtration process is being obstructed and the kidneys are unable to filter out waste from the blood. Kidney stones can create an obstruction leading to renal insufficiency. [Tr. Trans., 10/6/10 - Day 2, at 10-12.]

that the appendix which LBJ removed from Mrs. Mamea was healthy. [Klein Depo. DVD, filename: Tripler Outpatient reviewed.pdf, at 75.]

9. Mrs. Mamea's December 1, 1995 LBJ Out-Patient Record indicates that she had a urinary infection and needed an IVP. [Tr. Exh. 2 at 80.]

10. There is no record that LBJ followed through on the request for an IVP in December 1995. At trial, Plaintiffs' witness Danny L. Keiller, M.D.,² testified that this was a breach of the standard of care. [Tr. Trans., 10/6/10 - Day 2, at 73-74.]

11. Dr. Keiller also testified that, to a reasonable medical probability, Mrs. Mamea was developing kidney stones while under the care of LBJ from 1995 to 1997, [id. at 73,] and that failing to perform the IVP in December 1995 delayed the diagnosis of Mrs. Mamea's kidney stones [id. at 72, 74].

12. Mrs. Mamea presented at LBJ on February 13, 1996 with complaints of pain at her appendectomy incision and a fever. The diagnosis was urinary tract infection. [Klein Depo. DVD, filename: Tripler Outpatient reviewed.pdf, at 77.]

13. On November 30, 1996, Mrs. Mamea presented at LBJ with complaints of bilateral flank pain for three days. LBJ

² The Court accepted Dr. Keiller as an expert in urology and family medicine. [Tr. Trans., 10/6/10 - Day 2, at 17.]

instructed her, *inter alia*, to drink cranberry juice to acidify her urine. [Tr. Exh. 2 at 67.]

14. On December 12, 1996, Mrs. Mamea reported, *inter alia*, right-side abdominal pain with no radiation. The diagnosis was pyelonephritis, and LBJ ordered a kidney, ureter and bladder ("KUB") x-ray. [Id. at 75.]

15. The results of Mrs. Mamea's December 12, 1996 blood test showed that she had a 2.5 creatinine level. [Id. at 73.]

16. At trial, Defendant's witness Major Nealanjon P. Das, D.O.,³ testified that Mrs. Mamea's elevated creatinine level of 2.5 showed significant loss of kidney function and required further evaluation. [Tr. Trans., 10/12/10 - Day 5, at 29; Klein Depo. DVD, filename: Tripler Outpatient reviewed.pdf, at 72.] Dr. Keiller testified that it also showed that Mrs. Mamea had kidney stones with possible obstruction on December 12, 1996. [Tr. Trans., 10/6/10 - Day 2, at 76-77.]

17. Mrs. Mamea's April 30, 1997 emergency room records show that she presented with right side lower back pain that radiated to the front. Mrs. Mamea received two doses of Demerol during this emergency room visit. [Tr. Exh. 2 at 68-69.] The

³ The Court accepted Dr. Das as an expert in nephrology and internal medicine. [Tr. Trans., 10/12/10 - Day 5, at 18.] At the time of trial, Dr. Das was the assistant chief of nephrology service at TAMC. [Id. at 7.]

diagnosis was renal stones/urinary tract infection with a differential diagnosis of bowel spasm. [Id. at 69.]

18. After the April 30, 1997 emergency room visit, LBJ apparently referred Mrs. Mamea to TAMC under the Pacific Islands Health Care Project (PIHCP) for evaluation of kidney stones. [Tr. Trans., 10/14/10 - Day 7, at 39; Klein Depo. DVD, filename: Tripler Outpatient reviewed.pdf (no records after 4/30/97 until June 1997).]

19. The PIHCP is a federally funded project that benefits the Graduate Medical Education Program at TAMC and provides humanitarian health care to medically under-served United States Associated Pacific Island people. [Tr. Trans., 10/13/10 - Day 6, at 27-28.]

20. Dr. Keiller testified at trial that, in light of the fact that Mrs. Mamea's kidney stones were not treated for five months until May 3, 1997 at TAMC, it is probable that the kidney stones developed into a total obstruction in her left kidney and a partial obstruction of her right kidney, as demonstrated by the increase in her creatinine level from 2.5 on December 12, 1996 to 4.6 on May 3, 1997. [Tr. Trans., 10/6/10 - Day 2, at 48-49, 55, 77-78.]

21. Dr. Das, however, conceded that the damage to Mrs. Mamea's kidneys was reversible and that her kidneys were salvageable at the time she received care and treatment at

Tripler in May of 1997. [Pltfs.' Depo. Designation of Nealanjon P. Das, D.O., MAJ, MC, filed 9/14/10 (dkt. no. 103) ("Das Depo. Designation"), at 44; Tr. Trans., 10/5/10 - Day 1, at 124, 143-44, 247-53; Tr. Trans., 10/12/10 - Day 5, at 166.]

Care at Tripler Army Medical Center

22. When Mrs. Mamea presented at the TAMC emergency room on May 3, 1997, she was very sick. She had severe pain, acidosis, anion gap, elevated temperature, elevated white blood cell count (which is an indication of infection), and vomiting. [Tr. Trans., 10/14/10 - Day 7, at 12, 125; Tr. Trans., 10/13/10 - Day 6, at 41; Tr. Trans., 10/12/10 - Day 5, at 44.]

23. After TAMC admitted Mrs. Mamea on May 3, 1997, the staff gave her intravenous ("IV") fluids to try to relieve some of her dehydration, stabilized her, and performed an x-ray evaluation in an attempt to determine what was wrong with her. [Tr. Trans., 10/13/10 - Day 6, at 41-42; Tr. Trans., 10/12/10 - Day 5, at 44-45.]

24. On May 3, 1997, TAMC gave Mrs. Mamea Ciprofloxacin, an antibiotic, to treat her suspected infection. Ciprofloxacin is in the fluoroquinolone drug class, as is Levaquin. Mrs. Mamea was on the Ciprofloxacin from May 3, 1997, until she went to surgery on May 6, 1997. [Tr. Trans., 10/14/10 - Day 7, at 14, 8-10.]

25. On May 3, 1997, Mrs. Mamea was diagnosed with

right renal colic⁴ and bilateral hydronephrosis⁵ with an elevated creatinine level of 4.6. [Id. at 12-13; Tr. Trans., 10/12/10 - Day 5, at 44; Tr. Exh. 2 at 11.] Tripler considers the normal range of creatinine levels to be 0.6 to 1.1. [Tr. Exh. 2 at 31.]

26. Because Mrs. Mamea's creatinine level was 4.6, TAMC was only able to perform an x-ray without contrast and an ultrasound without contrast, although performing either an intravenous pyelogram (IVP) with dye/contrast in the veins or a CAT Scan is a more accurate way to identify and locate all of the kidney stones in the ureter. [Tr. Trans., 10/14/10 - Day 7, at 17-18; Tr. Trans., 10/13/10 - Day 6, at 55-56.]

27. The May 3, 1997 KUB x-ray showed about five multiple calcific densities in the right renal pelvis varying in size, but one was 2.0 centimeters. A density was also found in the left lower quadrant of the abdomen measuring 1.6 by 1.0 centimeters. [Tr. Trans., 10/12/10 - Day 5, at 45; Tr. Trans., 10/14/10 - Day 7, at 17; Tr. Exh. 2 at 46.]

28. On May 5, 1997, TAMC performed a cystoscopy and placed a double J stent in Mrs. Mamea's left kidney to relieve her of the obstruction and/or to drain the kidney causing the

⁴ Renal colic is pain from kidney stones. [Tr. Trans., 10/5/10 - Day 1, at 123.]

⁵ Hydronephrosis is swelling of the ureters which indicates obstruction. [Tr. Trans., 10/14/10 - Day 7, at 12-13; Tr. Trans., 10/12/10 - Day 5, at 45.]

hydronephrosis. [Tr. Trans., 10/14/10 - Day 7, at 19; Tr. Trans., 10/13/10 - Day 6, at 43; Tr. Trans., 10/6/10 - Day 2, at 104-05; Tr. Exh. 2 at 11; Tr. Exh. 139.]

29. On May 6, 1997 Mrs. Mamea underwent a percutaneous nephrolithotomy (PCNL) to remove large kidney stones in her right kidney. During the PCNL, dye was injected into the kidney to show the inner part of the kidney and to prevent stone fragments from passing and getting lodged in the ureter during the procedure. [Tr. Trans., 10/14/10 - Day 7, at 20-21; Tr. Trans., 10/13/10 - Day 6, at 44-45; Tr. Exh. 2 at 11.]

30. TAMC administered Ampicillin and Gentamicin before the PCNL. [Tr. Trans., 10/14/10 - Day 7, at 22-23, 26; Tr. Trans., 10/13/10 - Day 6, at 80, 100; Tr. Trans., 10/12/10 - Day 5, at 60-61.] TAMC's stated purpose for prescribing these medications was to treat Mrs. Mamea's urinary tract infection and fever at the time of the PCNL. [Tr. Trans., 10/14/10 - Day 7, at 25.]

31. Defendant's witnesses testified that, from May 6, 1997 to May 7, 1997, TAMC gave Mrs. Mamea either one or two additional doses of Gentamicin after the intraoperative dose. [Tr. Trans., 10/12/10 - Day 5, at 60-61 (Dr. Das - one additional dose); Tr. Trans., 10/14/10 - Day 7, at 102 (Dr. Lee - two additional doses).]

32. TAMC later switched the Gentamicin to Levaquin

because of the concern for nephrotoxicity. Gentamicin tends to have a higher risk of nephrotoxicity when the patient receives a high number of doses. [Tr. Trans., 10/14/10 - Day 7, at 100-01; Tr. Trans., 10/13/10 - Day 6, at 84-85.]

33. The May 6, 1997 PCNL broke up and largely removed the stones in Mrs. Mamea's right kidney. [Tr. Trans., 10/13/10 - Day 6, at 45; Tr. Trans., 10/6/10 - Day 2, at 78-79.]

34. In order to assure relief of the obstruction in Mrs. Mamea's right kidney, a nephrostomy tube was left in to drain the kidney externally. [Tr. Trans., 10/13/10 - Day 6, at 45; Tr. Trans., 10/6/10 - Day 2, at 55.] A nephrostomy tube drains the kidney on the outside of the body to release residual stone fragments and urine. [Tr. Trans., 10/12/10 - Day 5, at 45-46; Tr. Trans., 10/14/10 - Day 7, at 45-46.]

35. Post-operatively, TAMC gave Mrs. Mamea Demerol for pain. [Tr. Trans., 10/12/10 - Day 5, at 52; Tr. Trans., 10/5/10 - Day 1, at 139-40.]

36. Based on the discovery of swelling and pus during the PCNL, TAMC suspected that small residual stones may have been left in Mrs. Mamea's right kidney, and therefore TAMC sent her for a lithotripsy. [Tr. Trans., 10/14/10 - Day 7, at 71-72; Tr. Trans., 10/12/10 - Day 5, at 48.]

37. On May 14, 1997, Mrs. Mamea had a bilateral Extracorporeal Shock Wave Lithotripsy ("ESWL") on her left and

right kidneys. TAMC Staff Urologist Dr. Bill Kennon performed the ESWL at the Queen's Medical Center, Kidney Stone Center of the Pacific. [Tr. Trans., 10/13/10 - Day 6, at 47.]

38. An ESWL is a shock wave treatment wherein the patient sits in a tub of water and shock waves are sent into her back to break any kidney stones into small pieces that can more easily travel through the urinary tract and pass from the body. [Id.; Tr. Trans., 10/14/10 - Day 7, at 71.]

39. Dr. Kennon's report states that the ESWL broke up the remaining stones. [Tr. Trans., 10/14/10 - Day 7, at 36.]

40. Mrs. Mamea's May 12, 1997 blood test showed high uric acid in her urine. High amounts of uric acid in the urine can form uric acid crystals, which act as the nidus⁶ for the formation of other types of stones, including calcium oxalate stones. [Id. at 38-39.]

41. If calcium spills into the urine, it can also crystallize and form stones. [Id.; Tr. Trans., 10/13/10 - Day 6, at 59-60.]

42. Citrate levels inhibit stone formation, preventing new stones from forming and prohibiting existing stones from growing. [Tr. Trans., 10/14/10 - Day 7, at 38; Tr. Trans., 10/13/10 - Day 6, at 58.]

⁶ The nidus of a kidney stone is its core. [Tr. Trans., 10/5/10 - Day 1, at 99.]

43. Before her discharge, TAMC gave Mrs. Mamea a supply of Potassium Citrate and Allopurinol, as well as a prescription for each to treat her stone disease. [Tr. Trans., 10/8/10 - Day 4, at 165; Tr. Trans., 10/13/10 - Day 6, at 58; Klein Depo. DVD, filename: MAMEA TRIPLER bad DOCUMENTS.pdf, at 10.]

44. Potassium Citrate, also referred to in this case as Urocit-K, alkalinizes the urine by putting citrate in the urine. Citrate is a known inhibitor of most classes of renal stones. [Tr. Trans., 10/13/10 - Day 6, at 58; Tr. Trans., 10/12/10 - Day 5, at 50-51.]

45. Allopurinol decreases the amount of uric acid excreted in the urine. [Tr. Trans., 10/14/10 - Day 7, at 39; Tr. Trans., 10/12/10 - Day 5, at 51.]

46. During Mrs. Mamea's hospitalization in May of 1997, TAMC performed a twenty-four-hour urine collection (UroRisk profile). [Tr. Trans., 10/13/10 - Day 6, at 58; Tr. Exh. 2 at 23.]

47. The Potassium Citrate and Allopurinol that Mrs. Mamea's TAMC physicians prescribed were appropriate and necessary to address the metabolic insufficiencies found on the UroRisk profile. [Tr. Trans., 10/6/10 - Day 2, at 80-81.] This study showed that she had hypercalciuria (too much calcium in the urine), hyperuricosuria (too much uric acid in the urine), and

hypocitraturia (not enough citrate in the urine) as risk factors for calcium and uric acid stone formation. Ms. Mamea was excreting low amounts of citrate into her urine. [Tr. Trans., 10/13/10 - Day 6, at 58, 72; Tr. Trans., 10/12/10 - Day 5, at 49.]

48. The calcium-based kidney stone is the most common type of stone; seventy to eighty percent of kidney stones are calcium based. [Tr. Trans., 10/12/10 - Day 5, at 124.]

49. When TAMC discharged Mrs. Mamea in May 1997, it: instructed her to take her medicine, gave her a follow-up appointment; gave her telephone numbers to TAMC in case she encountered problems; and gave her a copy of the discharge summary. [Tr. Trans., 10/15/10 - Day 8, at 44-50; Tr. Exhs. 100A, 101A.]

50. At the time of discharge, Stephen Lee, M.D.,⁷ counseled Mrs. Mamea and instructed her to follow up with her primary care physician and to take her medicine. [Tr. Trans., 10/14/10 - Day 7, at 41.]

51. At her May 28, 1997 discharge, Mrs. Mamea's creatinine level was 2.0. [Id. at 62.]

52. After Mrs. Mamea's final discharged from TAMC in

⁷ From May 1997 to January 1998, Dr. Lee was the chief resident of the urology service at TAMC. [Tr. Trans., 10/14/10 - Day 7, at 9.] At the time of trial, Dr. Lee was had a private urology practice. [Id. at 7.]

May 1997, she returned to American Samoa.

Care at LBJ

53. Mrs. Mamea presented at LBJ in American Samoa on June 22, 1997, complaining of backache and nausea. LBJ's records note that Mrs. Mamea was prescribed Potassium Citrate for renal stones secondary to lithotripsy for stone removal. [Tr. Exh. 2 at 65.]

54. On June 23, 1997, Mrs. Mamea complained of central back pain. LBJ's records note that Mrs. Mamea had surgery at TAMC "last month for bilateral renal calculi" and that TAMC put Mrs. Mamea on Potassium Citrate and Zyloprim (Allopurinol). [Id. at 63.]

55. On July 22, 1997, Gregory Thibault, M.D.,⁸ saw Mrs. Mamea at LBJ. [Tr. Trans., 10/13/10 - Day 6, at 31-32, 48; Tr. Exh. 2 at 62.]

56. On July 22, 1997, Mrs. Mamea had a creatinine level of 2.2. [Tr. Exh. 2 at 62.]

57. According to Dr. Thibault's testimony, because he recognized his inability to follow Mrs. Mamea closely pursuant to the PIHCP, Dr. Thibault followed his normal practice and emphasized to Mrs. Mamea the importance of hydration and taking

⁸ At the time of trial, Dr. Thibault was the chief of the urology section at TAMC. [Tr. Trans., 10/13/10 - Day 6, at 20.] In May 1997 and January 1998, he was a urology resident at TAMC. [Id. at 22.]

her medicine because of her "terrible, terrible renal insufficiency." [Tr. Trans., 10/13/10 - Day 6, at 34-35, 67-68; Tr. Exh. 2 at 62.]

58. Dr. Thibault testified that he followed his normal practice and discussed the plan and importance of the medication with Mrs. Mamea's primary care physicians at LBJ. He instructed Mrs. Mamea, in the presence of her primary care physician, to continue taking her Potassium Citrate and Allopurinol. [Tr. Trans., 10/13/10 - Day 6, at 34-36; Tr. Exh. 2 at 62.]

59. Dr. Thibault noted in Mrs. Mamea's medical records that, on July 22, 1997, she had been off of her Potassium Citrate for three weeks and had not taken the Allopurinol for the last "few" weeks. [Tr. Exh. 2 at 62.]

60. Mrs. Mamea's uric acid level in July 1997 was 5.7, which is considered normal, but Defendant's witnesses asserted that this did not prove that the Allopurinol was unnecessary. Even though Mrs. Mamea had not been taking the Allopurinol for a few weeks, her uric acid level could still have been normal because uric acid builds slowly. [Tr. Trans., 10/13/10 - Day 6, at 69-70, 177-79; Tr. Trans., 10/14/10 - Day 7, at 108-09.]

61. Mrs. Mamea testified that she tried, but was unable, to get her medicine from LBJ. [Tr. Trans., 10/15/10 - Day 8, at 21.]

62. Dr. Thibault instructed Mrs. Mamea's primary care

physicians to refer her to TAMC in six months if testing showed that her stones continued to grow despite the medications. [Tr. Trans., 10/13/10 - Day 6, at 34; Tr. Exh. 2 at 62.]

63. On October 7, 1997, Mrs. Mamea had a creatinine level of 2.2. [Tr. Trans., 10/14/10 - Day 7, at 34, 78; Tr. Exh. 2 at 62.]

64. On October 15, 1997, Mrs. Mamea presented at LBJ with complaints of flank pain. LBJ performed a KUB x-ray, which indicated a right-sided stone. [Tr. Trans., 10/12/10 - Day 5, at 69-70.]

65. On October 15, 1997, Mrs. Mamea returned to LBJ for follow-up. She complained of occasional flank pain. Her uric acid level had risen to 10.7, and her creatinine level was also up to 2.3. LBJ instructed Mrs. Mamea to continue with her medications, including the Allopurinol prescribed by TAMC, and to return for a follow-up uric acid test. LBJ did not refer Mrs. Mamea to TAMC under the PIHCP at that time. LBJ's diagnosis was renal colic, renal insufficiency, and hyperuricosuria. [Tr. Exh. 2 at 61.]

Care at TAMC from December 8, 1997 through January 6, 1998

66. Mrs. Mamea returned to TAMC on December 8, 1997. On that day, her creatinine level was 1.8. [Tr. Trans., 10/12/10 - Day 5, at 74; Tr. Trans., 10/13/10 - Day 6, at 52-53; Tr. Trans., 10/14/10 - Day 7, at 75.]

67. Mrs. Mamea was ambulatory and TAMC treated her on an out-patient basis during this visit. [Tr. Trans., 10/12/10 - Day 5, at 74-75; Tr. Trans., 10/13/10 - Day 6, at 48-49.]

68. While Mrs. Mamea complained of right flank pain, she was not as sick as she was when she arrived at TAMC in May 1997. She did not have a fever, an elevated white blood cell count, or significant acidosis, and she was not in acute distress. [Tr. Trans., 10/12/10 - Day 5, at 74-75; Tr. Trans., 10/13/10 - Day 6, at 48-49.]

69. On December 8, 1997, TAMC performed an IVP with non-ionic contrast on Mrs. Mamea to identify and locate any new kidney stones. [Tr. Trans., 10/13/10 - Day 6, at 52-54.]

70. On December 11, 1997, Dr. Thibault and Dr. William Kennon performed a PCNL to remove a kidney stone causing a partial obstruction in Mrs. Mamea's right kidney. [Tr. Trans., 10/12/10 - Day 5, at 76-77; Tr. Trans., 10/14/10 - Day 7, at 43-44; Tr. Trans., 10/13/10 - Day 6, at 49-50; Tr. Exh. 140.]

71. The stone measured approximately 1.2 to 1.8 centimeters in the lower pole of the right kidney. [Tr. Trans., 10/12/10 - Day 5, at 76-77.]

72. The PCNL successfully removed most of Mrs. Mamea's stone, but a fragment remained in the right kidney. TAMC placed a nephrostomy tube to drain the urine. [Id.; Tr. Trans., 10/13/10 - Day 6, at 56.]

73. TAMC gave Mrs. Mamea three doses of perioperative prophylactic Gentamicin. [Tr. Trans., 10/13/10 - Day 6, at 55.]

74. During the PCNL, a stone fragment was captured and sent for composition analysis. The stone analysis showed that it contained eighty-five percent calcium oxalate monohydrate and fifteen percent calcium phosphate. [Id. at 59.]

75. The stone composition analysis did not identify the nidus. [Id. at 72-74; Tr. Trans., 10/14/10 - Day 7, at 53-54; Tr. Trans., 10/12/10 - Day 5, at 134.]

76. On December 14, 1997, Mrs. Mamea's creatinine level was 2.4. [Tr. Trans., 10/14/10 - Day 7, at 47-48; Tr. Exh. 2 at 17.]

77. On December 16, 1997, TAMC performed a nephrostogram on Mrs. Mamea. A nephrostogram is an x-ray study where contrast is injected into the collecting system in the kidney through a percutaneous nephrostomy tube which does not have the risk of nephrotoxic injury. [Tr. Trans., 10/13/10 - Day 6, at 60.]

78. Because Mrs. Mamea was a patient through the PIHCP and this was likely the last opportunity to render her stone free, and because the TAMC doctors were unable to follow her, they decided to surgically remove the five millimeter fragment found in the nephrostogram, even though it was not causing an obstruction. [Id. at 56-57; Tr. Trans., 10/14/10 - Day 7, at 46-

47.]

79. Upon Mrs. Mamea's discharge from TAMC on December 16, 1997, one of the nursing instructions that TAMC gave her was to drink plenty of fluids, including two to three quarts of fresh fruit juice and water, per day to prevent constipation. [Tr. Trans., 10/12/10 - Day 5, at 80-81; Tr. Exh. 102A at 89.]

80. Upon her discharge, TAMC gave Mrs. Mamea: a supply of Potassium Citrate and Allopurinol; a prescription for them; instructions to take her medicine; telephone numbers to TAMC with instructions to call if she had any problems; a follow-up appointment with the urology clinic; and a copy of her discharge summary. [Tr. Trans., 10/15/10 - Day 8, at 50-54; Tr. Exh. 102A.]

81. TAMC performed a CAT Scan without contrast on December 19, 1997. It revealed that Mrs. Mamea had a small ureteral stone on the left side that was likely causing blockage and causing Mrs. Mamea's creatinine level to rise slightly. [Tr. Trans., 10/13/10 - Day 6, at 56-57; Tr. Trans., 10/14/10 - Day 7, at 46-48, 76-78.]

82. On January 6, 1998, Dr. Lee performed a ureteroscopy on Mrs. Mamea to remove the fragment on the right side and the small ureteral stone on the left side. [Tr. Trans., 10/13/10 - Day 6, at 56-57; Tr. Trans., 10/14/10 - Day 7, at 47-48; Tr. Exh. 140.]

83. This out-patient procedure was Mrs. Mamea's last treatment at TAMC. TAMC cleared Mrs. Mamea of her stones as the fragments left were mere dust. [Tr. Trans., 10/14/10 - Day 7, at 48.] She was considered "stone-free at that point[.]" [Id. at 48.]

Kaiser Permanente Hawaii Treatment

84. Mrs. Mamea presented at the emergency room at Pali Momi Medical Center ("Pali Momi") with complaints of flank pain on September 4, 2003. [Tr. Trans., 10/6/10 - Day 2, at 173.] Pali Momi treated her with antibiotics. Mrs. Mamea, however, did not improve. [Id. at 160, 163, 173.]

85. On September 8, 2003, Mrs. Mamea presented at the emergency room at Kaiser Permanente Hawaii ("Kaiser") with complaints of nausea, vomiting and chills. [Tr. Exh. 108 at 777-79.]

86. Mrs. Mamea was referred to a Kaiser nephrologist, Aurora Fernando Tomita, M.D.,⁹ on September 9, 2003. [Id.] At this time, Mrs. Mamea gave Dr. Tomita the history of her kidney problems. [Tr. Trans., 10/6/10 - Day 2, at 169-70.]

87. On September 9, 2003, Dr. Tomita diagnosed Mrs. Mamea with "acute renal failure, cannot totally exclude an

⁹ The records list this nephrologist as Dr. Aurora Fernando. Subsequent to September 2003, Dr. Fernando got married and changed her name Dr. Aurora Fernando Tomita. The Court will hereafter use the name Dr. Tomita.

underlying chronic renal disease". [Id. at 160.] On September 17, 2003, Dr. Tomita noted the diagnosis "renal failure likely both acute and chronic secondary to obstructive nephropathy." [Tr. Exh. 108 at 790.]

88. On September 9, 2003, Mrs. Mamea had a creatinine level of 10.0, and a CT Scan without contrast revealed a left staghorn calculus,¹⁰ right obstructing stone, and right hydronephrosis (retaining water in the kidney). [Id. at 777-79.] In addition, a urinalysis showed protein, pus, and blood. [Tr. Trans., 10/6/10 - Day 2, at 161-62.]

89. A Kaiser urological surgeon, Dr. Robert Washecka, treated Mrs. Mamea's stones with cystoscopy and stent placement. [Id. at 192-93.]

90. For the next fifteen months, there are only three Kaiser records, all of which are from July 2004. One record is for a telephone call to notify Mrs. Mamea of an abnormal results from a fasting glucose on July 7, 2004. The test showed that Mrs. Mamea has Diabetes Mellitus. [Tr. Exh. 108 at 949-50.]

91. On March 24, 2005, Plaintiff was again admitted to Kaiser with highly elevated creatinine levels. Dr. Anthony Turner's diagnosis was ESRD. An out-patient note

¹⁰ A staghorn calculus is a massive collection of kidney stones that fill the entire renal pelvis. [Tr. Trans., 10/5/10 - Day 1 - at 142-43.] "It represents basically the end stage sequela of untreated or poorly treated kidney stones." [Id. at 143.]

indicates that Mrs. Mamea was advised to begin dialysis during this March 2005 hospitalization, but she refused. [Id. at 647-51.]

92. On March 25, 2005, a CT scan revealed small bilateral calcific densities thought possibly to be renal stones. Mrs. Mamea's kidneys were not obstructed at that time. [Id. at 671.]

93. Mrs. Mamea acknowledges that her physicians told her in early 2005 that she needed to go on dialysis. [Tr. Trans., 10/15/10 - Day 8, at 74.]

94. On April 5, 2005, Alan Thomas Lau, M.D.,¹¹ diagnosed Mrs. Mamea as suffering from ESRD associated with diabetes. [Tr. Trans., 10/6/10 - Day 2, at 129-30.] At some point, Dr. Lau also recommended that Mrs. Mamea begin dialysis, but she refused. [Id. at 132.]

95. Mrs. Mamea was again admitted to the Kaiser hospital on September 18, 2005. Medical records indicate that she had multiple medical problems, including ESRD, diabetes, and poorly treated hypertension. At this time, lab work also showed that Mrs. Mamea was eight to nine weeks pregnant. [Tr. Exh. 108 at 301-07.]

96. Although she initially refused to begin dialysis

¹¹ At the time of trial, Dr. Lau was the chief of nephrology at Kaiser. [Tr. Trans., 10/6/10 - Day 2, at 114.]

even after learning of her pregnancy, Mrs. Mamea began dialysis later in September 2005. [Tr. Trans., 10/6/10 - Day 2, at 141.]

97. The Mameas' first child, a boy they named Jared, died in 2006 shortly after his birth. [Tr. Trans., 10/15/10 - Day 8, at 26-27.]

98. During the pendency of this case, Mrs. Mamea conceived again and gave birth to a daughter, who she named Jaredynn. Jaredynn was four-months-old at the time of trial. [Id. at 26.]

99. If Mrs. Mamea does not have a successful kidney transplant, she will be on dialysis for the rest of her life. [Tr. Trans., 10/7/10 - Day 3, at 96.]

100. Mrs. Mamea testified that she has dialysis three times a week. During her pregnancy, she had dialysis six times a week. [Tr. Trans., 10/15/10 - Day 8, at 11.]

B. Conclusions of Law

1. This Court has jurisdiction, pursuant to 28 U.S.C. §§ 636(c) and 1346(b)(1), and Fed. R. Civ. P. 73, to decide this matter and order the entry of judgment.

2. Venue is proper in the District of Hawai'i.

II. Statute of Limitations

A. Findings of Fact

1. Plaintiffs filed their FTCA administrative claim on September 14, 2007. [Tr. Exh. 109.]

2. After the procedure that TAMC performed on Mrs. Mamea in January 1998, TAMC considered her to be "stone-free at that point[.]" [Tr. Trans., 10/14/10 - Day 7, at 48.]

3. The discharge instructions that TAMC gave Mrs. Mamea on December 16, 1997 stated that she should return to the emergency room or the urology clinic if she experienced any signs or symptoms of infection. [Tr. Exh. 102 at 89.]

4. Between the time of her discharge from Tripler in 1998 and September 2003, Mrs. Mamea was asymptomatic. [Tr. Trans., 10/6/10 - Day 2, at 119-20; Tr. Trans., 10/8/10 - Day 4, at 146-48, 161; Tr. Trans., 10/15/10 - Day 8, at 20-23, 31, 34, 44-47, 50, 53-54, 56, 70-72.]

5. On September 9, 2003, Dr. Tomita diagnosed Mrs. Mamea with "acute renal failure, cannot totally exclude an underlying chronic renal disease". [Tr. Trans., 10/6/10 - Day 2, at 160.] On September 17, 2003, Dr. Tomita noted the diagnosis "renal failure likely both acute and chronic secondary to obstructive nephropathy." [Tr. Exh. 108 at 790.]

6. Mrs. Mamea reported her medical history to Dr. Tomita on September 9, 2003. Mrs. Mamea discussed her treatment at LBJ, and described her treatment at TAMC in detail, including the procedure at Queens. [Tr. Trans., 10/6/10 - Day 2, at 169-71; Tr. Trans., 10/15/10 - Day 8, at 65-66.]

7. From Mrs. Mamea's thorough descriptions, Dr.

Tomita correctly identified the procedures that Mrs. Mamea received at TAMC. [Tr. Trans., 10/6/10 - Day 2, at 170-71; Tr. Exh. 108 at 777-79.]

8. Dr. Tomita based her statement in the medical record that "I cannot totally exclude an underlying chronic renal disease," on Mrs. Mamea's oral history of the kidney stone treatment she received from TAMC. [Tr. Trans., 10/6/10 - Day 2, at 176-77; Tr. Exh. 108 at 777-79.]

9. Dr. Tomita told Mrs. Mamea that she was concerned that the stones she had at TAMC may have something to do with her condition. [Tr. Trans., 10/6/10 - Day 2, at 177.]

10. Mrs. Mamea does not remember whether Dr. Tomita relayed her concerns about Mrs. Mamea's prior stones treated at TAMC. [Tr. Trans., 10/15/10 - Day 8, at 69-70.]

11. Mrs. Mamea attended at least two classes on kidney disease, the first on or around December 4, 2003. The classes were between forty-five to sixty minutes long. At these classes, Mrs. Mamea learned about, *inter alia*, the causes of kidney disease. [Tr. Trans., 10/6/10 - Day 2, at 137-39; Tr. Trans., 10/15/10 - Day 8, at 76-77.] There was no evidence presented at trial regarding the specific contents of these classes.

12. On March 24, 2005, Dr. Anthony Turner diagnosed Mrs. Mamea with ESRD. [Tr. Exh. 108 at 647-51.]

13. Dr. Alan Lau also provided care to Mrs. Mamea in

March 2005. Although both he and Dr. Tomita were aware of the treatment that Mrs. Mamea received at TAMC, neither of them had or reviewed Mrs. Mamea's medical records from TAMC. [Tr. Trans., 10/6/10 - Day 2, at 117, 152, 177.]

14. Dr. Lau testified that, when he first saw Mrs. Mamea in 2005, she was "clinically feeling fine[.]" [Id. at 119-20.] He also testified that patients with as little as five percent kidney function can be asymptomatic. [Id. at 119.] Dr. Tomita testified that she has seen patients with as little as eight or ten percent kidney function who appear to be fine. [Id. at 158.] Patients with ESRD have less than fifteen percent of normal kidney function. [Id. at 115.]

15. Plaintiffs were never told, nor was it suggested to them by anyone, including Drs. Tomita and Lau, that Mrs. Mamea's ESRD or her renal failure was related to the care she received at TAMC. In fact, Dr. Tomita felt that Mrs. Mamea's ESRD was due to a chronic kidney disease or other chronic kidney problem, and Dr. Lau surmised that Mrs. Mamea's ESRD was related to diabetes. [Id. at 123, 143.]

16. Mrs. Mamea's injury is not the type of *res ipsa loquitur* injury where the mere fact that the injury exists can support a finding of negligence. The testimony before the Court was that ESRD could occur from non-negligent conditions such as stone disease or diabetic renal disease. [Id. at 120-21.]

17. Nothing in the course of Kaiser's care of Mrs. Mamea from September 9, 2003 through September 13, 2005 could have reasonably been expected to lead Plaintiffs to inquire into whether her ESRD was the result of the care that she received at TAMC.

18. In May 2006, after Jared's death, Plaintiffs consulted with attorneys to determine whether his death may have been the result of Kaiser's negligence. In the course of that inquiry, Plaintiffs tried to look for Mrs. Mamea's TAMC medical records. [Tr. Trans., 10/15/10 - Day 8, at 39.]

19. Mrs. Mamea testified that her attorneys requested her signature on a request for medical records. It was her understanding that the records were to go directly to counsel from TAMC. Mrs. Mamea testified that no records came to their home from TAMC. [Id. at 40.] She also did not know whether her attorneys actually received the records. [Id. at 41-42.]

20. Ann Jones testified that TAMC received a request for a copy of Mrs. Mamea's medical records on May 19, 2006. [Tr. Trans., 10/13/10 - Day 6, at 9.]

21. Ms. Jones testified that she processed this medical records request and that she completed compiling these records on January 5, 2007. [Id. at 9-10.] Ms. Jones, however, could not verify that Plaintiffs, or anyone else on their behalf, actually received the medical records. [Id. at 11-13.]

B. Conclusions of Law

1. There is a two-year statute of limitations for tort claims against Defendant, and such claims are barred unless brought within two years of the time that the claim accrued. See 28 U.S.C. § 2401(b) ("A tort claim against the United States shall be forever barred unless it is presented in writing to the appropriate Federal agency within two years after such claim accrues").

2. A claim "accrues" when the plaintiff discovers the existence and the cause of his or her injury. See United States v. Kubrick, 444 U.S. 111, 119-22 (1979); Hensley v. United States, 531 F.3d 1052, 1056 (9th Cir. 2008).

3. Plaintiffs discovered the existence of Mrs. Mamea's injury by September 16, 2003. Plaintiffs' knowledge of the injury's cause, however, occurred much later.

4. Mere knowledge of the injury is not sufficient to trigger the FTCA's statute of limitation. Rather, where the claim is based upon the failure to properly diagnose, treat, or warn about a pre-existing condition, the plaintiff must also be armed with reasonable information that the defendant's actions or inactions are implicated in the worsening of the plaintiff's condition. See Augustine v. United States, 704 F.2d 1074, 1078 (9th Cir. 1983).

5. Medical negligence, unlike, perhaps, a claim for

injuries sustained from a motor vehicle accident, requires expertise to identify. See Winter v. United States, 244 F.3d 1088, 1091 (9th Cir. 2001) (holding that “[w]here not even the doctors knew of the probable general medical cause, . . . an FTCA medical malpractice claim does not accrue” (citation and quotation marks omitted)).

6. For purposes of determining when Plaintiffs had knowledge of the cause of Mrs. Mamea’s renal failure injury, this Court concludes from the evidence adduced at trial that Plaintiffs had reasonable information to know that Defendant’s medical care and treatment were the cause of Mrs. Mamea’s injury, at the very earliest, as of May 16, 2006, the date that the TAMC medical records were requested, and more likely by January 5, 2007, when Ms. Jones purportedly made these records available.

7. Plaintiffs filed their FTCA administrative claim on September 14, 2007, and thus met their obligation to file their claim within two years of either May 16, 2006 or January 5, 2007.

8. The Court concludes that Plaintiffs’ claims are not barred by the applicable statute of limitations.

III. Medical Negligence Claims

A. Findings of Fact Applicable to All Claims

1. It is undisputed that TAMC owed a duty of care to Mrs. Mamea when it treated her in 1997 and 1998.

B. Conclusions of Law Applicable to All Claims

1. In negligence actions brought under the FTCA, the United States is liable only where a private person would be liable for the same act or omission under the laws of the state within which the act or omission occurred. See 28 U.S.C. §§ 1346(b)(1),¹² 2674.

2. Under Hawai`i law, a plaintiff in a medical malpractice case must establish that: the defendant owed a duty to the plaintiff; the defendant breached that duty; and there is a causal relationship between the defendant's breach and the plaintiff's injury. See Bernard v. Char, 79 Hawai`i 371, 377, 903 P.2d 676, 682 (Ct. App. 1995).

3. Hawai`i courts generally require expert medical testimony to establish negligent treatment because "lay jurors

¹² Section 1346(b)(1) states, in pertinent part:

the district courts . . . shall have exclusive jurisdiction of civil actions on claims against the United States, for money damages, accruing on and after January 1, 1945, for injury or loss of property, or personal injury or death caused by the negligent or wrongful act or omission of any employee of the Government while acting within the scope of his office or employment, under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.

28 U.S.C. § 1346(b)(1). The United States, however, cannot be held liable for prejudgment interest or punitive damages. See 28 U.S.C. § 2674.

are ill prepared to evaluate complicated technical data for the purpose of determining whether professional conduct conformed to a reasonable standard of care and whether there is a causal relationship between the violation of a duty and an injury to the patient.'" Id. (citations omitted).

4. The expert cannot merely testify that he would have treated the patient in a particular manner; the expert must testify "that the defendant's treatment deviated from any of the methods of treatment approved by the standards of the profession." Id. (citations omitted).

C. Administration of Gentamicin During May 1997

1. Findings of Fact

a. Gentamicin is a very potent antibiotic that is used to treat serious infections. It is one of the most nephrotoxic antibiotics available. Because of the great risk of kidney damage, doctors must closely monitor Gentamicin levels and creatinine levels in patients on Gentamicin, even when the patient has normal kidney function. The risk of damage increases if the patient has preexisting kidney damage. [Tr. Trans., 10/5/10 - Day 1, at 84.]

b. A doctor should not administer Gentamicin unless the patient is in a life-threatening situation and the doctor has no choice but to assume the risks of administering Gentamicin. [Id. at 85.]

c. Defendant's expert Dr. Das, who was not one of the TAMC physicians who treated Mrs. Mamea, testified that, during Mrs. Mamea's May 1997 treatment at TAMC, TAMC administered two does of Gentamicin to Mrs. Mamea. Dr. Lee, one of Mrs. Mamea's treating physicians, testified that TAMC administered three doses of Gentamicin and that TAMC measured the Gentamicin peak and trough with the third dose. [Tr. Trans. 10/12/10 - Day 5, at 60-61; Tr. Trans., 10/14/10 - Day 7, at 102.]

d. The Court finds that Dr. Lee's testimony is more credible because it is consistent with the medical records in this case. [Tr. Exh. 2 at 27.].

e. The Court finds that TAMC administered three doses of Gentamicin to Mrs. Mamea in May 1997.

f. TAMC's stated purpose for prescribing Ampicillin and Gentamicin in connection with the PCNL was to treat Mrs. Mamea's urinary tract infection and fever at the time of the PCNL. [Tr. Trans., 10/14/10 - Day 7, at 25.]

g. The treating physicians were aware that Gentamicin could have a nephrotoxic effect on a patient with abnormal renal function, but they felt that the benefit of using it to treat Mrs. Mamea's infection outweighed the risk of using a less potent antibiotic. In particular, Defendant's witnesses testified that Mrs. Mamea received Ciprofloxacin for three days,

but her infection did not appear to respond to that medication. [Tr. Trans., 10/13/10 - Day 6, at 78-80; Tr. Trans., 10/14/10 - Day 7, at 26-28; Tr. Trans., 10/12/10 - Day 5, at 53-54.]

h. TAMC's contention that the use of Gentamicin was necessary because the Ciprofloxacin administered at the time of Mrs. Mamea's admission on May 3, 1997 was not working lacks credibility. It was undisputed that TAMC administered the Ciprofloxacin to Mrs. Mamea to address a fever of no more than 101 and a slightly elevated white blood cell count of 14,400, where 10,000 was within a normal range. At the time TAMC changed the Ciprofloxacin to Gentamicin, Mrs. Mamea's fever was essentially the same as at the time of admission and her white blood cell count was 8,000, which is considered normal. [Tr. Trans., 10/14/10 - Day 7, at 93, 120.]

i. Defendant's expert, Dr. Das, testified through deposition designations that Gentamicin is contraindicated in patients with even moderately impaired renal function. [Das Depo. Designation at 45-47.] Dr. Das also testified that even a single dose of Gentamicin can cause harm to one's kidneys. [Id. at 45; Tr. Trans., 10/12/10 - Day 5, at 153.]

j. Dr. Lee testified that he started treating Mrs. Mamea with Ciprofloxacin, instead of Gentamicin, because he was concerned that Gentamicin would cause nephrotoxic injury at

her creatinine level of 4.6. He also conceded that, at the time he switched the Ciprofloxacin to Ampicillin/Gentamicin, there were other options available that were not nephrotoxic. [Tr. Trans., 10/14/10 - Day 7, at 99-100.]

k. Defendant's witnesses testified that, in May 1997, the medical guide or bible on infectious disease for physicians instructed that patients be given antibiotics preoperatively and recommended Ampicillin and Gentamicin as the first line treatment. [Id. at 23, 26-27; Tr. Trans., 10/12/10 - Day 5, at 54-55.] The Court, however, declines to consider this guide because the Court ruled that the publication was inadmissible at trial because Defendant failed to timely disclose it to Plaintiffs.

l. Dr. Das testified that the use of Gentamicin was justified because Mrs. Mamea had "pus under pressure"¹³ in her right kidney and three strains of E. coli in her urine culture that were susceptible to Gentamicin. [Tr. Trans., 10/12/10 - Day 5, at 54, 183.]

m. The Court finds that the presence of pus in Mrs. Mamea's kidney and the presence of E. coli in her urine did not justify administering Gentamicin because TAMC did not discover the pus and did not obtain the results of the urine

¹³ Dr. Das explained that the term "pus under pressure" is a term that he uses to refer to "an infection, especially like an abscess". [Tr. Trans., 10/12/10 - Day 5, at 152.]

culture until after the administration of Gentamicin. [Id. at 46, 54.]

n. Dr. Das testified that there was no immediate threat to Mrs. Mamea that would have prohibited TAMC from performing a culture before it administered Gentamicin. [Id. at 149.]

o. The results of Mrs. Mamea's urine culture showed sensitivity to at least five other antibiotics, including Ciprofloxacin, none of which are nephrotoxic. [Tr. Trans., 10/14/10 - Day 7, at 121.]

p. TAMC switched the Gentamicin to Levaquin after the third dose because of concern for nephrotoxicity. [Id. at 100-01; Tr. Trans., 10/13/10 - Day 6, at 84-85.]

q. In TAMC's peak and trough readings, which are used to monitor Gentamicin toxicity, the trough associated with Mrs. Mamea's third dose of Gentamicin was a 4.0, which is considered "high critical" under TAMC's standards. TAMC switched to Levaquin because of the high trough reading. [Tr. Trans., 10/14/10 - Day 7, at 100-02; Tr. Exh. 2 at 27.]

r. The Court deemed Plaintiffs' witness, Keith Klein, M.D., to be an expert in the area of internal medicine and nephrology. [Tr. Trans., 10/5/10 - Day 1, at 69.]

s. Dr. Klein opined that TAMC's administration of Gentamicin to Mrs. Mamea was not necessitated by an emergency

and that the use of Gentamicin was contraindicated for Mrs. Mamea. [Id. at 85.]

t. Dr. Klein testified that TAMC's administration of Gentamicin to Mrs. Mamea in May 1997 breached the standard of care. [Id. at 91.]

u. The testimony of Plaintiffs' witnesses regarding whether the administration of Gentamicin breached the standard of care was more credible than the testimony of Defendant's witnesses on this issue.

v. Gentamicin can cause renal cell damage and renal cell death. Renal cell death is permanent because renal cells do not regenerate. [Tr. Trans., 10/13/10 - Day 6, at 88.]

w. Dr. Klein testified that, the damage that the Gentamicin caused Mrs. Mamea's kidneys is evidenced by her creatinine levels after the administration of Gentamicin. [Tr. Trans., 10/5/10 - Day 1, at 91-92.] After TAMC relieved the obstruction to Mrs. Mamea's kidneys, her creatinine levels should have rapidly returned to her baseline of 1.0. Mrs. Mamea's creatinine levels fell, but the fall was "markedly delayed for quite some period of time." [Id. at 93.]

x. He also testified that one of the reasons for the delay was that Gentamicin toxicity "impaired the rapid improvement and created a much more prolonged course." [Id.]

y. Mrs. Mamea's creatinine level never returned

to her baseline level of 1.0. The lowest creatinine level she had after the May 1997 administration of Gentamicin was between 1.8 and 2.2. [Id.]

z. Dr. Klein testified that Mrs. Mamea's Gentamicin-induced injury contributed to her ESRD. [Id. at 213.]

aa. The Court finds that Dr. Klein's testimony about the effects of TAMC's administration of Gentamicin on Mrs. Mamea is credible.

2. Conclusions of Law

a. TAMC's administration of Gentamicin to Mrs. Mamea in May 1997 constituted a breach of the applicable standard of care.

b. TAMC's breach of the standard of care caused permanent damage to Mrs. Mamea's kidneys and contributed to her ESRD.

c. The Court therefore finds in favor of Plaintiffs, based on the preponderance of the evidence, as to the medical negligence claim based on TAMC's administration of Gentamicin in May 1997.

D. Contrast-induced Injury

1. Findings of Fact

a. There is a note in Mrs. Mamea's TAMC medical records stating that, on March 14, 1997, TAMC administered a CT scan with contrast and that she needed IV hydration after the

procedure to flush the dye. [Tr. Exh. 2 at 1.]

b. Defendant has argued that this notation is in error because Mrs. Mamea's first encounter with TAMC was not until May 1997. According to Defendant, either the entry refers to a procedure performed at another facility or the date on the entry is in error and should refer to an IVP performed on December 8, 1997.

c. There are no other TAMC medical records in evidence indicating that TAMC saw Mrs. Mamea in March 1997. Defendant, however, failed to produce a complete set of TAMC's medical records for Mrs. Mamea to Plaintiffs in discovery, and at trial this Court excluded a number of pages of Mrs. Mamea's records that Defendant attempted to introduce into evidence but which Defendant never produced to Plaintiffs. Defendant argued that Ann Jones' testimony established that Plaintiffs obtained Mrs. Mamea's full TAMC record through their own efforts, but this Court found that there was no credible evidence that Plaintiffs, or anyone else on their behalf, actually received the records that Ms. Jones compiled.

d. Defendant also admitted in its Answer that TAMC performed a March 14, 1997 CT scan with contrast and that she received IV hydration after the CT scan. [Def.'s Answer to Complaint Filed Dec. 11, 2008, filed 3/26/09 (dkt. no. 13), at ¶ 3.3.]

e. Plaintiffs argue that Defendant's failure to meet its obligation to produce TAMC's complete records, which were in its sole care, custody and control, is the equivalent of spoliation of evidence. Plaintiffs urge the Court to find Defendant's failure to produce these records creates a presumption that the records would have been detrimental to Defendant's position and beneficial to Plaintiffs' position. Here, Plaintiffs would have the Court find that TAMC performed a CT scan with contrast and without prior hydration on March 14, 1997.

f. Although the facts of this case arguably warrants a spoliation finding, this Court declines to find that TAMC performed a CT scan with contrast on March 14, 1997 because such a ruling is not necessary to this Court's ultimate decision on Plaintiff's medical negligence claim based on the administration of contrast.

g. On December 8, 1997, TAMC performed an IVP with non-ionic contrast on Mrs. Mamea. There is a notation in the record that TAMC was "[u]nable to obtain CT due to weight[.]" [Tr. Exh. 2 at 42.]

h. Dr. Thibault testified that, in the 1990's, the standard was to use ionic-based contrast, which was more nephrotoxic than non-ionic contrast. [Tr. Trans., 10/13/10 - Day 6, at 52-54.]

i. Out of concern for Mrs. Mamea's kidney problems, Dr. Thibault used non-ionic contrast with the IVP because it was less nephrotoxic than ionic contrast. [Id.; Tr. Trans., 10/14/10 - Day 7, at 42-43.]

j. Dr. Thibault elected to use the non-ionic contrast in spite of its potential to cause nephrotoxic injury, because he believed Mrs. Mamea was at her baseline creatinine level. [Tr. Trans., 10/13/10 - Day 6, at 52-54.]

k. TAMC doctors believed that Mrs. Mamea's baseline creatinine level was between 1.8 to 2.5 at that time. [Tr. Trans., 10/12/10 - Day 5, at 77; Tr. Trans., 10/13/10 - Day 6, at 54, 81-82.]

l. Treating physician Dr. Lee testified that, had Mrs. Mamea's creatinine level been in the mid to upper two's when she presented in December, TAMC would not have administered contrast. [Tr. Trans., 10/14/10 - Day 7, at 91.]

m. On December 8, 1997, Plaintiff's creatinine level was 1.8, and on December 14, 1997, it was 2.4. [Id. at 47, 75.]

n. Plaintiff's expert Dr. Klein testified that contrast is very nephrotoxic and that, if the patient had even a minimally elevated creatinine level or any other condition, contrast could lead to kidney damage. [Tr. Trans., 10/5/10 - Day 1, at 125.] Contrast causes the kidney to constrict to reduce

the blood flow in the presence of a toxic agent. Hydration mitigates the effects of the contrast. [Id. at 127-28.]

o. Dr. Klein testified that, even though Mrs. Mamea's creatinine level was varying between 1.8 and 2.2 around December 8, 1997, that would still indicate that she had impaired kidney function. [Id. at 126.]

p. Dr. Klein testified that, if a patient has even slightly impaired kidney function, the standard of care requires that the physician administering the contrast consult with a nephrologist to ensure adequate hydration, unless the physician himself has significant experience with such procedures. [Id. at 128.]

q. There is no evidence in the record that TAMC consulted with a nephrologist prior to performing the IVP with non-ionic contrast.

r. Dr. Klein testified that it is not possible to perform an IVP without contrast, but it is possible to perform a CT scan without contrast. [Id. at 201.]

s. The notation in TAMC's record of the December 8, 1997 IVP stating that a CT scan was not possible because of Mrs. Mamea's weight is questionable because, in spite of the weight issue, TAMC was able to perform a scan on December 19, 1997. [Tr. Trans., 10/14/10 - Day 7, at 46; Tr. Exh. 2 at 38.]

t. Dr. Klein testified that the administration of contrast was one of the many ways that TAMC breached the standard of care. [Tr. Trans., 10/5/10 - Day 1, at 140.]

u. Dr. Klein testified that the rise in Mrs. Mamea's creatinine levels from December 8, 1997 to December 14, 1997 was clearly related to the administration of contrast. [Tr. Trans., 10/5/10 - Day 1, at 126.]

v. Dr. Klein testified that Mrs. Mamea's renal stone disease was complicated by, *inter alia*, the administration of contrast, and she suffered an injury because of the administration of contrast. [Id. at 156, 243.]

w. The Court finds that Dr. Klein's testimony about the effects of TAMC's administration of contrast in connection with the December 8, 1997 IVP is credible.

2. Conclusions of Law

a. TAMC's administration of contrast in connection with the IVP that it performed on Mrs. Mamea on December 8, 1997 constituted a breach of the applicable standard of care.

b. TAMC's breach of the standard of care caused permanent damage to Mrs. Mamea's kidneys and contributed to her ESRD.

c. The Court therefore finds in favor of Plaintiffs, based on the preponderance of the evidence, as to the

medical negligence claim based on TAMC's administration of contrast in connection with the December 8, 1997 IVP.

E. Administration of Gentamicin During December 1997

1. Findings of Fact

a. TAMC gave Mrs. Mamea three doses of perioperative prophylactic Gentamicin in December 1997. [Tr. Trans., 10/13/10 - Day 6, at 55.]

b. Mrs. Mamea's creatinine level was 1.8 on December 8, 1997. [Tr. Trans., 10/12/10 - Day 5, at 74; Tr. Trans., 10/13/10 - Day 6, at 52-53; Tr. Trans., 10/14/10 - Day 7, at 75.]

c. Defendant asserts that there were no signs of nephrotoxic injury as a result of the December 1997 administration of Gentamicin. [Tr. Trans., 10/13/10 - Day 6, at 55; Tr. Trans., 10/6/10 - Day 2, at 149.] Defendant points to the fact that Mrs. Mamea received the Gentamicin on December 11, 1997, and her creatinine level was 2.0 on December 12, 1997, which Defendant contends was within her baseline of 1.8 to 2.5. [Tr. Trans., 10/13/10 - Day 6, at 55; Tr. Trans., 10/14/10 - Day 7, at 42.]

d. This Court, however, has previously found that Mrs. Mamea's baseline creatinine level was 1.0 and that she never returned to that level after TAMC's treatment.

e. There is no evidence in the record of an

emergency situation that would have justified the administration of Gentamicin in December 1997 in light of Mrs. Mamea's history of kidney dysfunction.

f. After TAMC administered Gentamicin on December 11, 1997, Mrs. Mamea's creatinine level increased from an initial reading of 1.8 prior to the administration of Gentamicin to 2.0 on December 12, 1997 and 2.4 on December 14, 1997. [Tr. Exh. 2 at 17, 20, 23.]

g. The Court incorporates its previous, general findings about the toxic effects of Gentamicin and its specific findings about Gentamicin's effect on Mrs. Mamea.

2. Conclusions of Law

a. TAMC's administration of Gentamicin to Mrs. Mamea in December 1997 constituted a breach of the applicable standard of care.

b. TAMC's breach of the standard of care caused permanent damage to Mrs. Mamea's kidneys and contributed to her ESRD.

c. The Court therefore finds in favor of Plaintiffs, based on the preponderance of the evidence, as to the medical negligence claim based on TAMC's administration of Gentamicin in December 1997.

F. Failure to Implement a Follow-up Treatment Plan

1. Findings of Fact

a. During the January 6, 1998 out-patient procedure, the last encounter that Mrs. Mamea had with TAMC, TAMC physicians cleared Mrs. Mamea of her kidney stones as the remaining fragments were mere dust. [Tr. Trans., 10/14/10 - Day 7, at 48.] She was considered "stone-free at that point[.]" [Id. at 48.]

b. There are no documents in TAMC's medical records concerning the instructions, if any, that TAMC gave Mrs. Mamea after this last procedure.

c. Dr. Lee testified that, upon Mrs. Mamea's discharge, he emphasized the importance of taking her medications, and monitoring her dietary and fluid intake. He also testified that he warned her that fifty percent of stone formers have a recurrence within five years. [Id. at 50.]

d. Mrs. Mamea received a discharge summary after her hospitalization from December 11, 1997 to December 16, 1997. [Tr. Trans., 10/15/10 - Day 8, at 50-51; Tr. Exh. 102A.]

e. The discharge summary states that she was stable and in good condition. [Tr. Exh. 102A at 87-88.]

f. It included a follow-up appointment with Dr. Thibault at the Urology Clinic on December 19, 1997 with instructions to "RETURN SOON IF FEVER DEVELOPS, SEVERE PAIN, PUS

OR SEVERE BLEEDING DRAINS FROM WOUND." [Id. (emphasis in original.)]

g. The discharge summary instructed Mrs. Mamea to "drink plenty of fluids (2-3 quarts of fresh fruit juices and water) per day to prevent constipation." [Id. at 89.]

h. The discharge summary does not contain any information regarding the seriousness of Mrs. Mamea's condition of frequent formation of kidney stones, nor does it address the long-term implications or the management of such condition. Further, Mrs. Mamea testified that no one at TAMC spoke to her about the need for on-going care or the need to manage her condition with a specialist. [Tr. Trans., 10/15/10 - Day 8, at 20.]

i. Defendant's expert Dr. Das testified that the standard of care required that Mrs. Mamea's discharging physician ensure that she understood that the instruction to drink fresh fruit juice was limited to unsweetened lemon juice. Further, he acknowledged that there is no indication in Mrs. Mamea's records that this was done. [Tr. Trans., 10/12/10 - Day 5, at 168-70.]

j. Plaintiffs' expert Dr. Klein testified that TAMC's instructions regarding fresh fruit juices breached the standard of care because some fruit juices increase the likelihood of stone formation and because patients who are obese, like Mrs. Mamea was, should not drink juices with high caloric

content. [Tr. Trans., 10/5/10 - Day 1, at 115-16.]

k. Dr. Klein testified that, if Mrs. Mamea drank the wrong types of fruit juices for her type of kidney stones, it would make the problem worse. For example, cranberry juice tends to acidify the urine, which would increase her likelihood of stone formation if she had uric acid stones. This would also be contradictory of a prescription to take Allopurinol. Dr. Klein noted that it was unknown what type of stones Mrs. Mamea was forming during the time of her treatment at TAMC. [Id.]

l. Dr. Klein testified that this breach contributed to Mrs. Mamea's ESRD because it: increased her likelihood of forming new stones; increased her likelihood of having existing stones grow larger; and decreased the tendency, if any, for the existing stones to dissolve on their own. [Id. at 116.]

m. Although Dr. Lee informed Mrs. Mamea of the likelihood of the reoccurrence of kidney stones, TAMC's instructions were to return to the clinic if she experienced fever, severe pain, or problems with her incision site.

n. Mrs. Mamea was pain-free, and otherwise asymptomatic, from her final discharge from TAMC until she went to the hospital again in 2003. [Tr. Trans., 10/15/10 - Day 8, at 20-21, 34-35.]

o. Even in 2005, when Mrs. Mamea saw Dr. Lau,

she was clinically feeling fine. Dr. Lau and Dr. Tomita confirmed that patients with ESRD can be asymptomatic and appear to be fine. [Tr. Trans., 10/6/10 - Day 2, at 115, 119-20, 158.]

p. Dr. Klein testified that the standard of care in the management of stone disease requires follow-up with the patient to determine if the prescribed treatment is working. [Tr. Trans., 10/5/10 - Day 1, at 117-18.]

q. Dr. Klein also testified that, in reviewing Dr. Das' deposition and expert report, he noted that Dr. Das agreed that the standard of care required TAMC to follow up after Mrs. Mamea's December discharge to determine if her medications were working, and Dr. Das agreed that it appeared that TAMC did not do any follow-up. In fact, Dr. Klein noted that Dr. Das could have testified as Plaintiffs' expert witness. [Id. at 141-42.]

r. Dr. Klein testified that TAMC's lack of follow-up was one of the many ways TAMC breached the standard of care. [Id. at 120, 140.]

s. Dr. Klein testified that this breach of the standard of care contributed to or caused Mrs. Mamea's ESRD because TAMC prescribed ineffective treatment and discharged her with rising creatinine levels. [Id. at 120-21.]

t. The Court finds that Dr. Klein's testimony about the effects of TAMC's failure to implement a proper follow-

up treatment plan after it treated Mrs. Mamea in December 1997 and January 1998 is credible.

2. Conclusions of Law

a. TAMC's failure to implement a proper follow-up treatment plan after it treated Mrs. Mamea in December 1997 and January 1998 constituted a breach of the applicable standard of care.

b. TAMC's breach of the standard of care caused permanent damage to Mrs. Mamea's kidneys and contributed to her ESRD.

c. The Court therefore finds in favor of Plaintiffs, based on the preponderance of the evidence, as to the medical negligence claim based on TAMC's failure to implement a proper follow-up treatment plan after it treated Mrs. Mamea in December 1997 and January 1998.

G. Administration of Demerol

1. Findings of Fact

a. TAMC administered two doses of Demerol to Mrs. Mamea for pain during her May 1997 admission at TAMC. [Tr. Trans., 10/12/10 - Day 5, at 31.]

b. Demerol can cause neurotoxicity. Some of the signs that a patient suffered neurotoxicity from Demerol include seizures, encephalopathy and decreased mental status. Mrs. Mamea never suffered any of these symptoms. [Id. at 52.]

c. Plaintiffs' expert Dr. Klein testified that Demerol should never be administered to patients with kidney disease like Mrs. Mamea, and he opined that TAMC's administration of Demerol to Mrs. Mamea breached the standard of care. [Tr. Trans., 10/5/10 - Day 1, at 139-40.]

d. During opening statements, Plaintiffs' counsel conceded that the administration of Demerol did not cause Mrs. Mamea any harm. [Id. at 38.]

2. Conclusions of Law

a. Even assuming, *arguendo*, that TAMC's administration of Demerol to Mrs. Mamea was a breach of the applicable standard of care, Plaintiffs cannot prove the elements of their claim for medical negligence based on the administration of Demerol because they concede that the Demerol did not injure her.

b. The Court therefore finds in favor of Defendant, based on the preponderance of the evidence, as to the medical negligence claim based on TAMC's administration of Demerol to Mrs. Mamea.

H. Failure to Assess the Effectiveness of Prescribed Urine Alkalinizing Agent

1. Paragraph 3.6 of the Complaint alleges that, on or about December 11, 1997, TAMC prescribed Mrs. Mamea a urine alkalinizing agent to help dissolve the uric acid which was likely the cause of her uric acid stones. Plaintiffs allege that

TAMC's failure to follow up on the effectiveness of this prescription violated the standard of care.

2. This allegation is essentially subsumed in this Court's prior discussion of TAMC's failure to implement a proper follow-up treatment plan after Mrs. Mamea's December 1997 and January 1998 treatments.

3. Insofar as Plaintiffs' Complaint alleges a separate and additional medical negligence claim based on TAMC's failure to monitor the effectiveness of the urine alkalinizing agent, the Court finds in favor of Defendant on this claim based on the preponderance of the evidence.

I. Failure to Analyze Kidney Stone and Failure to Identify the Cause of Mrs. Mamea's Kidney Disease

1. Findings of Fact

a. The analysis that TAMC obtained for the stone fragment which Dr. Thibault removed from Mrs. Mamea in December 1997 showed that it contained eighty-five percent calcium oxalate monohydrate and fifteen percent calcium phosphate. [Tr. Trans., 10/13/10 - Day 6, at 59.]

b. Dr. Klein testified that the nidus, or core, of a stone is important because it "tells you what actually instigated the stone in the first place." Further, the layers that crystalize on top of the nidus may have a different composition. [Tr. Trans., 10/5/10 - Day 1, at 99.]

c. Dr. Thibault testified that, in every stone

analysis, the analysts look for a nidus and they report it if they find one. There was no nidus reported in Mrs. Mamea's stone analysis. [Tr. Trans., 10/13/10 - Day 6, at 72-73.]

d. The identification of the nidus, while ideal, is not necessary to develop and implement a treatment plan for recurrent kidney stones. Many patients pass their stones under circumstances where they are not able to retain them for analysis. [Tr. Trans., 10/14/10 - Day 7, at 109; Tr. Trans., 10/12/10 - Day 5, at 136.] Also, when urologists are only able to recover a fragment of the stone, it may not include the nidus. [Tr. Trans., 10/13/10 - Day 6, at 73.]

e. Although TAMC removed more than one stone from Mrs. Mamea in the course of her two hospitalizations, this was the only stone analysis it obtained. [Id.]

f. The results of the December 1997 stone analysis supported the use of Potassium Citrate and Allopurinol to treat the calcium based stones. [Id. at 59.] This was consistent with the results of the May 1997 twenty-four-hour urine analysis (UroRisk profile), which indicated that these oral medications were appropriate to decrease the risk of stone recurrence. [Tr. Trans., 10/6/10 - Day 2, at 80.]

g. Dr. Klein testified that the standard of care required that TAMC determine what the nidus of Mrs. Mamea's stones showed. Based on his review of Dr. Das' deposition and

expert report, Dr. Klein testified that Dr. Das agreed to this.
[Tr. Trans., 10/5/10 - Day 1, at 28, 102.]

h. Dr. Klein opined that TAMC breached the standard of care by failing to determine the nidus of Mrs. Mamea's stones. [Id. at 103.]

i. Dr. Klein testified that this resulted in, or caused, Mrs. Mamea's ESRD because she did not receive effective treatment to prevent the kidney stones that progressively damaged her kidneys. [Id.]

2. Conclusions of Law

a. Insofar as TAMC did perform a stone analysis in December 1997, albeit with a fragment rather than a stone, and this analysis was consistent with the results of the May 1997 UroRisk profile, the Court concludes that there was support for the prescription of Potassium Citrate and Allopurinol to prevent the risk of stone recurrence.

b. Although the stone analysis did not reveal the nidus of Mrs. Mamea's stones, TAMC's actions regarding stone analysis did not constitute a breach the standard of care.

c. The Court finds in favor of Defendant, based on the preponderance of the evidence, as to Plaintiffs' medical negligence claim based on TAMC's failure to determine the nidus of her kidney stones.

IV. Comparative Negligence Defense

Defendant has raised the affirmative defense of comparative negligence. Defendant argues that Mrs. Mamea was negligent in: failing to seek follow-up treatment for five years after leaving TAMC in January of 1998; failing to inform the TAMC and LBJ physicians that she was not returning to American Samoa in January of 1998; and neglecting her health from January 1998 to September of 2003 so that she has a creatinine level of 10.0 in 2003 and a staghorn calculus, which Defendant alleges significantly contributed to or caused her ESRD and total kidney failure.

A. Findings of Fact

1. Defendant presented considerable evidence about the care that Mrs. Mamea received at LBJ, which might suggest that the care she received at LBJ injured her. Defendant's expert Dr. Das, however, testified that Mrs. Mamea's kidneys were salvageable and that any damage to her kidneys was reversible at the time she was first admitted to TAMC. [Tr. Trans., 10/12/10 - Day 5, at 166; Das Depo. Designation at 44.]

2. Defendant also presented considerable evidence about the care that Mrs. Mamea received at Kaiser, emphasizing significant instances of non-compliance with her doctors' instructions. For example, Mrs. Mamea missed several appointments and she repeatedly refused her doctors'

recommendations to begin dialysis. Dr. Das, however, testified that the damage to Mrs. Mamea's kidneys was irreversible by the time she presented at Kaiser in 2003 and that nothing that Kaiser could have done caused Mrs. Mamea's ESRD. [Tr. Trans., 10/12/10 - Day 5, at 158; Das Depo. Designation at 75-76.]

3. Mrs. Mamea did not seek treatment for her kidneys between leaving TAMC's care in January 1998 and presenting at Kaiser in September 2003. [Tr. Trans., 10/15/10 - Day 8, at 34-35.]

4. Based on her discharge information and condition at the time of discharge, Mrs. Mamea believed she was fine. She was pain-free, and otherwise asymptomatic, from her final discharge from TAMC until she presented at Kaiser. [Id. at 20-21, 34-35.]

5. Dr. Lau and Dr. Tomita confirmed that patients with ESRD can be asymptomatic and appear to be fine. [Tr. Trans., 10/6/10 - Day 2, at 115, 119-20, 158.]

6. Mrs. Mamea never told anyone at TAMC or LBJ that she was not going to return to American Samoa. [Tr. Trans., 10/14/10 - Day 7, at 50; Tr. Trans., 10/15/10 - Day 8, at 59-61.]

7. Defendant did not present any evidence that TAMC attempted to follow up with Mrs. Mamea but was unable to do so because she did not inform TAMC that she did not return to American Samoa, nor did Defendant present any evidence of the

follow-up treatment or care which would have been available to Mrs. Mamea had she informed TAMC or LBJ that she was not returning to American Samoa.

8. When Mrs. Mamea presented at Kaiser on September 8, 2003, she had a creatinine level of 10, a staghorn calculus in her left kidney and obstruction with nephrosis in her right kidney. [Tr. Exh. 108 at 777.]

9. Dr. Tomita noted that, over a period of approximately nine months in 2002, Plaintiff ingested large doses (four to five tabs daily) of the over-the counter pain pill Alleve, while self-treating a gum disorder. [Tr. Trans., 10/6/10 - Day 2, at 173-74.] Alleve is known to be nephrotoxic. [Id. at 174.]

10. Dr. Tomita testified that taking the amount of Alleve pills that Mrs. Mamea took for nine months can exacerbate kidney problems. [Id. at 174-75.]

11. When Mrs. Mamea reported the amount of Alleve she had been taking, Dr. Tomita was concerned that Mrs. Mamea may have had a creatinine level of 10 since she had been taking the Alleve. [Id. at 182-83.]

12. Dr. Tomita, however, testified that a person cannot have a creatinine level of 10 for more than a year. Usually, a creatinine level of 10 can only be tolerated for a few months. [Id. at 183.]

13. Defendant emphasizes that, in addition to Mrs. Mamea's kidney conditions, she suffers from: morbid obesity; Diabetes Mellitus (Type II); Hypertension; Obstructive Sleep Apnea; Asthma; Reactive Airway Disease; Spinal Stenosis; Gastroesophageal Reflux Disease; and Anemia. [Tr. Exh. 26 at 16-17.]

14. With the exception of Mrs. Mamea's weight, the evidence adduced at trial established that these conditions occurred after Mrs. Mamea's renal failure.

15. Although Mrs. Mamea was arguably obese prior to her treatment at TAMC, there is no credible evidence that her obesity was a cause of her ESRD.

B. Conclusions of Law

1. The applicable statute addressing contributory negligence is Haw. Rev. Stat. § 663-31, which provides, in pertinent part:

(a) Contributory negligence shall not bar recovery in any action by any person or the person's legal representative to recover damages for negligence resulting in death or in injury to person or property, if such negligence was not greater than the negligence of the person or in the case of more than one person, the aggregate negligence of such persons against whom recovery is sought, but any damages allowed shall be diminished in proportion to the amount of negligence attributable to the person for whose injury, damage or death recovery is made.

(b) In any action to which subsection (a) of this section applies, the court, in a nonjury trial, shall make findings of fact or, in a jury trial,

the jury shall return a special verdict which shall state:

(1) The amount of the damages which would have been recoverable if there had been no contributory negligence; and

(2) The degree of negligence of each party, expressed as a percentage.

(c) Upon the making of the findings of fact or the return of a special verdict, as is contemplated by subsection (b) above, the court shall reduce the amount of the award in proportion to the amount of negligence attributable to the person for whose injury, damage or death recovery is made; provided that if the said proportion is greater than the negligence of the person or in the case of more than one person, the aggregate negligence of such persons against whom recovery is sought, the court will enter a judgment for the defendant.

2. Section 663-31 "bars a plaintiff's recovery only if the plaintiff's negligence is greater than the negligence of all defendants involved. If recovery is not barred, [Haw. Rev. Stat.] § 663-31 then reduces the plaintiff's recovery against the defendant or defendants by the proportion of fault of the negligent plaintiff." Rapoza v. Parnell, 83 Hawai'i 78, 82, 924 P.2d 572, 576 (Ct. App. 1996).

3. Mrs. Mamea's alleged contributory or comparative negligence is an affirmative defense, and Defendant bears the burden of proof on this issue. See Murakami v. Maui Cnty., 6 Haw. App. 516, 521, 730 P.2d 342, 346 (Ct. App. 1986), aff'd 69 Haw. 43, 731 P.2d 787 (1987).

4. Insofar as Mrs. Mamea's kidney condition was asymptomatic between leaving TAMC in January 1998 and presenting at Kaiser in September 2003, and insofar as TAMC did not instruct her regarding on-going treatment for her kidney condition, Mrs. Mamea was not negligent in failing to seek treatment for her kidney condition during that period.

5. Insofar as Defendant has not proven that Mrs. Mamea's failure to inform TAMC or LBJ that she was not returning to American Samoa either prevented TAMC from conducting follow-up or prevented Mrs. Mamea from accessing follow-up services available at TAMC or LBJ, Mrs. Mamea's failure to inform TAMC or LBJ that she was not returning to American Samoa was not negligent.

6. Mrs. Mamea reasonably believed she was generally in good health from January 1998 to September of 2003, with the exception of the gum disorder which prompted her to use Alleve. Although high doses of Alleve can exacerbate kidney problems, Defendant did not prove that it was a cause of her staghorn calculus and creatinine level of 10. Mrs. Mamea used the Alleve during 2002, and Kaiser discovered her staghorn calculus and creatinine level of 10 on September 8, 2003. Dr. Tomita testified that a person cannot tolerate a creatinine level of 10 for a year; a person usually can only tolerate it for a few months. This discredits Defendant's claim that Mrs. Mamea's use

of Alleve was a cause of her staghorn calculus.

7. Defendant did not carry its burden of proving that Mrs. Mamea neglected her health from January 1998 to September 2003.

8. The Court concludes, by a preponderance of the evidence, that Defendant has neither proven that Mrs. Mamea was negligent nor has Defendant proven that her negligence was a proximate cause of her injury.

9. The Court therefore concludes that Plaintiffs' recovery in this action is neither barred nor reduced by comparative negligence.

V. Loss of Consortium and Damages

A. Findings of Fact

1. Plaintiffs have been married since December 5, 1996. [Tr. Trans., 10/8/10 - Day 4, at 139.] Mr. Mamea is forty-one years old. [Id. at 134.] Mrs. Mamea is thirty-seven years old. [Tr. Trans., 10/15/10 - Day 8, at 6.]

2. They have one child, daughter Jaredynn, who is normal and healthy. They lost their only other child, a son, at birth in 2006. [Id. at 26-27; Tr. Trans., 10/8/10 - Day 4, at 151-52.]

3. Mr. Mamea works as a cab driver so that he can schedule his time to take care of his daughter and wife and drive Mrs. Mamea to her dialysis and many other medical appointments.

[Tr. Trans., 10/8/10 - Day 4, at 147-51.] It is impossible for him to make a decent living under these circumstances.

Mrs. Mamea has not been able to work since she went on dialysis in September of 2005 because of the dialysis' effect on her body.

[Tr. Trans., 10/15/10 - Day 8, at 10-18.]

4. Before she went on dialysis, Plaintiffs had a good life together. They were both working and enjoyed recreational activities together and with their friends. [Tr. Trans., 10/8/10 - Day 4, at 147-48.] Mrs. Mamea enjoyed taking care of their home and it was important to her because in the Samoan culture that is expected of her, and she also expected it of herself. [Tr. Trans., 10/15/10 - Day 8, at 13-14, 28.] She was feeling well and did not have blood pressure problems, anemia, congestive heart failure or the other medical issues she now faces because of her kidney disease and fatigue. [Id. at 72, 79-80.]

5. Mrs. Mamea graduated from high school and attended community college for a year and a half. [Id. at 8.] She worked at several jobs in American Samoa and in Hawai`i after she and her husband moved to Hawai`i. She worked at her last job for over a year before she had to quit when she was forced to go on dialysis. She was a cashier making \$7.50 to \$7.75 an hour. She enjoyed her job and her co-workers and misses working. [Id. at 17.]

6. Defendant conceded during its opening statement

that Plaintiffs have been devastated by Mrs. Mamea's ESRD, and the Court finds that this devastation was obvious from their testimony. Plaintiffs have been brought to the brink of suicide because of Mrs. Mamea's ESRD and are hanging on by their faith and their love for their baby girl. [Tr. Trans., 10/8/10 - Day 4, at 147, 152; Tr. Trans., 10/15/10 - Day 8, at 28.] The Court finds their testimony regarding the major impact of Mrs. Mamea's ESRD on their lives credible and persuasive.

7. Mrs. Mamea has suffered physical pain and suffering, extreme emotional pain and suffering, scarring and disfigurement, loss of enjoyment of life, lost wages, fear, anxiety, depression, and substantial loss of life expectancy. Plaintiffs' lives now revolve around Mrs. Mamea's medical condition and, especially now with their new baby, she is in constant fear for her own health as well as the impact of her health on her daughter.

8. At the time of trial, Mrs. Mamea's mother was visiting from American Samoa and staying with Plaintiffs to help them take care of their daughter. Plaintiffs expected her to return to American Samoa about a month after the trial. [Tr. Trans., 10/8/10 - Day 4, at 153; Tr. Trans., 10/15/10 - Day 8, at 14.]

9. Once her mother returns to American Samoa, Mrs. Mamea will have no one to help her when her husband is at

work. On the days that she does not feel well enough to take care of Jaredynn, Mr. Mamea will have to stay home with them. [Tr. Trans., 10/15/10 - Day 8, at 15.] The fact that she cannot fulfill the role of wife and mother as she wants to saddens and worries Mrs. Mamea. [Id. at 28.]

10. Mr. Mamea suffers from depression, stress and anxiety. [Tr. Trans., 10/8/10 - Day 4, at 184.] His life revolves around Mrs. Mamea's medical condition and needs. He cannot work a regular job because he has to take her to dialysis three times every week in addition to all of her other medical appointments. [Id. at 147-50.] Mrs. Mamea is not physically capable of doing work around their house, so those duties have fallen on Mr. Mamea's shoulders as well. [Tr. Trans., 10/15/10 - Day 8, at 28.]

11. Plaintiffs testified that, once Mrs. Mamea's mother returned to American Samoa, Mr. Mamea would bear most of the childcare responsibility because, especially on dialysis days, Mrs. Mamea is exhausted. [Id. at 14-15; Tr. Trans., 10/8/10 - Day 4, at 153.]

12. Plaintiffs' damages testimony was, with few exceptions, unchallenged by Defendant. Plaintiffs' damages witnesses included the following experts who submitted expert

reports: (a) certified life care planner Karen L. Klemme, R.N.;¹⁴ [Tr. Exh. 26 (Life Care Plan);] (b) neurologist Peter W. Rossi, M.D.,¹⁵ who collaborated with Ms. Klemme in developing Mrs. Mamea's Life care Plan; [Tr. Exh. 38 (report);] and (c) economist Thomas A. Loudat, Ph.D.,¹⁶ who valued Mrs. Mamea's wage loss and calculated the present value of Mrs. Mamea's Life Care Plan [Tr. Exhs. 35 (report), 35A (tables)]. Plaintiffs also called Lorelei Hong, who testified regarding Mrs. Mamea's Kaiser medical bills, and Kaiser nephrologist Thomas Chen, M.D., who reviewed those bills and validated (with minor exceptions noted) them as being related to Mrs. Mamea's ESRD.

13. Based on the exhibits admitted in evidence at trial, [Tr. Exhs. 10D, 10E,] with some adjustments, the Court finds that Mrs. Mamea's Kaiser bills total \$1,040,172.40.

14. The Court finds these witnesses credible and their testimony persuasive.

15. The Court finds that, as a direct and proximate result of Defendant's negligence, Mrs. Mamea suffered lost wages

¹⁴ The Court accepted Ms. Klemme as an expert in nursing, rehabilitative nursing, and life care planning. [Tr. Trans., 10/7/10 - Day 3, at 160-62.]

¹⁵ The Court accepted Dr. Rossi as an expert in rehabilitative medicine. [Tr. Trans., 10/7/10 - Day 3, at 21-23.]

¹⁶ The Court accepted Dr. Loudat as an expert in economic analysis. [Tr. Trans., 10/8/10 - Day 4, at 74.]

in the amount of \$339,493.

16. Defendant stipulated to the Fresenius dialysis bills in the amount of \$318,262.17.

17. Although Defendant raised reasonable arguments contesting certain items in Mrs. Mamea's Kaiser bills, Defendant did not present any evidence of what the total due to Kaiser would be without those items.

18. This Court therefore adopts the testimony of Plaintiffs' witnesses that all of the items in the Kaiser bills were medically reasonable and necessary for the care and treatment of Mrs. Mamea's ESRD and all related conditions, and other associated care.

19. According to Dr. Klein, had Mrs. Mamea received proper treatment at TAMC, she would have had sixty to seventy dialysis-free years instead of the approximately thirty years she now has. [Tr. Trans., 10/5/10 - Day 1, at 104.]

20. According to Dr. Klein, Mrs. Mamea's life expectancy on dialysis without a successful transplant is thirty years or more from the start of dialysis (which Mrs. Mamea began five years before trial), and with a transplant over forty years. Dr. Chen, Mrs. Mamea's current Kaiser nephrologist, testified that Mrs. Mamea is doing well and her blood pressure is under control.

21. Mrs. Mamea is stronger and in better general

health than the average dialysis patient, as evidenced by the fact that she was able to conceive and give birth to a healthy daughter while she was on dialysis. [Tr. Trans., 10/6/10 - Day 2, at 195-96 (Dr. Tomita testified that it is rare for a person to become pregnant while on dialysis).]

22. The Court finds, by a preponderance of the evidence, that Mrs. Mamea will need a life care plan for her injuries caused by Defendant's negligence and that Ms. Klemme's Life Care Plan is a reasonable representation of Mrs. Mamea's future medical and other needs. The Court further finds that the items in the plan are medically necessary except as follows:

a. While there was evidence that home hemodialysis¹⁷ would be desirable, Plaintiffs did not prove that it was medically reasonable and necessary. The costs and care associated with home hemodialysis must be excluded from the Life Care Plan.

b. Ms. Klemme argued that it was necessary for Plaintiffs to purchase a single-family home in order to accommodate the home hemodialysis. The costs associated with the purchase of a single-family home therefore must also be excluded from the Life Care Plan.

c. The Court, however, concludes that, because

¹⁷ Hemodialysis is the most common way that adults do dialysis. [Tr. Trans., 10/6/10 - Day 2, at 119.]

of Mrs. Mamea's injury, Plaintiffs' current residence (a fourth-floor apartment in a building without an elevator) places her at risk of further injury. But for Defendant's negligence, this risk would not exist. Mrs. Mamea's Life Care Plan should therefore include the difference between the rent that Plaintiffs currently pay and the rent for an apartment which is either on the first floor or in a building with an elevator.

d. Plaintiffs did not establish that the costs and care associated with Mrs. Mamea's anticipated future hospitalizations were medically reasonable and necessary because Ms. Klemme did not consult with Mrs. Mamea's current Kaiser treating physicians on this issue, or on any part of her Life Care Plan.¹⁸ [Tr. Trans., 10/8/10 - Day 4, at 66.] The costs associated with the anticipated future hospitalizations therefore must be excluded from the Life Care Plan.

e. Plaintiffs did not establish that the costs and care associated with a kidney transplant are medically reasonable and necessary because there is no evidence that a kidney transplant was viable option for Mrs. Mamea at the time of trial. She was not on any transplant waiting list at the time of trial, and her Kaiser physicians testified that she must lose

¹⁸ The Court DENIES Plaintiffs' request to reconsider the conclusion that Plaintiffs failed to prove their entitlement to the costs associated with Mrs. Mamea's future hospitalizations. [Suppl. Submission, filed 12/20/10 (dkt. no. 165).]

weight before she can be eligible for a transplant. There is no evidence, however, of how much weight she must lose nor is there evidence of a viable plan for Mrs. Mamea to lose the weight.

Mrs. Mamea testified she has been unable to lose weight in spite of her efforts. The costs associated with a kidney transplant therefore must also be excluded from the Life Care Plan.

f. Plaintiffs did not establish that the costs and care associated with bariatric surgery are medically reasonable and necessary because there is no evidence that any of Mrs. Mamea's treating physicians have recommended this as a viable option for her to lose the weight necessary to become eligible for a kidney transplant. The costs associated with bariatric surgery therefore must also be excluded from the Life Care Plan.

23. Plaintiffs filed supplemental documents from Dr. Loudat and Ms. Klemme adjusting the Life Care Plan and the present day valuation thereof to reflect the Court's rulings on the Life Care Plan. [Suppl. Submissions, filed 12/20/10 (dkt. no. 165); Court's Decision, filed 11/15/10 (dkt. no. 164), at 10-11.]

24. The present day valuation of Mrs. Mamea's future medical costs ranges from \$3,655,939 for a life expectancy of twenty-five years from the trial to \$4,313,771 for a life expectancy of thirty years from the trial. [Id., Exh. A at 1.]

25. The present day valuation of the average rental cost increase discussed above ranges from \$100,843 for a life expectancy of twenty-five years from the trial to \$117,174 for a life expectancy of thirty years from the trial. [Id., Exh. D at 1.]

B. Conclusions of Law

1. Mrs. Mamea is entitled to be compensated for: the medical and other related expenses that she has incurred and will incur in the future as a result of Defendant's negligence; the wages that she has lost and will lose because she is not able to work as a result of Defendant's negligence; and the value of the loss of twenty to thirty years of life with her family beyond her current life expectancy.

2. The Court concludes that Mrs. Mamea's life expectancy is thirty years from the time of trial because the evidence established that she is stronger and in generally better health than the average dialysis patient.

3. Under Hawai'i law, loss of consortium is a derivative action based on the damages sustained by the injured spouse. Brown v. KFC Nat'l Mgmt. Co., 82 Hawai'i 226, 241, 921 P.2d 146, 161 (1996). Loss of consortium claims, however, are "only derivative in the sense that [they do] not arise unless one's spouse has sustained a personal injury. The loss of consortium claim is a claim for damages independent and separate

from the spouse's claim for damages." Id. (citations and quotation marks omitted) (alteration in original).

4. Insofar as Mr. Mamea's spouse has sustained a personal injury for which Defendant is liable, the Court finds in favor of Plaintiffs on Mr. Mamea's loss of consortium claim based on the preponderance of the evidence.

5. Mr. Mamea is entitled to be compensated for the loss of a life with his wife dialysis-free, and the loss of her twenty to thirty years sooner than would have otherwise been the case.

C. Award

1. This Court finds, by a preponderance of the evidence, that Plaintiffs have proven that Mrs. Mamea has suffered general damages for physical pain and suffering, emotional distress, scarring and disfigurement, loss of enjoyment of life, and loss of life expectancy caused by Defendant's negligence as follows:

General Damages - \$1,250,000.00.

2. This Court further finds, by a preponderance of the evidence, that Plaintiffs have proven that Mrs. Mamea has incurred lost wages, and past medical and other expenses caused by Defendant's negligence as follows:

Past Medical Expenses

Kaiser Permanente - \$1,040,172.40

Fresenius - \$ 318,262.17

Lost Wages - \$ 339,493.00.

3. This Court further finds, by a preponderance of the evidence, that Plaintiffs have proven that Mrs. Mamea will incur future medical and other expenses caused by Defendant's negligence and that the present day value of those expenses are as follows:

Life Care Plan - \$4,313,771.00

Rent Cost Increase - \$ 117,174.00.

4. The Court therefore AWARDS Mrs. Mamea a total of **\$7,378,872.57.**

5. Finally, the Court finds, by a preponderance of the evidence, that Plaintiffs have proven that Mr. Mamea has suffered loss of consortium and AWARDS him the amount of **\$150,000.00.**

ORDER

AND NOW, following the conclusion of a bench trial in this matter, and in accordance with the foregoing Findings of Fact and Conclusions of Law, it is HEREBY ORDERED that judgment shall enter in favor of Plaintiffs and against Defendant in the above matter in the amount of **\$7,378,872.57** to Plaintiff Siuila Mamea and **\$150,000.00** to Plaintiff Felise Mamea.

The Court ORDERS Defendant to pay these amounts to Plaintiffs, via Plaintiffs' counsel, by no later than sixty days

after the entry of judgment in this case. If there are any post-judgment motions, Defendant shall pay these amounts by no later than forty-five days after this Court has ruled on the post-judgment motions. If there are any appeals from the judgment in this case, Defendant should move for a stay of the judgment pending the resolution of the appeal. If these awards are affirmed on appeal, Defendant shall pay these amounts by no later than thirty days after the final resolution of this case on appeal, including any petitions for certiorari to the United States Supreme Court.

IT IS SO ORDERED.

DATED AT HONOLULU, HAWAII, February 18, 2011.



/S/ Leslie E. Kobayashi
Leslie E. Kobayashi
United States District Judge

FELISE MAMEA AND SIUILA MAMEA V. UNITED STATES OF AMERICA; CIVIL NO. 08-00563 LEK; FINDINGS OF FACT AND CONCLUSIONS OF LAW AND ORDER