IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF HAWAII

JOHN DAVID WARREN, JR., AND LAURA WARREN, Individually, and as Guardians Ad Litem and Next Friends of Their Minor Children, D.G.W, A.J.W., J.D.W. III, and A.A.W.,

Plaintiffs,

v.

UNITED STATES OF AMERICA; HAWAII PACIFIC HEALTH, a Domestic Nonprofit Corporation; HAWAII PACIFIC HEALTH PARTNERS, INC., a Domestic Nonprofit Corporation; KAPIOLANI MEDICAL SPECIALISTS, a Domestic Tax Exempt Organization; and DEVIN PUAPONG, M.D.,

Defendants.

CIV. NO. 19-00232 JMS-WRP

PRELIMINARY FINDINGS OF FACT AND CONCLUSIONS OF LAW

# PRELIMINARY FINDINGS OF FACT AND CONCLUSIONS OF LAW

## I. INTRODUCTION—OVERVIEW

The court conducted a non-jury trial from August 2−12, 2022, in this medical malpractice action brought under the Federal Tort Claims Act ("FTCA"), 28 U.S.C. §§ 1346, 2671−80, by Plaintiffs John David Warren, Jr., and Laura Warren, individually and as guardians ad litem and next friends of their minor

children, D.G.W., A.J.W., J.D.W. III, and A.A.W. (collectively, "Plaintiffs"). After a period for preparation of trial transcripts, the parties filed post-trial proposed Findings of Fact and Conclusions of Law ("FOFCOLs" or "Findings and Conclusions"). *See* ECF Nos. 440, 441. The court has reviewed those submissions and has analyzed and given considerable thought to the extensive evidentiary record and trial testimony, and now issues these Preliminary Findings and Conclusions under Federal Rule of Civil Procedure 52(a).[1]

The Findings and Conclusions are "preliminary" only to the degree that additional submissions are necessary—as was discussed with the parties during trial—as to calculations for the present value of amounts of damages found by the court, and for lost earning capacity. After considering those supplemental filings, the court will issue final Findings and Conclusions and direct the entry of judgment.

[1] To the extent any Findings may also be deemed to be Conclusions, they shall also be considered Conclusions. Similarly, to the extent any Conclusions may be deemed to be Findings, they shall be considered Findings. *See In re Bubble Up Del., Inc.*, 684 F.2d 1259, 1262 (9th Cir. 1982) ("The fact that a court labels determinations 'Findings of Fact' does not make them so if they are in reality conclusions of law.") (citation omitted).

Here, the court departs from a more traditional format consisting of numbered paragraphs and separate sections labelled "Findings of Fact" and "Conclusions of Law" as is done in some other cases and as submitted by the parties in their proposed FOFCOLs. The issues in this case lend themselves to a more narrative-type format. The court's resolution of relevant contested issues is controlling whether stated in the Introduction, Background, or Findings and Conclusions sections that follow. Throughout, the court cites to evidence (testimony, declarations, and exhibits) for reference. Where facts are obvious or uncontested, however, the court sometimes omits such references.

As detailed to follow, by a preponderance of the evidence, the court finds and concludes that the United States of America ("United States" or "Defendant") is liable under Hawaii law applicable under the FTCA. As for D.G.W.,[2] the court finds general (non-economic) damages of $5,375,000.00 and special (economic) damages totaling $18,572,104.71. As for Laura Warren, the court finds general (non-economic) damages of $1,000,000.00, and special (economic) damages totaling $2,047,650.00 for past skilled care (whether provided by Laura or John Warren).[3] The court will also supplement these figures with additional damages for lost earning capacity, ranging from approximately $1.3 million to $3 million, depending on further Findings after new submissions. These figures are subject to application of Hawaii Revised Statutes ("HRS") § 663-15.5, and supplemental briefing (and perhaps testimony) regarding present value and D.G.W.'s lost earning capacity.

[2] Throughout much of this case, the court and the parties used initials to refer to D.G.W., who is now over six-years old. *See* Fed. R. Civ. P. 5.2(a)(3). For ease of reference at trial and in the trial exhibits, however, the parties agreed to use D.G.W.'s first name or full unredacted name. Here, the court reverts to using only her initials, given her status as a minor.

[3] After the close of evidence, Plaintiffs withdrew claims made on behalf of John Warren for emotional distress and loss of consortium. *See* Tr. V.9-32. Throughout these Preliminary Findings and Conclusions, the court cites to the trial transcript ("Tr.") by volume ("V.") and page or page range. For example, "Tr. V.9-32" is page 32 of volume 9 of the trial transcripts, and "Tr. V.9-32 to 35" would be pages 32 through 35 of volume 9.

## II. INTRODUCTION—PRIMARY TRIAL ISSUES

Shortly after 5:00 p.m. on September 22, 2016, the parents of one-month old D.G.W. brought her to the emergency department at Tripler Army Medical Center ("Tripler") in critical condition. She had a distended, acute abdomen, and her parents described her color sometime in the prior three hours as yellow from the waist up and blue from the waist down. *See, e.g.*, Exhibit ("Exh.") J-1 at USA000052 and USA000059;[4] Tr. V.6-158. The attending emergency room ("ER") physician, Dr. James Fitch, later described her as one of the most critically ill infants he has treated in nearly 20 years of experience as an ER physician. *See* ECF No. 416-1 at PageID.7371.

D.G.W. "coded" shortly after arriving at Tripler—she stopped breathing and her heart rate slowed to 82 beats per minute (dangerously low for an infant).[5] *Id.* at PageID.7370; Tr. V.6-163. After life-saving measures were performed, D.G.W.'s breathing and heart rate stabilized in about half an hour, but Dr. Fitch "remained concerned for continuing high risk of death because there was no definitive diagnosis of the cause of the code." ECF No. 416-1 at PageID.7370.

[4] The court cites to trial exhibits as either joint or by party, followed by a bates number if used. For example, "Exh. J-1 at USA000052" is joint exhibit one at bates number USA000052; "Exh. P-1" would be Plaintiffs' exhibit one, and "Exh. D-1" would be Defendant's exhibit one.

[5] Dr. Fitch explained that "[i]n infants this age you do not wait for the heart rate to go to zero to start [cardiopulmonary resuscitation]." Tr. V.6-163.

No prior bilious vomiting was noted, but approximately 285 milliliters of brownish fluid was removed from D.G.W.'s stomach through an orogastric tube. Tr. V.1-121; Tr. V.6-100. According to Dr. Fitch, D.G.W.'s differential diagnosis—which basically is a working list of possible conditions that could be causing symptoms[6]—included "[m]alrotation with volvulus, abdominal compartment syndrome, severe inflammatory reaction to nutrition, overwhelming infection causing severe sepsis, bowel ischemia/necrosis with perforation, and trauma." ECF No. 416-1 at PageID.7370. When she was officially or administratively transferred from the emergency department to Tripler's pediatric intensive care unit ("PICU") at about 7:55 p.m. that evening, Dr. Fitch's "clinical impression" of D.G.W. was documented as:

> Metabolic acidosis respiratory acidosis
> Rule out partial small obstruction associated with volvulus
> Rule out volvulus

Exh. J-1 at USA000056.

One of Plaintiffs' expert witnesses, Dr. Carlos Maggi, credibly explained that "[i]n layman's terms, [volvulus is] basically the intestine rotating on its own axis and producing an obstruction of the bowel, obstruction of the vessels

[6] A "differential diagnosis" is a type of list or analytical process; it is not an actual clinical diagnosis. Stedman's Medical Dictionary defines "differential diagnosis" as "the determination of which two or more diseases with similar symptoms is the one from which the patient is suffering, by a systematic comparison and contrasting of the clinical findings." *Stedman's Medical Dictionary* 531 (28th ed. 2006).

that nourish the intestinal tract." Tr. V.1-32. According to Dr. Maggi, "volvulus is considered the most critical and the most . . . significant catastrophic intraabdominal event . . . in a newborn's life . . . [b]ecause if it's not treated appropriately, if it's not ruled out appropriately and [on] a timely basis, the child is going to . . . either die, or . . . survive with [a] significant amount of handicaps, including the need to resect [a] significant amount of bowel." Tr. V.1-36 to 37.[7]

As it turns out, D.G.W. indeed had a midgut volvulus. But the volvulus was "not treated . . . [on] a timely basis." *Id.* at 37. Although D.G.W. survived, she now has "a significant amount of handicaps" after losing a "significant amount of bowel." *Id. Much of the trial centered on the circumstances of the untimely diagnosis and treatment of D.G.W.'s midgut volvulus.*

Radiologic or imaging tests—ultrasound, X-ray, and a computerized tomography ("CT") scan without IV contrast—were performed on D.G.W. while she was admitted to the Tripler ER in an attempt, among other things, to rule out or to confirm "malrotation with volvulus," which remained on her differential diagnosis. But an upper gastrointestinal ("UGI") study was never done. *See, e.g.*, Tr. V.1-41, 68. Expert witnesses from both sides agreed that a UGI study is the

[7] A defense expert agreed as to the seriousness of volvulus. *See* Tr. V.7-40 ("[I]f nothing was done, number one, she was going to lose a lot of her intestinal tract. Number two, she was going to die.") (Testimony of Dr. Thomas Wiswell).

"gold standard" radiologic test to diagnose or rule out volvulus. *See, e.g.*, Tr. V.1-40 to 41; Tr. V.3-23; Tr. V.7-60. *The omission of a UGI study, and reasons for the omission, were also central themes at trial.*

Proper treatment of a volvulus requires prompt surgery. *See, e.g.*, Tr. V.1-175; Tr. V.7-35. Tripler did not have an in-house fully-qualified pediatric surgeon available, but it had contracted with Kapiolani Medical Specialists for services of on-call pediatric surgeons, as there are (or were at that time) only three fully-qualified pediatric surgeons in Hawaii. *See* ECF No. 379-1 at 9 to 13, PageID.6678 to 6681; Tr. V.5-170; Exh. J-4. Sometime after D.G.W. was admitted to the ER, the designated pediatric surgeon from Kapiolani Medical Specialists—Dr. Devin Puapong—was called to Tripler by then-resident physician, Dr. Margaret Gallagher (née Clark). *See* ECF No. 420-1 at PageID.7415. Tripler staff had notified the anesthesia department of D.G.W.'s status at 6:35 p.m., presumably to prepare for surgery. *See* Exh. J-1 at USA000062. Dr. Puapong participated in evaluating D.G.W. when she was under care of the ER, but he decided not to perform surgery at that time. *The circumstances involved in that decision not to perform surgery were also major themes at trial.*

After Dr. Puapong left Tripler, D.G.W. remained at the Tripler PICU throughout the night of September 22nd and into the early-morning of September 23rd under the primary care of the Tripler PICU's attending physician, pediatric

intensivist Dr. Christopher Naun, who had been part of the team examining D.G.W. while in the ER. Dr. Naun is a civilian employee of Tripler. D.G.W. was transferred from Tripler to Kapiolani Medical Center for Women and Children ("KMCWC") mid-morning on September 23rd. According to Dr. Naun, D.G.W. was transferred to KMCWC ostensibly for dialysis (treatment unavailable at Tripler) as her kidneys were failing. *See, e.g.*, Tr. V.5-196, Tr. V.6-39 to 40. After her arrival at KMCWC, Dr. Puapong—the same surgeon who had decided not to perform surgery at Tripler the day before—performed emergency exploratory surgery at D.G.W.'s bedside in KMCWC's PICU at about 12:30 p.m. (approximately 19 hours after she had first arrived at Tripler). *E.g.*, Tr. V.1-164; Tr. V.5-39 to 40; ECF No. 395 at PageID.7158. A "[m]alrotation with partial midgut volvulus" was discovered and surgically treated with a Ladd's procedure and silo placement. *E.g.*, Exh. J-13 at 1; Tr. V.1-108. *Much of the trial concerned D.G.W.'s condition throughout the night and early-morning while at Tripler, and the actions or omissions of Dr. Naun and other physicians before her transfer to KMCWC on September 23, 2016.*

Following several additional surgeries, primarily by Dr. Puapong, at KMCWC through November of 2016, D.G.W. lost 70 to 95 percent of her small intestinal tract after resections of necrotic tissue. Exh. J-13. She also lost her ileocecal valve, the loss of which interferes with absorption of nutrients and has

other side effects. Tr. V.1-191. At age three months, her small intestines measured only five inches compared to about eight feet for a normal three-month old (although none of her large intestine was removed). Tr. V.2-142 to 143. She will likely forever have short or ultrashort bowel syndrome, and she has had parenteral nutrition supplied through a Broviac catheter and uses a gastrostomy tube to supplement her eating.[8] Tr. V.2-145. Six years later, she is still dependent or partially dependent on such nutrition. She experienced infections (sepsis) and other complications related to her catheter, resulting in brain and heart damage. In early-2018, D.G.W. and her family moved from Hawaii to Indiana after her father medically retired from service with the U.S. Army. They chose Indiana partly to be near the Ann and Robert H. Lurie Children's Hospital in Chicago, Illinois, which has experts and specialists in pediatric gastroenterology, intestinal rehabilitation, and other necessary fields. Later, she was prescribed an expensive (at least currently) drug, commercially known as Gattex (teduglutide)—which was approved for use by children in 2019—to assist in absorption of nutrition. From 2018 until 2022, D.G.W. has undergone numerous medical procedures and follow-

[8] Parenteral nutrition is administered directly into a vein, *see, e.g.*, Tr. V.1-197, in contrast to enteral feeding which goes through the intestinal tract through a gastrostomy tube or eating by mouth. *See* Tr. V.2-159.

up examinations and consultations, the evidence of which was undisputed and submitted by stipulation. *See* ECF No. 395 at PageID.7162−7177.

And so, the trial also focused on D.G.W.'s and her family's daily life and attendant medical and other future costs related to her condition.[9] Considerable evidence concerned whether D.G.W. would need Gattex and parenteral nutrition for her entire lifetime, and whether or to what extent she would require skilled nursing at home. That is, *much of the trial revolved around a potential award of damages that were legally caused by the alleged negligence under Hawaii law, applicable against the United States through the FTCA.*

## III. PROCEDURAL BACKGROUND

On May 6, 2019—based on D.G.W.'s treatment at Tripler on Sept. 22−23, 2016, and subsequent events resulting from that treatment—Plaintiffs filed this lawsuit against the United States under the FTCA, which allows civil actions against the United States for damages for personal injury caused by certain negligent or wrongful acts or omissions of federal employees acting within the scope of their office or employment. 28 U.S.C. § 1346(b).[10] The lawsuit also

[9] Plaintiffs are not seeking recovery for past medical expenses. *See, e.g.*, Tr. V.9-38; ECF No. 397 at PageID.7202; ECF No. 441 at PageID.9444. Rather, the court's focus with special damages for medical care is on future expenses that are proximately or legally caused by the alleged tortious conduct.

[10] Hawaii law applies because, under 28 U.S.C. § 1346(b)(1), federal courts apply the substantive "law of the place where the act or omission occurred." *See, e.g.*, *Takemoto v. United*

(continued . . .)

named Kapiolani Medical Specialists, Hawaii Pacific Health, Hawaii Pacific Heath Partners, Inc., and Dr. Devin Puapong (collectively, "the Kapiolani Defendants") as Defendants, alleging that they were acting with "actual or apparent agency with Defendant [United States] and/or as its borrowed employees." ECF No. 2 at PageID.5. The court had supplemental jurisdiction over the Kapiolani Defendants under 28 U.S.C. § 1367(a) (providing in part that "supplemental jurisdiction shall include claims that involve the joinder or intervention of additional parties"). *See id.* at PageID.6; ECF No. 104 at PageID.484–85.

The Complaint alleged counts for (1) medical negligence, (2) negligent infliction of emotional distress ("NIED"), (3) loss of consortium, (4) "economic losses," and (5) lack of informed consent. ECF No. 2 at PageID.6–19. Plaintiffs filed a First Amended Complaint on March 6, 2020, ECF No. 52, followed by a Second Amended Complaint on August 18, 2020, ECF No. 104, asserting the same five causes of action. No crossclaims or third-party claims were brought by or between Defendants.

On March 10, 2021, the court issued an Order granting in part and denying in part a Motion for Partial Summary Judgment brought by the Kapiolani Defendants. *See* ECF No. 220 (also available at *Warren v. United States*, 524 F.

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(. . . continued)
*States*, 2020 WL 7698829, at *4 (D. Haw. Oct. 20, 2020) (applying Hawaii law in medical malpractice action alleging negligence against a Tripler doctor under the FTCA).

Supp. 3d 1068 (D. Haw. 2021)). Specifically, the court: (1) dismissed Hawaii Pacific Health and Hawaii Pacific Health Partners, Inc., as Defendants; (2) dismissed Plaintiffs' "economic losses" claim; (3) dismissed Plaintiffs' informed consent claim; and (4) dismissed the sibling Plaintiffs' (i.e., A.J.W., J.D.W. III, and A.A.W.'s) loss of consortium claims. The court, however, denied the Kapiolani Defendants' Motion for Partial Summary Judgment as to Plaintiffs' NIED claim. *Id.* at PageID.2967. And so, claims for negligence, loss of consortium (on behalf of D.G.W. and her parents), and NIED remained against Kapiolani Medical Specialists and Dr. Puapong, as well as against the United States.

On May 18, 2021, the court issued an Order on a motion by the remaining Kapiolani Defendants (i.e., Kapiolani Medical Services and Dr. Puapong) regarding a proffered expert witness for the United States, Dr. Thomas Wiswell. *See* ECF No. 244 (also available at *Warren v. United States*, 2021 WL 1990644 (D. Haw. May 18, 2021), *reconsideration denied*, 2021 WL 6500155 (D. Haw. June 7, 2012)). The remaining Kapiolani Defendants primarily sought to preclude Dr. Wiswell (a neonatologist) from opining as to the standard of care applicable to Dr. Puapong (a pediatric surgeon). The court denied that motion, thereby allowing Dr. Wiswell to opine as to the standard of care as to the diagnosis, recognition, and treatment of D.G.W.'s midgut volvulus. *See id*. at

PageID.3623. The court, however, noted that its conclusion might have been different if Dr. Wiswell were opining on specific surgical procedures. *See id.* at PageID.3620 n.4. But Dr. Wiswell was not rendering opinions on the manner of Dr. Puapong's surgeries themselves. Indeed, Plaintiffs' negligence allegations in this lawsuit are not directed towards the specific performances of post-Tripler surgeries—and from what the court can tell from the record, the surgeries themselves appear to have been successful (although the evidence was not focused on their performance). Rather, Plaintiffs' claims are based on the alleged untimely *initiation* of the first (i.e., September 23, 2016) surgery, the possible reasons for its untimeliness such as a failure to perform a UGI series, and the consequences resulting from (or legally caused by) that untimely diagnosis and treatment.

On August 13, 2021, Plaintiffs and the remaining Kapiolani Defendants entered into a confidential settlement agreement. *See* ECF No. 280. Ruling on a motion, the court later found that the confidential settlement between Plaintiffs and the remaining Kapiolani Defendants was made in good faith under HRS § 663-15.5. *See* ECF No. 294 (Findings and Recommendation) and ECF No. 299 (Order adopting Findings and Recommendation). Under Hawaii law, a finding of a good faith settlement (1) discharges the settling parties from liability for contribution to other joint tortfeasors, (2) reduces a plaintiff's claims against joint tortfeasors by the amount stipulated to in the release or in the amount of the

consideration paid for it, whichever is greater, (3) bars other joint tortfeasors from further claims against the settling joint tortfeasors, except where there is a written indemnity agreement, and (4) results in dismissal of all crossclaims (if any) against the settling joint tortfeasors, except where there is a written indemnity agreement. *See* HRS § 663-15.5(a) & (d). Accordingly, the court dismissed Kapiolani Medical Specialists and Dr. Puapong as Defendants on December 20, 2021. *See* ECF No. 323. The only claims remaining were medical negligence, loss of consortium (on behalf of D.G.W. and her parents), and NIED, all against the United States only.

Before filing an action against the United States under the FTCA, a plaintiff must first present an administrative claim or claims against the appropriate federal agency, *see* 28 U.S.C. § 2675(a), which was done in this case. *See* ECF No. 307-2. Normally, a subsequent lawsuit "shall not be instituted for any sum in excess of the amount of the [administrative] claim." 28 U.S.C. § 2675(b). On February 8, 2022, however, the court issued an order granting a motion by Plaintiffs to raise the "damages cap" so that they could seek an award exceeding the amount of D.G.W.'s prior administrative claim. *See* ECF No. 332 (also available at *Warren v. United States*, 2022 WL 1441171 (D. Haw. Feb. 8, 2022)). The court found that Plaintiffs had "newly discovered evidence not reasonably discoverable at the time of presenting the claim . . . or . . . proof of intervening facts, relating to the amount of the claim," 28 U.S.C. § 2675(b), as necessary to

raise the cap under the statute. The court focused on the costs of Gattex, which had not been approved for use in children when D.G.W.'s administrative claim was made. Specifically, the court allowed Plaintiffs to seek damages that exceed $25 million, which was the amount of D.G.W.'s prior administrative claim.[11] *See* ECF No. 332 at PageID.5787; ECF No. 307-2 at PageID.5035.

The remaining claims proceeded to a non-jury trial against the United States from August 2−12, 2022. Plaintiffs' theory at trial focused exclusively on actions and omissions of the United States through Dr. Naun. They specifically did *not* seek to establish negligence against the United States for any acts or omissions of any resident physicians or other Tripler personnel who may have participated in treatment of D.G.W.[12] *See* Tr. V.1-11 to 12. Although Plaintiffs did not present a case of liability against anyone else besides Dr. Naun, much evidence at trial concerned acts or omissions of Dr. Puapong because the United States largely relied on an "empty chair" defense—a theory that Dr. Naun was not liable for acts or omissions of Dr. Puapong. That is, the United States' defense

[11] Laura Warren, individually, had submitted an administrative claim of $5 million. *See* ECF No. 307-2 at PageID.5040.

[12] The differences between the roles of resident physicians and their attending physicians are generally well known, but to the extent a factual finding is necessary, several witnesses testified to some of those differences. Although residents are licensed doctors providing patient care, they are doctors in training (whatever their level of residency). *See, e.g.*, Tr. V.1-99 ("The job of a resident is to learn, to do physical examinations, and discuss it with their attending so that can learn from their experience."); Tr. V.3-8 (similar); Tr. V.4-156; Tr. V.6-44; Tr. V.6-183; Tr. V.7-166.

was essentially that Dr. Naun met applicable standards of care, but if negligence occurred, it was wholly or partly the result of Dr. Puapong's acts or omissions. But, because Kapiolani Medical Specialists and Dr. Puapong had previously settled and had been dismissed, they did not present a defense or make an appearance as Defendants at trial. Accordingly, the court's Findings and Conclusions are directed at assessing the United States' liability through the acts or omissions of Dr. Naun.

## IV. FINDINGS AND CONCLUSIONS

Each section to follow describes a general Finding or Conclusion, followed by an explanation based on the trial evidence and testimony. The court need not make precise findings on a minute-by-minute, or medical record-by medical record basis; many of those details either (1) are uncontested, with the record speaking for itself, or (2) if subject to dispute, are not relevant or necessary to the court's ultimate Findings or Conclusions. As noted earlier, the court usually cites to the record for reference, but where facts are obvious or uncontested, the court sometimes omits such references. For some of the minute details, it is not realistic for the court to specify them precisely—and stating those as "fact" would be misleading. Nevertheless, the court makes Findings on all relevant points as necessary to support and justify its Conclusions and ultimate determination of amounts of damages. The court as factfinder makes its Findings by a

preponderance of the evidence, based on the evidence admitted at trial and the credibility of witnesses (including their demeanor, memory, possible bias, and manner of testifying), and such reasonable inferences from the evidence as are justified in light of experience and common sense. *See, e.g.*, *Fauber v. Davis*, 43 F.4th 987, 998 (9th Cir. 2022); *Grotemeyer v. Hickman*, 393 F.3d 871, 879 (9th Cir. 2004). The parties know the issues and evidence in question, and thus will understand the decision and explanation even if a casual reader might not fully comprehend the issues without reviewing the trial evidence and testimony.

**A. The Court Finds the United States Liable**

Plaintiffs' and Defendant's experts agreed that suspected volvulus in an infant requires immediate action; it is potentially life threatening and its diagnosis is a surgical emergency. *E.g.*, Tr. V.1-38; Tr. V.7-34. In retrospect, with the benefit of 20/20 hindsight, the surgery that Dr. Puapong performed on D.G.W. at about 12:30 in the afternoon of September 23, 2016, at KMCWC should have been done much earlier, while she was at Tripler the day before (either sometime the evening of September 22nd or in the very early-morning of September 23rd). *See, e.g.*, Tr. V.7-37 to 38. But the question now before the court is not whether the failure to operate earlier was a mistake. Rather, the precise question is whether

the failure to perform timely surgery was wholly or partly the result of negligence by the United States by Dr. Naun.[13]

It is undisputed that Dr. Naun was not a pediatric surgeon and was not qualified or able to perform exploratory surgery on D.G.W. It was Dr. Puapong's ultimate decision—although with input from others—not to perform surgery on September 22, 2016. *See, e.g.*, ECF No. 420-1 at PageID.7416. The testifying experts agreed that the decision to operate or not to operate was Dr. Puapong's. Tr. V.1-154; Tr. V.7-41. As Dr. Puapong himself stated in his deposition testimony, he "was the surgical consultant and responsible for surgical decision making." ECF No. 379-1 at PageID.6724. Dr. Naun could not have ordered Dr. Puapong to operate, and Dr. Naun did not fall below the applicable standard of care by failing to call for a different pediatric surgeon who was not on duty the evening of September 22, 2016 (or later).

The imaging tests that were actually done (ultrasound, X-Ray, CT scan) while D.G.W. was under care of the emergency department were not definitive. The radiologist's impression on the X-Ray was "[m]arked gaseous bowel distention, suggesting obstructive process." Exh. J-1 at USA000119. The impression on the ultrasound was: "[b]owel wall thickening and increased luminal

[13] Plaintiffs' primary expert witness in pediatric critical care, Dr. Maggi, was quick to praise the ER physician, Dr. Fitch, for "[doing] the correct thing," and "[doing] a very good job in the emergency room." Tr. V.1-53, 61.

diameter. This is concerning for intestinal obstruction." *Id.* at USA000121. And the CT scan with IV contrast that was performed after D.G.W. was taken to the Tripler radiology department showed, among other things as to her abdomen, "marked distention of the small bowel, measuring up to 2.6 cm." *Id.* at USA000116. Among other findings, the radiologist concluded:

> Gaseous distention of small bowel within the distal stool and air seen in the rectum suggesting partial small bowel obstruction. Given the history of resuscitation this may also be a result of bowel ischemia secondary to cardiac arrest.

*Id.* at USA000116−117.

These tests did not rule in or rule out volvulus. *See, e.g.*, Tr. V.3-18, 22; Tr. V.4-160, 162, 164; Tr. V.7-132, 160. Volvulus remained high on D.G.W.'s differential diagnosis, even after she was admitted to the Tripler PICU and after Dr. Puapong's initial decision not to perform surgery at around 7:30 p.m. on September 22, 2016. Tr. V.1-71; Tr. V.6-101; ECF No. 395 at PageID.7155. A UGI series—the best radiologic test to help to confirm or rule out volvulus—remained possible, even if doctors believed it would have been difficult or dangerous to perform it at around 7:30 p.m. on September 22, 2016.[14] Like Dr.

[14] Dr. Eric Royston, the resident radiologist on duty that evening, agreed that a further test "done under fluoroscopy" was available. Tr. V.4-167. He testified that, when various physicians were meeting while D.G.W. was in radiology, he "offered as another alternative[,] fluoroscopy as a possible choice of action" to surgical resident Dr. Gallagher. Tr. V.4-169. He was not, however, managing D.G.W.'s overall condition.

Puapong's surgical decision, given 20/20 hindsight, the failure to perform a UGI series at that time (around 7:30 p.m. on September 22nd) was likely a mistake.[15] The test very likely would have indicated the presence of volvulus. *See, e.g.*, Tr. V.3-23 to 24 (credible testimony of Dr. Goodarzian). But, again, whether or not that failure was a mistake is not the relevant question here. Rather, for present purposes, the precise question is whether the failure to perform the UGI series at that time was negligence on the part of the United States.

The court is not convinced by Dr. Puapong's deposition testimony that "after discussing with everybody, we felt that [D.G.W.] did not have a surgical problem of which a midgut volvulus would be included," ECF No. 379-1 at PageID.6718, and that "a midgut volvulus was not likely," *id.* at PageID.6719. But ultimately, the purpose of a UGI series would have been to assist Dr. Puapong in assessing whether immediate surgery was required. Dr. Puapong felt that he

[15] There was some factual dispute about how easily a UGI series could have been done on D.G.W. at approximately 7:30 p.m. on September 22, 2016. Dr. Naun testified that it was dangerous at that time, given her intubation, her hypothermic temperature, and her critical condition after having coded earlier. Tr. V.5-204, 206. Because she was able to undergo a CT scan in radiology, experts testified that she could have tolerated a UGI series at that time. Tr. V.1-68; Tr. V.3-25, 61 to 62; Tr. V.7-140, 146. However, according to Plaintiffs' pediatric radiology expert witness, Dr. Fariba Goodarzian, a UGI series should not be done by a resident and would require an attending radiologist physician, at least at her hospital. Tr. V.3-55. Nevertheless, an attending radiologist at Tripler could have been called, and even if it was risky at approximately 7:30 p.m. on September 22, 2016, at some point later, the potential benefits of such a test would likely have outweighed the risks as D.G.W. stabilized relative to her prior code. There was also credible testimony from experts from both sides that the need for exploratory surgery at that time was apparent even without the results of a UGI series. *See, e.g.*, Tr. V.1-75, Tr. V.7-37, 146.

already had all the information he needed without a UGI series, and he had ruled out surgery. Tr. V.5-207 to 208. Dr. Naun did not fall below the applicable standard of care by failing to insist on a UGI series before approximately 7:30 p.m. on September 22, 2016. In other words, the failure to have a UGI series performed on D.G.W. at that time was not negligence on the part of the United States.

Dr. Puapong left Tripler after D.G.W. was officially transferred from the Tripler emergency department to its PICU at approximately 7:55 p.m. on September 22, 2016. Here (from about 8:00 p.m. to the following morning before D.G.W.'s transfer to KMCWC) is where the evidence indicates negligence, at least in part, by the United States that was a substantial factor in causing foreseeable damages to Plaintiffs. Primarily, the negligence is perhaps best described as a failure of clear lines of communication by and between Dr. Puapong and Tripler doctors. Although surgery or a UGI series did not occur before 8:00 p.m., either or both could have occurred later, and there appears to have been no urgency to re-assess those decisions (made prior to 8:00 p.m.) later in the evening of September 22nd or into the early morning on the 23rd—perhaps after it became clearer that D.G.W. had stabilized at least relative to her prior code in the ER. *See, e.g.*, Tr. V.5-208. Indeed, Dr. Naun did not need a surgeon to order a UGI series after 8:00 p.m., and his failure to do so at some point thereafter was part of the negligence. Tr. V.3-65; Tr. V.1-110 to 111.

Throughout the night of September 22nd and early morning of the 23rd—with volvulus remaining on D.G.W.'s differential diagnosis—D.G.W.'s condition worsened. She developed or continued to have several indications consistent with volvulus (or abdominal compartment syndrome, likely resulting from volvulus), which would require a pediatric surgeon. Dr. Maggi described abdominal compartment syndrome as "increased pressures in the abdomen that are severe enough to alter the profusion of the main organs of the abdomen, including the kidneys." Tr. V.1-88. It is life threatening because it can affect the heart and lungs, and produce renal (kidney) and hepatic (liver) failure. *Id.* at V.1-88 to 89. It is a surgical emergency. *Id.* at 91.

During the night and into the morning, vasopressors—dopamine, epinephrine, and norepinephrine—became necessary to maintain D.G.W.'s blood pressure. Values for hemoglobin (4.8 g/dL, where a normal range is 11.7 to 15.7) and hematocrit (14%, where a normal range is 35.1 to 47.1 %) dropped to abnormally low levels despite a blood transfusion, signaling ongoing blood loss in the small intestine. Tr. V.1-80 to 81. Lactate levels became markedly elevated (13.1 or up to 17 mmol/L, where a measurement above 2.5 is considered markedly abnormal), consistent with ongoing tissue damage or necrosis and metabolic acidosis. Tr. V.1-84 to 86. Her potassium levels were rising and measured critically high at 7.0 mmol/L (where a normal range is 3.3−5.1). She lacked urine

output despite receiving ample fluids, indicating renal failure, probably caused by abdominal compartment syndrome according to Dr. Maggi. Tr. V.1-87. Surgical resident Dr. Alexander Malloy documented that D.G.W. was "writhing" in pain during an abdominal exam, although he described her abdomen as "still soft." Exh. J-1 at USA000225. There was some evidence "concerning for necrotic bowel." Exh. J-1 at USA000112. Much evidence indicated that D.G.W.'s belly was tense, tender, distended, taut, and/or tympanitic or hypertympanic. *E.g.*, Tr. V.1-96 to 98, 112; Tr. V.6-128; Exh. J-1 at USA000204, USA000209, USA000254, USA000257; Exh. J-8 at TAMC014, TAMC020; ECF No. 420-1 at PageID.7416.

But the record indicates a lack of clear directions on specifics of communications with Dr. Puapong after he left Tripler, such as how often or under what exact circumstances he was to be contacted. *See, e.g.*, Tr. V.7-30;[16] Tr. V.1-

[16] Defense expert, Dr. Wiswell, testified credibly as follows:

> From the surgery side of things, there was no written plan of care. There was no -- nothing spelled out as to how frequently the residents were supposed to assess the child, and the kinds of things that they should look for that would be consistent with her deteriorating and needing surgery. And these, of course, were general -- very inexperienced general surgery residents that had never taken care of a child with the kind of problems that [D.G.W.] had and they were supposed to be reporting to Dr. Puapong and updating him.

Tr. V.7-30.

75 to 76.[17] Neither Dr. Puapong's residents nor Dr. Naun had sufficient directions or procedures in place. The evidence establishes that D.G.W. was critically ill when admitted to the Tripler PICU at about 7:55 p.m., with surgical intervention possible. And so, one would expect clear directions on what exactly to look for, when to call, who should call, and, for his part, periodic inquiry from Dr. Puapong.[18] This is especially so where: (1) Dr. Puapong "was afraid [D.G.W.] would die on the table if he performed surgery" at that time (before 8:00 p.m. on September 22nd), according to credible testimony from Dr. Naun, D.G.W.'s parents, and others, Tr. V.7-39; and (2) Dr. Puapong thought D.G.W. might have had an "intermittent volvulus," according to Dr. Naun's recollection at trial, Tr. V.6-17, 72. In this case, after 8:00 p.m. on September 22, 2016, it fell below a standard of care essentially to bifurcate D.G.W.'s care between the "PICU side" (responsible for medical resuscitation, stabilization, and monitoring) and the "surgical side" (responsible for surgical decision-making). *See, e.g.*, Tr. V.7-29; Tr. V.1-113.

[17] When asked "[h]ow important is direct communication between a pediatric surgeon and a pediatric intensivist when volvulus is suspected?" Dr. Maggi answered: "In terms of providing care to the patient [it] is critical, the communication between two experienced doctors in avoiding [or] bypassing the residents." Tr. V.1-75 to 76.

[18] There is no evidence that Dr. Puapong initiated any calls to any of the Tripler surgical residents overnight to check on D.G.W. *See* Tr. V.1-170.

Dr. Naun testified that it was the role of Tripler's on-duty surgical residents to have communicated with Dr. Puapong, who was their attending surgeon. Tr. V.6-89. Dr. Puapong testified similarly during his deposition, ECF No. 379-1 at PageID.6714, although he said he would have returned to Tripler if someone had asked him to reevaluate D.G.W., ECF No. 370 at PageID.6248. But even if the surgical residents had a role in examining and documenting D.G.W.'s condition throughout the night and in updating Dr. Puapong, this does not mean that Dr. Naun had no such role. As Dr. Maggi credibly testified, when volvulus is suspected, direct communication between a pediatric surgeon and a pediatric intensivist is critical. Tr. V.1-75 to 76. Reliance solely on the surgical resident physicians—who had no experience with volvulus in infants—for communication regarding surgical decision-making in this situation was negligent, where D.G.W. was critically ill and volvulus remained on her differential diagnosis.[19] As Dr. Maggi testified, in this case "the pediatric attending and the pediatric surgeon should be following the patient serially in coming up with a decision." Tr. V.1-99. According to him, in this situation, the standard of care is "direct communication

[19] *See* Tr. V.8-8 to 9 (testimony of Dr. Jillian Findlay (née Piaggione) that as a junior surgical resident in September 2016, she had never diagnosed or treated volvulus or abdominal compartment syndrome in a pediatric patient, and had no expertise in the subspecialty of pediatric surgery); Tr. V.6-187 (testimony of Dr. Malloy that as a senior surgical resident in September 2016 he had no specific expertise in the subspecialty of pediatric surgery, had never treated a patient with midgut volvulus, had never performed a laparotomy on a one-month-old baby, and—although he knew about volvulus from textbooks—had never treated a patient with a volvulus in a clinical setting).

between attending [physician] and attending [physician] as of the progression of [D.G.W.] and the worsening of the clinical symptoms of the child," Tr. V.1-112, especially where Dr. Puapong had left the Tripler premises. Although Dr. Naun spoke with Dr. Puapong at approximately 5:00 a.m. on September 23, 2016, whatever their exact conversation, Dr. Puapong did not return to Tripler to perform surgery. Tr. V.6-50.

For his part, Dr. Puapong testified at his July 2020 deposition that he has no memory of being told D.G.W.'s vital signs or lab results after he left Tripler. *See* ECF No. 379-1 at PageID.6726. Indeed, he doesn't recall "getting any phone calls or communications through the night," ECF No. 370 at PageID.6246, and doesn't "recall any communications through the night with regard to [D.G.W.] or her condition." *Id.* at PageID.6248. He doesn't recall "anybody ever mentioning any concern for abdominal compartment syndrome." ECF No. 379-1 at PageID.6717.[20] Surgical resident Dr. Malloy, however, testified that he conducted examinations at 10:30 p.m. on September 22nd and at 4:47 a.m. on September 23rd which "[did] not portend an indication for surgery," ECF No. 417-1 at PageID.7385, and that he communicated directly with Dr. Puapong after each examination, *id.* Senior surgical resident, Dr. Gallagher, recalls speaking

[20] Of course, that Dr. Puapong in 2020 did not recall conversations does not mean they did not occur in 2016.

with Dr. Puapong by telephone after an abdominal examination by her at about 5:30 or 6:00 a.m. on September 23rd when she began her morning shift, indicating a "tense, firm, tender abdomen with discoloration," which "had changed from the night prior." ECF No. 420-1 at PageID.7416; Tr. V.7-196 to 197. She recalls Dr. Puapong telling her that "he knew [D.G.W] was being transferred to [KMCWC] that morning and he would examine her on arrival," ECF No. 420-1 at PageID.7417.

In this regard, the record contains no written documentation or notes (whether formal on D.G.W.'s chart at Tripler, or informally otherwise) from Dr. Puapong, and no written oversight by him of the clinical notes written by his surgical residents at Tripler after 8:00 p.m. on September 22nd.[21] According to Dr. Wiswell's credible testimony, such a failure is a breach of the standard of care, and

[21] Clinical notes dated 8:25 p.m. on September 22, 2016, from Tripler surgical resident Dr. Gallagher—who was part of an initial team from around 6:30 to 7:55 p.m. on September 22nd (as well as beginning as early as 5:15 a.m. when she began her morning shift on September 23rd)—state "I have discussed the patient with my supervising Staff/Attending [Dr. Puapong]." Exh. J-1 at USA000235; Tr. V.7-196. Clinical notes from Tripler surgical residents Drs. Malloy and Findlay from 11:14 p.m. on September 22nd, and 2:13 a.m. and 4:56 a.m. on September 23rd, all state "Staff attending PUAPONG, DEVIN M.D. is fully aware and concurs with the treatment plan." Exh. J-1 at USA000222, USA000224 to 000225.

Somewhat in contrast, Dr. Naun testified that it is a responsibility of an attending physician (at least in his role as the staff attending pediatric intensive care physician) to review and edit clinical notes of his resident physicians. Tr. V.6-44. In this regard, the court draws no deceitful intent—as argued by Plaintiffs—from the degree that Dr. Naun edited or revised Tripler PICU resident Dr. Rey Agatep's clinicial notes from September 22nd and 23rd. *See, e.g.*, Exh. J-1 at USA000202; Exh. J-8 at TAMC020. The court has considered all the evidence, both from Dr. Agetap's unedited note and Dr. Naun's revised or explanatory version, recognizing the role of resident physicians and their supervision by attending physicians.

Dr. Maggi was likewise critical of the failure. Tr. V.7-31; Tr. V.1-100. A lack of notes—from Dr. Puapong, the residents, or Dr. Naun—specifically regarding any conversations by or with Dr. Puapong has hampered the court's assessment of exactly what happened on September 22−23, 2016. Regardless, Dr. Puapong did not receive all the relevant information regarding D.G.W.'s condition throughout the night. Some of the information the surgical residents stated that they relayed to Dr. Puapong was (according to expert witnesses from both sides) either misleading, incomplete, or wrong. Tr. V.1-97 to 98; Tr. V.7-167.[22]

And so, the court finds negligence on the part of the United States through Dr. Naun (although the negligence was not his alone). That is, Plaintiffs have proven by a preponderance of the evidence that the United States breached a duty owed to Plaintiff D.G.W. (for medical negligence and NIED claims) and to Laura Warren (for an NIED claim), causing injury and damages.[23] They have done

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[22] Dr. Maggi testified about an inexperienced resident's clinical note: "He says that the patient is still critically ill. He describes that bicarbonate still remain low, meaning severe metabolic acidosis. He describes that he had given blood. He -- he blames the anemia on a dilutional problem. And then he says that the aneuria is concerning and may require renal replacement therapy. To me that means that he completely, completely was oblivious to the fact that there was a compartmental syndrome." Tr. V.1-97. Dr. Wiswell agreed that a resident's documentation that "[D.G.W.'s] abdomen was still soft, and thus, abdominal compartment syndrome was not [of] high a concern but will monitor" was "flat out wrong." Tr. V.7-167.

[23] It goes without saying that there was "physical injury" for purposes of an NIED claim. *See, e.g.*, *Pantastico v. Dep't of Educ.*, 406 F. Supp. 3d 865, 881 (D. Haw. 2019) ("The general rule in Hawai'i is thus 'that an NIED claimant must establish, incident to his or her burden of proving actual injury. . . that *someone* was physically injured by the defendant's conduct, be it

(continued . . .)

so based on expert medical testimony to a reasonable degree of medical probability. *See, e.g.*, *Est. of Frey v. Mastroianni*, 146 Haw. 540, 557, 463 P.3d 1197, 1214 (2020) (reiterating that in a medical negligence claim, the plaintiff has the burden to establish a duty owed to the plaintiff, a breach of that duty, and a causal relationship between the breach and the alleged injury, and that causation must be established by expert medical testimony) (citing *Barbee v. Queen's Med. Cntr.*, 119 Haw. 136, 158, 194 P.3d 1098, 1120 (Ct. App. 2008)); *Craft v. Peebles*, 78 Haw. 287, 298, 893 P.2d 138, 149 (1995) ("[T]he question of negligence must be decided by reference to relevant medical standards of care for which the plaintiff carries the burden of proving through expert medical testimony."); *Bernard v. Char*, 79 Haw. 371, 377, 903 P.2d 676, 682 (Ct. App.), *aff'd*, 79 Haw. 362, 903 P.2d 667 (1995). The breach of duty was a substantial factor in causing damages to Plaintiffs, as discussed to follow. *See Mastroianni*, 146 Haw. at 550, 463 P.3d at 1207; *Mitchell v. Branch*, 45 Haw. 128, 131, 363 P.2d 969, 973 (1961) (adopting the "substantial factor" test of proximate or legal causation); Tr. V.1-116.[24] As Dr. Maggi testified, if surgery had occurred earlier, D.G.W. would likely

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(. . . continued)
the plaintiff himself or herself or someone else.'") (quoting *Doe Parents No. 1 v. State, Dep't of Educ.*, 100 Haw. 34, 69−70, 58 P.3d 545, 580 (2002)).

[24] Defendant is also liable for loss of consortium. Loss of consortium claims are derivative in that they are based on the underlying claim of a spouse or child who has suffered injury. *See Brown v. KFC Nat'l Mgmt. Co.*, 82 Haw. 226, 241, 921 P.2d 146, 161 (1996)).
(continued . . .)

have had minimal bowel loss. *See* Tr. V.1-116. Dr. Wiswell agreed that if D.G.W. had undergone surgery on September 22nd, it would have saved the vast majority of her small intestine. Tr. V.7-177. That is, the preponderance of the credible evidence establishes that if surgery had occurred earlier, her prognosis would have been completely different.

At all relevant times, Dr. Naun was working within the course and scope of his employment with the United States at Tripler. ECF No. 395 at PageID.7177. The claims by Plaintiffs against the United States under the FTCA are "the 'exclusive' remedy for injuries resulting from malpractice committed by medical personnel of the armed forces." *Levin v. United States*, 568 U.S. 503, 508 (2013) (citing 10 U.S.C. § 1089(a)).

**B. There Is No Contributory or Comparative Negligence**

The United States asserts that D.G.W.'s parents are contributorily or comparatively liable for her injuries under HRS § 663-31 because, it argues, they delayed seeking or calling for emergency treatment for three hours on September 22, 2016. *See* ECF No. 440 at PageID.9252. It argues that such delay in seeking treatment "significantly increased the risks associated with performing exploratory surgery and likely contributed to [D.G.W.'s] respiratory and cardiac arrest on

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(. . . continued)
However, they are claims "for damages independent and separate from the [child's] claim for damages." *Id.* (citation omitted).

September 22, 2016." *Id.* at PageID.9253. This is an affirmative defense for which the United States bears the burden of proof. *See, e.g.*, *Mamea v. United States*, 781 F. Supp. 2d 1025, 1050 (D. Haw. 2011) (citing *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)).

This affirmative defense fails.[25] The United States has not met its burden. Initially, there was no medical evidence, e.g., expert testimony or medical records (or, for that matter, any other evidence) supporting the United States'

[25] Plaintiffs argue that "Defendant is legally barred from pursuing a defense based on a claim of comparative negligence." ECF No. 441 at PageID.9442. Plaintiffs invoke "[t]he majority rule from jurisdictions outside Hawaii . . . that the tortfeasor in a medical malpractice action takes the plaintiff as he finds her, and any issue of a plaintiff's comparative fault should not be presented to the fact finder when the plaintiff's allegedly negligent conduct occurred before the allegedly negligent care." *Id.* (citing *Harb v. City of Bakersield*, 183 Cal. Rptr. 3d 59, 80 (Cal. App. 2015) (other citation omitted). Although Hawaii has recognized a "thin skull" doctrine in tort actions, *see Montalvo v. Lapez*, 77 Haw. 282, 299 n.16, 884 P.2d 345, 362 n.16 (1994), Plaintiffs have not cited and the court has not found a Hawaii opinion squarely addressing whether, or in what circumstances, comparative negligence is barred in medical malpractice actions.

Moreover, this "majority rule" is complicated—dependent on a number of variables and an analysis beyond the scope of this case—and, even if it were applicable in Hawaii, it is unclear whether it would apply under the facts of this case. For example, Defendant is not arguing that D.G.W. (or her parents) caused or contributed to the volvulus condition itself—akin to the facts in *Harb*, where the defendant's argument was that if not for plaintiff's failure to take his high blood pressure medication, the incident involving the medical malpractice would not have arisen. *See Harb*, 183 Cal. Rptr. 3d at 82. Further, it is unclear whether Defendant's theory of comparative negligence is based on behavior by D.G.W.'s parents that was "concurrent" or "contemporaneous" with the alleged negligence of Defendant—a theory of comparative negligence that would apparently still be allowed under the "majority" rule discussed in *Harb*. *See id.* at 74 ("In contrast, most courts have held that the concept of contributory negligence can be applied to a patient's conduct that is concurrent or contemporaneous with the physician's negligence."). But because there was no comparative or contributory negligence under the facts of this case, the court need not reach the legal question of whether Hawaii law would necessarily bar such a defense at all.

argument that any purported delay in seeking treatment contributed to D.G.W.'s condition when she was admitted to the Tripler ER. More importantly, there is no evidence (expert, medical, or otherwise) that a delay in seeking treatment for D.G.W. contributed to a failed or delayed diagnosis of volvulus. No evidence suggests that if D.G.W.'s parents had brought her to the Tripler ER earlier, then Dr. Puapong would have performed exploratory surgery on September 22nd when he first examined D.G.W. There is no evidence that any actions or inactions of D.G.W.'s parents contributed to or caused a failure of physicians to perform a UGI series. Indeed, the only medical evidence (in the form of testimony from Dr. Maggi) regarding D.G.W.'s parents' behavior before arriving at Tripler rejects the idea that they—medically-uneducated laypersons—should have known that D.G.W. had an undiagnosed volvulus based on symptoms of abdominal distension and fussiness. *See* Tr. V.1-127 ("I do think that in order to make a diagnosis of a volvulus, and in order to put the abdominal distension and the fussiness together with a catastrophic abdominal event in a one-month-old requires some degree of medical expertise . . . .").

In any event, the credible evidence establishes that when D.G.W.'s fussiness developed around 3:00 p.m. on September 22nd, her parents called a nurse's hotline and were told to go to acute care at Schofield Barracks (a location in central Oahu, away from Tripler). Tr. V.2-22. When they noticed that D.G.W.

was "pale from the belly button up and purplish from the belly button down," they instead decided to take her to Tripler. Tr. V.2-23. There is no indication that not calling 911 at that point caused or contributed to D.G.W.'s condition or to any negligence that occurred thereafter. That is, there was no unreasonable delay by D.G.W.'s parents in seeking treatment and thus no contributory or comparative negligence.

### C. Joint and Several Liability under HRS §§ 663-10.9 and 663-15.5: The United States' Degree of Negligence for Purposes of Noneconomic Damages Under § 663-10.9(3) Is Twenty-Five Percent

As explained earlier, the court does not make findings as to liability on the part of Dr. Puapong or Kapiolani Medical Specialists because the trial was limited to the remaining claims against the United States, and Plaintiffs' theory was directed solely at actions or omissions of Dr. Naun. Nevertheless, the court is mindful of HRS § 663-10.9 regarding joint and several liability among joint tortfeasors. In relevant part, the statute provides that, under Hawaii law, joint and several liability among joint tortfeasors is abolished except, among other situations, "[f]or the recovery of *economic* damages against joint tortfeasors in actions involving injury or death to persons." HRS § 663-10.9(1) (emphasis added). As for *non-economic* damages, the statute also allows joint and several liability "in actions . . . involving injury or death to persons against those tortfeasors whose individual degree of negligence is found to be twenty-five

percent or more under section 663-31." HRS § 663-10.9(3). The statute further explains that "[w]here a tortfeasor's degree of negligence is less than twenty-five per cent, then the amount recoverable against that tortfeasor for noneconomic damages shall be in direct proportion to the degree of negligence assigned." *Id.*

Because the court finds non-economic damages that were proximately or legally caused by the United States' negligence, it is necessary to make a finding or conclusion under HRS § 663-10.9(3) regarding the United States' degree of negligence. And in assessing negligence for the entire period prior to D.G.W.'s transfer to KMCWC on the morning of September 23, 2016—that is, including the decisions not to perform surgery or perform a UGI series at approximately 7:30 p.m. on September 22, 2016—the court finds the United States' degree of the negligence that was a substantial factor in causing foreseeable damages to D.G.W. and Laura Warren is twenty-five percent. This finding thus allows joint and several liability for general (non-economic) damages under HRS § 663-10.9(3).

As for economic damages, the court need not compute the ultimate effect of the good faith settlement between Plaintiffs, on the one hand, and Kapiolani Medical Specialists and Dr. Puapong, on the other (which was discussed earlier in the Background section). The operation of HRS § 663-15.5 is self-effecting, without the need here for judicial declaration. That is, the court here determines the amount of damages; it does not perform the mathematical

calculation in application of § 663-15.5 to account for the prior confidential good faith settlement between Plaintiffs, on the one hand, and Kapiolani Medical Specialists and Dr. Puapong, on the other. Nor does the court address—because it is not part of this lawsuit—the effect, if any, of any written indemnity agreement between the United States and Kapiolani Medical Specialists/Dr. Puapong. *See* HRS § 663-15.5(d).

### D. The Negligence Was a Substantial Factor in Causing Subsequent Injury—Heart and Brain Injury Associated with Foreseeable Complications of Parenteral Nutrition—with No Evidence of Superseding Causes

On July 19, 2022, the parties filed a Joint Statement of Undisputed Facts, ECF No. 395, which, among others, establishes facts regarding many of D.G.W.'s post-November 2016 surgeries and medical procedures, as well as details of her medical history in 2017 (while in Hawaii) and from 2018 until 2022 (while being treated at the Lurie Children's Hospital in Chicago, Illinois). The court does not repeat all the details of that Joint Statement here, but instead sets forth many of the key events to establish (along with *other* trial evidence) that those relevant events and complications were legally caused by the September 2016 negligence. These events generally are related to multiple infections of

D.G.W.'s Broviac catheter, at least some of which caused septic emboli and seizures, endocarditis (heart damage), and brain damage.[26]

First, trial evidence established some of the background principles: a Broviac catheter (sometimes called a "central line" in these FOFCOLs) is placed under the skin usually in the upper chest and tunneled into a blood vessel, and is used to provide intravenous parenteral nutrition. *E.g.*, Tr. V.1-204 (credible testimony of Dr. Melvin Heyman). Parenteral nutrition is concentrated nutrition including dextrose or glucose, protein, fat, minerals, vitamins, and trace elements. Tr. V.1-197 to 198. In contrast to a catheter, gastrostomy tubes are used for infusion of food or nutrition into the stomach. Tr. V.2-132. Risks of use of parenteral nutrition include catheter leakage, clotting or obstruction, and infection. Tr. V.1-200. There are also known risks or complications associated with the nutrients themselves. *Id.* Longer term complications include possible development of liver disease and blood clots. Infected blood clots can lead to septic emboli lodging in the lungs or brain and development of strokes. Tr. V.1-201. Similar risks are sometimes associated with gastrostomy tubes. Tr. V.2-134.

It is undisputed that, at relevant times, D.G.W. used a Broviac catheter and was reliant on parenteral nutrition with her short or ultrashort bowel

[26] Although Defendant does not dispute the subsequent surgeries, procedures, and medical history, it does not concede that they were all legally caused by the negligence that happened on September 22−23, 2016.

syndrome (although Defendant disputes whether Plaintiffs have proven that she will require such nutrition indefinitely). On October 18, 2016, a Broviac catheter line was installed into D.G.W.'s chest wall, but was removed by Dr. Puapong on January 3, 2017, after it became infected. ECF No. 395 at PageID.7159. On January 24, 2017, Dr. Puapong implanted a new Broviac catheter line in D.G.W.'s chest wall. *Id.* at PageID.7160.

Between May 20, 2017, and May 31, 2017, D.G.W. was hospitalized at KMCWC as an inpatient after her blood cultured positive for staphylococcus aureus infection, which had been acquired from her Broviac catheter line. *Id.*

On August 15, 2017, Dr. Puapong implanted a new Broviac catheter line in D.G.W. after her Broviac catheter line became dislodged. *Id.* From August 19, 2017, to September 1, 2017, D.G.W. was hospitalized at KMCWC as an inpatient, after her blood cultured positive for staphylococcus aureus infection, which had been acquired from her Broviac catheter line. *Id.* From September 2, 2017 to September 5, 2017, D.G.W. was hospitalized at KMCWC as an inpatient, after she accidentally pulled out her own Broviac catheter line. *Id.* at PageID.7161. On September 5, 2017, Dr. Puapong implanted a new Broviac catheter line in D.G.W. *Id.*

On September 24, 2017, D.G.W. presented at the KMCWC ED after a

seizure which lasted approximately twenty minutes. *Id.* At some point in this time frame she was given the drug Keppra because of her seizure. *E.g.*, Tr. V.2-55. From September 24, 2017, to October 19, 2017, D.G.W. was hospitalized at KMCWC as an inpatient, with a principal diagnosis of bacterial endocarditis. ECF No. 395 at PageID.7161. On September 26, 2017, D.G.W.'s blood culture (drawn on September 24, 2017) was positive for staphylococcus aureus infection. An echocardiogram revealed that D.G.W. had endocarditis, with vegetations on her mitral heart valve, consistent with endocarditis. The vegetations on the mitral heart valve measured 8 x 3 millimeters. A mobile vegetation reflecting infection was located on the tip of D.G.W.'s Broviac catheter line. And on September 27, 2017, the bacteria enterococcus was cultured from D.G.W.'s Broviac catheter line. *Id.*

During that hospitalization, on September 28, 2017, an MRI of D.G.W.'s brain revealed several foci of hemorrhage associated with small infarcts within the frontal and parietal cortices and right cerebellar hemisphere consistent with septic emboli. D.G.W.'s infection or infections of her central line had caused her to become septic and to throw septic emboli to her brain. *Id.* at PageID.7162.[27]

[27] As explained by Dr. Goodarzian, septic emboli contain infections and travel through the blood. Tr. V.3-34. Their presence means there is an infection somewhere in the body and that infection is spreading and targeting different areas of the body. Septic emoboli can travel to the brain. *Id.*

That is, the MRI showed brain injury which was consistent with septic emboli. Tr. V.3-37 (credible testimony of Dr. Goodarzian). The septic emboli in D.G.W.'s brain came from an infection of her Broviac catheter central line. Tr. V.3-42 to 43. Moreover, the septic emboli that went to her brain caused a stroke, which led to the seizure. Tr. V.3-195; Tr. V.4-8 (credible testimony of Dr. Elizabeth Moberg-Wolff). The scars make her more at risk for additional seizures. Tr. V.3-195. D.G.W. has cognitive delay secondary to her September 24, 2017 stroke and brain injury. Tr. V.3-167.

On April 10 to April 16, 2018, at 19 months of age, D.G.W. was admitted to the emergency department at Lurie Children's Hospital, for treatment of bacteremia caused by an infection in her central line. ECF No. 395 at PageID.7163. An April 11, 2018, echocardiogram revealed that D.G.W.'s endocarditis was still active. An echocardiogram was performed on April 11, 2018 and a small mobile echo density (about 4 x 2 millimeters) was noted on the posterior mitral valve leaflet, mild to moderated mitral regurgitation was noted, with mild dilation of the left atrium. *Id.*

On May 12, 2018, to May 21, 2018 D.G.W. was admitted to Lurie Children's Hospital for fever and an infected central line, which was removed. A May 13, 2018 echocardiogram again showed a 4 x 2 mitral valve echo density, suggesting a growth on the heart valve due to endocarditis infection. *Id.* at

PageID.7164. On May 21, 2018, D.G.W. had a new central line placed into her left internal jugular vein. *Id.* On May 23, 2018, D.G.W.'s central line was partially pulled out and she was unable to receive her parenteral nutrition overnight. She was readmitted to Lurie Children's Hospital and her central line was replaced. *Id.*

On July 19, 2018, D.G.W. had her first visit with pediatric neurologist Dr. Meghan O'Neill at Lurie Children's Hospital. Dr. O'Neill planned to contact Hawaii for a copy of D.G.W.'s MRI, to wean D.G.W.'s Keppra (D.G.W.'s anti-seizure medication) to .8 milliliters twice a day for one week and discontinue Keppra completely. Dr. O'Neill also ordered the medication Diastat for seizures lasting longer than five minutes that occurred outside the hospital. *Id.* at PageID.7165.

On October 14, 2018, D.G.W. was admitted to Lurie Children's Hospital after again pulling out her central line. The line was surgically replaced on October 15, 2018. *Id.*

On December 2, 2018, to December 3, 2018, at two years and three months of age, D.G.W. was admitted to Lurie Children's Hospital with seizures. Keppra was re-started, and D.G.W. was sent home with orders for Keppra twice a day. *Id.* at PageID.7166.

On December 17, 2018, to December 22, 2018, D.G.W. was admitted to Lurie Children's Hospital with history of fevers and pain to the left lower extremity. She was evaluated for septic arthritis, treated with antibiotics and discharged on December 22, 2018, with an order to take antibiotics for six weeks. An echocardiogram performed on December 18, 2018, showed the continued presence of the echo density on the mitral valve leaflet and mitral regurgitation. *Id.*

On March 20, 2019, D.G.W. was seen in the cardiology clinic at Lurie Children's Hospital for a follow up for Methicillin-Susceptible Staphylococcus Aureus ("MSSA") endocarditis with mild-moderate mitral valve regurgitation. She had an echocardiogram which showed the same echo density with mild to moderate mitral regurgitation in her heart. *Id.* at PageID.7167.

From May 3, 2019, through May 10, 2019, D.G.W. was admitted to Lurie Children's Hospital and diagnosed with sepsis due to MSSA bacteremia suspected to be due to her central line. An echocardiogram performed on May 5, 2019, again found a small mobile echo density on the atrial surface of the posterior mitral valve leaflet that was unchanged in appearance over the last year. *Id.* at PageID.7168.

On June 18, 2019, at 34 months of age, D.G.W. had her second visit with pediatric neurologist Dr. O'Neill for a follow-up regarding D.G.W.'s

seizures and need for anti-epileptic medication management. *Id.* Dr. O'Neill noted that D.G.W. had to be placed back on Keppra after a seizure in December 2017. *Id.* Dr. O'Neill ordered continued use of Keppra and recommended getting an IEP (Individualized Education Plan) evaluation for speech services and/or entering early childhood classroom placement when cleared by Dr. Valeria Cohran (D.G.W.'s treating pediatric gastroenterologist at Lurie Children's Hospital). *Id.* at PageID.7169; ECF No. 378 at PageID.6641.

From July 2, 2019, to July 10, 2019, D.G.W. was hospitalized at Lurie Children's Hospital and diagnosed with blood stream infection caused by her central line and endocarditis. An echocardiogram performed on July 4, 2019, again showed the lesion on D.G.W.'s mitral valve leaflet, consistent with a vegetation and bacterial endocarditis. ECF No. 395 at PageID.7169.

On August 9, 2019, D.G.W. was seen by infectious disease physician Dr. Jhaveri Ravi in a follow-up to her July 2−10, 2019 admission for endocarditis and chronic central line infections. Dr. Ravi took over D.G.W.'s infectious disease care. *Id.* Dr. Ravi prescribed IV antibiotics, ordered Mupirocin ointment to be used when cleaning her central line, and discussed with D.G.W.'s parents a decolonization regimen and possible long-term antibiotics to prevent future central line infections. *Id.* at PageID.7169 to 7170. On September 7, 2019, Dr. Ravi ordered a staph decolonization program with nasal Mupirocin, bleach baths, and

frequent laundry and daily suppressive therapy with antibiotic Bactrim via gastrostomy tube in an attempt to avoid further episodes of MSSA infection/endocarditis. *Id.* at PageID.7170.

On April 27, 2020, D.G.W. had her third visit with pediatric neurologist Dr. O'Neill, who noted that D.G.W. was still using sign language but had more words, articulation issues, and difficulty with tongue movements (per mother). Dr. O'Neill recommended continuing the anti-seizure medication, Diastat, at home if needed for seizures lasting longer than five minutes, an IEP if safe from gastrointestinal perspective, private speech therapy, and an audiology evaluation. Dr. O'Neill also documented her plan to contact Dr. Cohran about any upcoming procedures to see if a full MRI with epilepsy protocol could be coordinated and a repeat EEG performed prior to discontinuing any anti-seizure medication. *Id.* at PageID.7172.

In August of 2020, and May of 2022, Thomas Sullivan, Ph.D., performed independent neuropsychological examinations ("INEs") of D.G.W. Tr. V. 3-70 to 71. The INEs were designed to provide a comprehensive evaluation of D.G.W.'s level of functioning. Mr. Sullivan evaluated D.G.W. in fields of intelligence or IQ; adaptive functioning, i.e., her ability to take care of herself independently; receptive and expressive language abilities; motor skills; visual

perceptual reasoning, i.e., her ability to look at and understand things; and her emotional and behavioral functioning. *Id.*

According to Dr. Sullivan, D.G.W. showed severe impairment in her receptive and expressive language functioning, i.e., her ability to understand what is being said to her; and in her receptive language, i.e., her ability to speak and make herself known with any type of language. Tr. V.3-84 to 86, 89, 93 to 94.

D.G.W. has a mild intellectual disability; her IQ is in the 60s and is inferior to about 99% of children her age. Tr. V.3-85, 90. The results of D.G.W.'s IQ testing in the INEs were consistent with IQ testing performed by school psychologists who performed a multi-factored evaluation as part of an IEP, where the school psychologist found that D.G.W.'s cognitive functioning fell at the second percentile, i.e., lower than 98% of her peers. Tr. V.3-80.

D.G.W. also demonstrated very prominent attention problems. She was highly distractible by visual stimuli and inattentive, much more so than the average child of the same age. Tr. V.3-83 to 86, 101. D.G.W. showed impaired pre-academic achievement, prominent behavioral impairments, i.e., defiance and oppositionality, and poor social functioning. Tr. V.3-82 to 83, 86, 89, 91 to 92.

D.G.W.'s fine motor functioning testing demonstrated impairments in the use of her right and left hand. Her use of her right hand is moderately impaired, and her use of her left hand is mildly impaired. Tr. V.3-99 to 100.

D.G.W.'s intellectual, attention, self-care, language, and fine motor impairments are permanent. Tr. V.3-139.

The court finds and concludes by a preponderance of the evidence that the negligence discussed earlier was a substantial factor in causing the events just described, and thus in causing D.G.W.'s endocarditis and brain damage. These are known complications of short gut syndrome, and parenteral nutrition through a central line, and are reasonably foreseeable events and consequences of negligence that caused D.G.W.'s short gut syndrome. And there is no evidence of a superseding cause (and no rule of law relieving Defendant from liability). *See, e.g.*, *O'Grady v. State*, 140 Haw. 36, 44−47, 398 P.3d 625, 633−636 (2017) (discussing and applying the "*Mitchell* test" of legal causation, including whether superseding causes break a chain of causation and whether subsequent acts or events were foreseeable) (citing *Mitchell*, 45 Haw. at 132, 363 P.2d at 973);[28] *Gibo*

[28] *O'Grady* applies "a two-step analysis for determining whether the defendant's conduct was the legal cause of the plaintiff's injuries," 140 Haw. at 44, 398 P.3d at 633, which is:

> the defendant's conduct is the legal cause of the harm to the plaintiff if (a) the actor's conduct is a substantial factor in bringing about the harm, and (b) there is no rule of law relieving the actor from liability because of the manner in which his or her negligence has resulted in the harm.

*Id.* (internal brackets and citation omitted). "The second part of the causation analysis considers whether there are policy concerns or rules of law [such as a superseding cause] that would prevent imposition of liability on the negligent party even though the actor's negligence was a substantial factor in bringing about the harm." *Id.* at 47, 398 P.3d at 636.

*v. City & Cnty. of Honolulu*, 51 Haw. 299, 302, 459 P.2d 198, 200 (1969) ("[W]here a defendant's negligence causes injuries to a plaintiff and because of the weakened or impaired physical condition plaintiff suffers subsequent injuries, which are not brought about by the negligence of plaintiff, or any efficient intervening cause, defendant's negligence is deemed to be the proximate cause of both the original and subsequent injuries.") (citations omitted).

Although Plaintiffs are not seeking damages for expenses of past medical care, *see, e.g.*, ECF No. 397 at PageID.7202, the finding of causation is required because they are seeking damages for, among other things, the future costs of medical care related to D.G.W.'s heart and brain conditions resulting from the known complications of her short bowel syndrome and parenteral nutrition.

**E. Special (Economic) Damages—Threshold Findings**

Measuring the amount of economic damages in this case is heavily driven by two sets of threshold factual questions: (1) whether D.G.W. will need Gattex for the rest of her life, or if not, for how long will she continue to need it; and (2) whether D.G.W. will need parenteral nutrition and the corresponding requirement of a Broviac catheter for the rest of her life, or if not, for how long will she continue to need such nutrition.[29] If she no longer needs parenteral nutrition,

[29] For purposes of calculating damages, the court accepts the assumption used by Plaintiffs' life care planner Susan Riddick-Grisham that D.G.W.'s life expectancy is 50 years, (continued . . .)

and thus no longer needs a catheter, the concomitant possibility of infections is eliminated. She also would have little or no need for skilled nursing care to assist with such infusions and maintenance of the catheter. *See, e.g.*, Tr. V.4-45. And, of course, eliminating or reducing the need for Gattex also eliminates or reduces the costs for that medication.

### *1. The Need for Gattex for Life*

Plaintiffs' expert witness, Dr. Heyman, described Gattex, or teduglutide, as an

> analog of GLP-2, glucagon-like peptide-2, which is a hormone-like molecule that's normally secreted by enteroendocrine cells or specialized cells, mainly in the ileum and colon. . . . [I]t helps the intestine grow, so it helps enlarge the height of the villi and may have something to do also with the length of the intestine. It also can decrease stomach secretions, and overall has a positive effect in helping patients improve their intestinal function.

Tr. V.2-135. It has "been shown to enhance the ability of the intestine to absorb fluids and nutrients." ECF No. 378 at PageID.6642 (deposition testimony of Dr. Cohran). It was approved by the Food and Drug Administration in 2012 and for use in children in 2019. Tr. V.2-135; Tr. V.8-30. The goal of Gattex is to improve enteral (i.e., orally and through a tube into the stomach) adaptation to allow a

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(. . . continued)
which was based on Dr. Heyman's opinion that D.G.W.'s life expectancy is "into her 50s." *See* Pls.' Exh. 2 at 1; Tr. V.2-190.

patient to come off parenteral nutrition. Tr. V.2-148; Tr. V.8-31. According to its manufacturer, the recommended goal for Gattex is to see an overall decrease in the use of parenteral nutrition by between 20 to 30 percent. Tr. V.2-184; *see also* Tr. V.2-136 ("[T]he endpoint that was determined for Gattex was a 20 percent improvement in the intestinal function."); Tr. V.4-44 (Dr. Moberg-Wolff agreeing that "the purpose of Gattex is to reduce [D.G.W.'s] need for [parenteral nutrition] by at least 20 percent, hopefully by at least 30 percent"); Tr. V.7-77 (similar). D.G.W. began using Gattex in February of 2020. Pls.' Exh. 1; ECF No. 378 at PageID.6652.

The evidence of a *lifetime* need by D.G.W. for Gattex was mixed, contradictory, and shifting. Dr. Heyman established that, soon after her resection surgeries, D.G.W. initially received all her calories, fluids, vitamins, minerals and electrolytes through parenteral nutrition, but eventually started taking food through her mouth and a gastrostomy tube. Tr. V.2-145. Although still dependent on parenteral nutrition, she needs less of it over the past few years as her intestinal tract has adapted. Tr. V.2-148. Dr. Heyman also established that the use of Gattex has reduced the need for parenteral nutrition since D.G.W. started using it in February 2020. *See, e.g.*, V.2-155; Pls.' Exh. 1. He acknowledged that the goal of D.G.W.'s pediatric gastroenterologist, Dr. Cohran, is for D.G.W. to maintain

normal growth and development and ultimately eliminate the need for all parenteral nutrition. Tr. V.2-148.

When asked at trial whether D.G.W. would require Gattex for the rest of her life, Dr. Heyman answered that "I believe that she will . . . [or] at least for a long period of time." Tr. V. 2-157 to 158. He clarified that:

> at least at the moment, I think it's safe to say that Gattex is helping to keep her parenteral nutrition at a lower volume and nutrient level than if she weren't on it. I think Gattex also is potentially helpful in helping her intestine adapt with some of the absorption capacity that we talked about before. So I think overall it's—it's very likely that she's going to need to stay on Gattex and—and not stop it.

Tr. V.2-158. Dr. Heyman also admitted on cross-examination that the goal of Gattex is to achieve a 20 to 30 percent reduction in the need for parenteral nutrition (which she has achieved), and that physicians currently do not know the long-term effects of Gattex on children under five. Tr. V.2-185. He acknowledged that his expert report of August 31, 2020, estimated that D.G.W.'s estimated caloric intake was 83 percent from parenteral nutrition and 17 percent from enteral nutrition *before* Gattex, to 31 percent from parenteral nutrition and 69 percent from enteral nutrition *after* Gattex. Tr. V.2-183.

But, also in his August 31, 2020 expert report, Dr. Heyman had opined that D.G.W. will need "Gattex for the next 2 years (after which a determination will be made depending on whether or not the [parenteral nutrition]

can be further decreased as enteral feedings are increasingly tolerated)." Pls.' Exh. 78 at 10; Pls.' Exh. 181 at 10; Tr. V.2-197. Likewise, at his February 4, 2021, deposition, he agreed that "it's too early to tell one way or the other whether she would be able to come off both [parenteral nutrition or Gattex] or either," saying that "I think we need to see how she evolves." Pls.' Exh. 76 at 65; Tr. V.2-218. He explained at trial that his opinion had evolved since that time partly because newer data showed she had "plateaued." Tr. V.2-219. He summarized:

> at the moment, I think it would be wrong to stop the Gattex. I know there are folks who think stop the Gattex and see if it makes any difference, but I think both my opinion and I think Dr. Cohran as well from her statement believe that the Gattex is helping to maintain her where she is now, and stopping it, she would fall back.

Tr. V.2-220. He also admitted that there have been no studies done on patients that have shown the long-term effects of Gattex beyond two years. Tr. V.2-209. Overall, the court views Dr. Heyman's testimony regarding the need for Gattex for her entire lifetime as equivocal.

Similarly, the court views Dr. Cohran's deposition testimony (limited to the excerpts designated by Plaintiff on July 13, 2022, ECF No. 378) regarding D.G.W.'s lifetime need for Gattex as not definitive. Although Dr. Cohran agreed with the question that "the odds are that she'll have to stay on Gattex and parenteral nutrition to ensure that she gets sufficient calories, fluids, and calories

for the rest of her life, correct?," *id.* at PageID.6661, she previously had testified that D.G.W. "will continue to need [Gattex] for the foreseeable future," *id.* at PageID.6660. When asked what she meant by "foreseeable future," Dr. Cohran explained that "I would say at least for the next several years, she will need Gattex," but could not say beyond that, *id.*

It's clear from Dr. Cohran's testimony that, currently, (1) D.G.W. is benefitting from Gattex, (2) it has enhanced her intestinal adaptation, (3) Dr. Cohran plans to continue to continue to prescribe it, and (4) Dr. Cohran does not know what will happen if D.G.W. is taken off Gattex. ECF No. 378 at PageID.6659. It is also clear that there is some relationship between the use of Gattex and a corresponding reduction in the need for parenteral nutrition. For example, if D.G.W. achieves enteral autonomy (i.e., independence from parenteral nutrition) it could reduce or eliminate the need for Gattex. *Id.* at PageID.6661. But this testimony by itself does not convince the court that she will need Gattex for life.

And there is other evidence. Dr. Bornstein, Defendant's expert witness in pediatric gastroenterology, testified that the percentage of D.G.W.'s required parenteral nutrition had steadily declined over the past four or five years, especially with the intervening use of Gattex. Tr. V.8-21. He opined at trial that D.G.W. would be off Gattex at least by four years measured from when he testified

on August 11, 2022. Tr. V.8-35. His assessment, based on her progress to date, was that D.G.W. "is very close to being weaned off of parenteral nutrition and will successfully do so." Tr. V.8-37. And so, he expects her to be weaned off parenteral nutrition first while still on Gattex to make sure she continues to do well, after which he would expect Gattex to be stopped. *Id.* Given the percentage of calories that D.G.W. is receiving at present, he would expect her to be off of parenteral nutrition one day a week (with continued enteral nutrition) and eventually be weaned. *Id.* He acknowledged, however, that D.G.W. has limitations because of her ultra-short bowel (its exact length is presently unknown, but was only five inches at age three months), and her loss of an ileocecal valve. Tr. V.8-54, 66. Although he could not predict how much, he did believe that her small bowel and intestine would continue to grow as she grows older. Tr. V.8-89.

Defendant's life-care planner, John Fountaine's preliminary life care plan of December 2020 concluded that D.G.W. would need Gattex for "2 more years," Def.'s Exh. D-15 at 5, with parenteral nutrition for the next two to five years, *id.* at 7. He based his figures, in part, on an opinion from Dr. David Mercer from October 13, 2020 that D.G.W. would be able to wean from parenteral support and have her central line removed, but to achieve such weaning she would need to remain on an intestinal growth factor therapy "for the remainder of her life," *id.* at 3, or "indefinitely," *id.* at 4. Dr. Mercer (as did Dr. Bornstein) recognized that

other similar drugs besides Gattex are being tested which are anticipated to have better effectiveness. *See id.*; Tr. V.8-36. Dr. Mercer also based his opinion on knowledge that when children reach adulthood and stop growing their daily caloric requirements drop significantly, *see* Def.'s Exh. D-15 at 3, and Mr. Fontaine's life care plan appears to have incorporated that premise.[30]

From a review of the evidence, the court cannot conclude that Plaintiffs have proven by a preponderance of the evidence that D.G.W. will need Gattex for her lifetime. The credible evidence is mixed, with valid opinions on both sides. Plaintiffs, however, have proven that D.G.W. is doing well on the drug, and it is likely she will need it for several more years. Beyond that, no one really knows. The court cannot base an award of damages based on speculation that she will need Gattex for her lifetime. The court thus bases its calculations on a need by D.G.W. for Gattex at current levels until age 18.[31]

***2. Parenteral Nutrition for Life***

Although a closer call, the court also finds that Plaintiffs have not proven for purposes of awarding special damages that D.G.W. will need parenteral

[30] Dr. Mercer apparently was an expert for the Kapiolani Defendants. Tr. V.8-123.

[31] There was very limited evidence that, generally, a drug patent lasts 17 years, after which period cheaper generic versions become available. *See* Tr. V.2-210. But there was absolutely no evidence of the precise patent for the version of Gattex that D.G.W. is using—e.g., when it became effective, when it might expire—much less any evidence of the costs of a possible generic version. The record is insufficient for the court to make any definitive conclusions regarding Gattex's patent or the future costs of a generic version of the drug.

nutrition for her entire lifetime. The witnesses all agreed that she has made progress towards the goal of eliminating parenteral nutrition. Tr. V.2-148,155; Pls.' Exh. 1; Tr. V.8-23; ECF No. 378 at PageID.6660. She has a robust appetite. *E.g.*, Tr. V.2-161. Her bowel and small intestines are expected to grow (although maybe only to ten inches in length) and become more efficient and adapt. Tr. V.2-144, 200; Tr. V.8-22. According to credible testimony of Dr. Bornstein, near the time of trial, she was getting about 15 percent or less of her calories from parenteral nutrition, with the rest by eating. Tr. V.8-23. Since 2019, her gastrostomy tube's use has been limited to hydration, some medications, and peptide. Tr. V.2-127 to 128; Tr. V.4-40.

Although Dr. Cohran agreed in her deposition that the odds are that D.G.W. would have to stay on parenteral nutrition for the rest of her life, ECF No. 378 at PageID.6661, she also stated that "it's hard for me to say how long it's going to take me to actually get her off," *id.* at PageID.6660, "[it's] hard to really say with a degree of certainty what potentially could happen," *id.*, "I just . . . don't know what she's going [to] do . . . [a]ll these patients have really varied," *id.*, and "she may need 10 percent of her calories provided by [parenteral nutrition] for a prolonged period of time . . . [i]t's hard for me to predict that, given how short she is with regard to her short bowel syndrome," *id.* at PageID.6661. She agreed that "for at least the foreseeable future. . . she's going to . . . still need the G-tube." *Id.*

On the other end of the spectrum, Dr. Bornstein opined that D.G.W. would be completely weaned off parenteral nutrition in "no more than two years." Tr. V.8-38. But that particular opinion is questionable given D.G.W.'s ultra-short bowel, lack of ileocecal valve, and length of time she has already been on parenteral nutrition (given recent medical studies regarding short gut syndrome). *See* Tr. V.8-56 to 64, 69.

The court concludes that, from a preponderance of the evidence, it is impossible to know whether D.G.W. will require parenteral nutrition for her entire lifetime. The court cannot award economic damages based on speculation, and D.G.W.'s precise needs are subject to several unpredictable variables. However, a preponderance of the evidence has certainly established that she is likely to incur significant expense and will need parenteral nutrition (and probably a gastrostomy tube) for at least several more years, possibly until she has finished development and her intestines have adapted to her nutritional needs. The court will base an award on the establishment of the need for at least some parenteral nutrition (with attendant needs such as catheter along with its risks such as infection) until age 18.

***3. Age Eighteen***

The court acknowledges that no expert, either from Plaintiff or Defendant, specifically opined that D.G.W. would need parenteral nutrition or

Gattex until age 18.[32] But, as just explained, the record contains ample and wide-ranging assessments and descriptions of D.G.W.'s future needs of both Gattex and parenteral nutrition, ranging from "a lifetime" or "indefinitely" or "the foreseeable future," or "at least for the next several years," or "at least for a long period of time [for Gattex]," to "2 more years [of Gattex]," or "2 to 5 more years [of parenteral nutrition]," or "very close to being weaned off of parenteral nutrition" or "it's too early to tell one way or the other." And considering all the credible evidence—including medical data, opinions from treating doctors, expert witness opinions, and reports of life care planners—the court in its role as factfinder must make a decision based on reason and a fair assessment of the credible evidence, making reasonable inferences from that evidence.

As the Supreme Court recognized long ago in assessing damages,

> [Factfinders] are allowed to act upon probable and inferential as well as direct and positive proof. And when, from the nature of the case, the amount of the damages cannot be estimated with certainty, or only a part of them can be so estimated, we can see no objection to placing before the [factfinder] all the facts and circumstances of the case, having any tendency to

[32] As explained earlier, Defendant's life care planner based his assessment of a need by D.G.W. for Gattex for "2 more years" and parenteral nutrition for "2 to 5 more years," in part, on Dr. Mercer's report. And he quoted Dr. Mercer's report for knowledge that "[w]hen children reach adulthood and stop growing their daily calorie requirements drop significantly . . . [and] we could anticipate when she reaches the final plateau on her growth curves, her calorie needs would drop and her ability to wean off parenteral nutrition support would increase." Exh. D-15 at 3. The report, however, also suggested that D.G.W. "will need to remain on an intestinal growth factor therapy for the remainder of her life." *Id.*

> show damages, or their probable amount; so as to enable them to make the most intelligible and probable estimate which the nature of the case will permit.

*Story Parchment Co. v. Paterson Parchment Paper Co.*, 282 U.S. 555, 564 (1931). "[W]hile the damages may not be determined by mere speculation or guess, it will be enough if the evidence show the extent of the damages as a matter of just and reasonable inference, although the result be only approximate." *Id.* at 563.

Although damages may not be awarded by speculation, the general rule is that "while the *fact* of damages must be clearly shown, the *amount* need not be proved with the same degree of certainty, so long as the court makes a reasonable approximation." *Robi v. Five Platters, Inc.,* 918 F.2d 1439, 1443 (9th Cir. 1990) (applying California law); *see also, e.g.*, *McClaran v. Plastic Indus., Inc.*, 97 F.3d 347, 356 (9th Cir. 1996) ("The rule precluding speculative damages 'serves to preclude recovery, however, only where the fact of damage is uncertain . . . . Once the existence of damages has been shown, all that an award of damages requires is substantial evidence in the record to permit a factfinder to draw reasonable inferences and make a fair and reasonable assessment of the amount of damages.'") (quoting *Grantham & Mann, Inc. v. American Safety Prods., Inc.*, 831 F.2d 596, 602 (6th Cir. 1987) (applying Tennessee law)).

And Hawaii has adopted these very principles. *See Ferreira v. Honolulu Star-Bull., Ltd.*, 44 Haw. 567, 575, 356 P.2d 651, 656 (1960) ("[A]

distinction is made in the law between the amount of proof required to establish the fact that the injured party has sustained some damage and the measure of proof necessary to enable the jury to determine the amount of damage. It is now generally held that the uncertainty which prevents a recovery is uncertainty as to the fact of damage and not as to its amount.") (citing *Story Parchment Co.*); *see also Chung v. Kaonohi Ctr. Co.*, 62 Haw. 594, 605, 618 P.2d 283, 290–91 (1980) (following *Ferreira*), *abrogated on other grounds by Francis v. Lee Enterprises, Inc.*, 89 Haw. 234, 971 P.2d 707 (1999)). "[W]here, as here, the fact of damage is established, a more liberal rule is allowed in determining the amount." *Ferreira*, 44 Haw. at 575, 356 P.2d at 656.

Here, in making its findings, the court views the position of both sides regarding future damages as overstatements—exaggerations taken to the extreme for purposes of maximizing or minimizing amounts of future damages. Given all the evidence—considering that D.G.W. is doing well and has improved tremendously over the past five years, where the goal is to wean her from parenteral nutrition and given the uncertainties of Gattex, but also considering that she may have fundamental constraints with an ultrashort bowel and a lack of an ileocecal valve—the court rejects Defendant's position that D.G.W. will be weaned from parenteral nutrition in two to four years. But the court also is unable to conclude, by a preponderance of the evidence, that she will need either or both

parenteral nutrition and Gattex for her entire lifetime. Plaintiffs have certainly proven, by a preponderance of the evidence, that she will need both for at least several more years; beyond that her specific needs are unknown, especially for her lifetime. Based on all the credible evidence, the court's best assessment is that she will need both until she reaches adulthood. The court thus makes an award of special damages based on D.G.W. receiving both parenteral nutrition and Gattex at current levels for another 12 years.

## F. Special (Economic) Damages—Specific Categories

### *1. Life Care Plan*

In determining the amounts of economic damages, the court begins with—but modifies substantially—the report of Plaintiffs' life care planner, Susan Riddick-Grisham. *See* Exh. P-2. Her life care plan submitted into evidence sought at least $75 million in economic damages ($70,572,303.33 plus either $5,110,922.70 or $7,418,149.27 for "Future Medical Care—Aggressive/Surgical"). *Id.* at 16. The court uses the same general categories of damages as in Riddick-Grisham's plan, but modifies amounts of damages for the major components of parenteral nutrition, skilled nursing, and Gattex—the totals of which were computed based on a lifetime need until age 50—by calculating a need for another

12 years (from age six).[33] The court makes other modifications based on testimony at trial. The court first lists and summarizes the categories and amounts it has found (by a preponderance of the evidence) in the following table. The court then provides explanations and itemizations of specific subcategories in sections that follow.

| Category of Life Care Plan Damages | Amount |
|---|---|
| 1. Evaluations | $ 48,859.97 |
| 2. Therapeutic Modalities | $ 1,115,516.34 |
| 3. Aid for Independent Function | $ 58,491.00 |
| 4. Home Furnishings and Accessories | $ 16,711.50 |
| 5. Medications | $ 6,756,380.50 |
| 6. Supplies and Equipment | $ 3,032,511.51 |
| 7. Home/Facility Care | $ 5,015,120.00 |
| 8. Future Medical Care Routine | $ 1,150,098.61 |
| 9. Future Medical Surgical/Complications | $ 1,378,415.28 |
| **Total** | **$ 18,572,104.71** |

[33] Some of the categories (such as the plan's projected evaluations), however, are still valid as needed for a lifetime and were calculated when D.G.W. was still five years old. The court will not recalculate those figures based on D.G.W. being nearly age six as of close of evidence on August 12, 2022, and will accept those figures computed from age five. Other calculations for Gattex and parenteral nutrition, however, will be based on an additional 12 years.

*a. Evaluations*

Plaintiffs' life care plan includes projections for five categories of periodic evaluations that D.G.W. will need for life, specifically for occupational therapy, speech therapy, augmentative communication, neuropsychological, and behavioral needs. *See* Exh. P-2 at 1. These evaluations were recommended by neuropsychologist, Thomas Sullivan, Ph. D., *see* Tr. V.3-106 to 107, and were explained by Riddick-Grisham at trial, *see* Tr. V.4-89 to 90. The court adopts the lifetime total for these evaluations of $48,859.97.

*b. Therapeutic Modalities*

Next, Plaintiffs' life care plan includes eight categories of projected "therapeutic modalities," which essentially are various kinds of support services needed based on D.G.W.'s condition. The categories are occupational therapy, speech therapy, augmentative communication training, behavioral counseling with parents, individual counseling, a tutor, an educational advocate, and a case manager. *See* Exh. P-2 at 2. The need for these therapeutic modalities was adequately explained by Riddick-Grisham, which she included after consultation with Mr. Sullivan and Dr. Moberg-Wolff. *See* Tr. V.4-89 to 93. The court adopts the lifetime total of $1,115,516.34 for these items from age five until age 22 or age 50 at the average rates, as set forth in the life care plan. *See* Pls.' Exh. P-2 at 2.

*c. Aid for Independent Function*

Plaintiffs' life care plan includes $58,491.00 for an "augmentative communication device" for D.G.W.'s lifetime. Exh. P-2 at 4. Riddick-Grisham consulted with Dr. Moberg-Wolff and her testimony sufficiently established the need for a device, where D.G.W. will need it to communicate given her speech impediments, along with replacements every five years. *See* Tr. V.4-91 to 93; Tr. V.3-184 to 184. The court accepts the $58,491.00 lifetime cost as an element of economic damages.

*d. Home Furnishings and Accessories*

Next, Plaintiffs' life care plan includes the cost of a whole house generator and general maintenance of the generator for D.G.W.'s projected lifetime. It also includes a separate refrigerator for medications. *See* Exh. P-2 at 5. Dr. Heyman explained credibly that a generator and refrigerator are needed for parenteral nutrition. Tr. V.2-164 to 165. They are needed to avoid contamination and are vital if her home loses power. *See* Tr. V.2-217. Dr. Moberg-Wolff's testimony also supported the need for these accessories. *See* Tr. V.3-183. The court agrees that these accessories are required, but modifies the projected expenses from a lifetime to the next 12 years. Specifically, based on Riddick-Grisham's cost estimates, the court calculates $8,823.50 for a generator, $5,020.00 for installation, $2,280.00 for maintenance ($190 times 12), and $588 for a

refrigerator ($294.00 times two). The total for home furnishings and accessories is $16,711.50.

*e. Medications*

Plaintiffs' life care plan sought $23,307,398.50 for the future costs of medication. *See* Exh. P-2 at 7, 16. The bulk of this figure is based on Gattex for D.G.W.'s lifetime—another 45 years at $41,681.50 per month, totaling $22,508,010.00. *See* Exh. P-2 at 6. As previously explained, however, the court bases damages on expected costs of Gattex for 12 more years (rather than 45). The court has recomputed that expected cost, which is $6,002,136.00 (12 years at $41,681.50 per month). That is, economic damages for future costs of Gattex are $6,002,136.00.

For all the other medications in the life care plan at Exh. P-2, the court accepts the explanations given by Dr. Moberg-Wolff, Tr. V.3-184 to 189, Tr. V.4-47 to 56; Dr. Heyman, Tr. V.2-166 to 168; and Riddick-Grisham, Tr. V.4-96 to 97. The court, however, reduces the expected costs for Bactrim—which is used to help prevent infections of the central line, *see, e.g.*, Tr. V.2-62, 166—from a need for D.G.W.'s lifetime ($61,560.00 according to Exh. P-2 at 6) to a need for twelve years ($16,416.00, which is $114.00 per month for 12 years). That is, economic damages for future costs of Bactrim are $16,416.00.

Given those adjustments, the total economic damages for future costs of medications is $6,756,380.50.[34]

*f. Supplies and Equipment*

Next, Plaintiffs' life care plan computed a total cost of $11,659,571.91 for "supplies and equipment," which consists of (1) $11,274,213.60 for "[parenteral nutrition]/G-tube related supplies and pharmacy" for D.G.W.'s lifetime,[35] (2) $191,625.00 for diapers for seven years, (3) $22,885.50 for Depends (adult incontinence diapers), and (4) $1,252.80 for wipes over a lifetime. Exh. P-2 at 8. The court makes two adjustments to these figures.

First, as previously explained, the court bases special damages on a need for parenteral nutrition for 12 more years, not a lifetime. The court computes this amount as $3,006,456.96. This figure is based on an average cost of $4,818.04 per week, times 52 weeks, times 12 years. *See* Exh. P-2 at 8.

[34] The figure is computed by the following: $23,307,398.50 (the original amount sought in Plaintiffs' life care plan, Exh. P-2 at 7) minus $22,508,010.00 (the original amount sought for Gattex for life, Exh. P-2 at 6) plus $6,002,136.00 (the amount of Gattex awarded) minus $61,560.00 (the original amount sought for Bactrim, Exh. P-2 at 6) plus $16,416.00 (the amount of Bactrim awarded).

[35] Plaintiffs submitted no breakdown of such expenses itemizing between parenteral nutrition, on one hand, and "G-tube related" supplies and pharmacy, on the other. The evidence established that parenteral nutrition (supplied though a central line or Broviac catheter) is different from enteral nutrition (supplied through as gastrostomy tube or by eating). The court would have no evidence enabling it to award only "G-tube related" supplies or pharmacy for life (or any other period), but not parenteral nutrition.

Second, as admitted at trial, the $191,625.00 for diapers—the need for which the court accepts, given testimony regarding incontinence, *see, e.g.*, Tr. V.2-77, 170—is a decimal point error, and should be $1,916.25. *See* Tr. V.4-98.

Given those adjustments, the court awards economic damages of $3,032,511.51 for supplies and equipment.[36]

*g. Home/Facility Care*

Plaintiffs also seek $33,194,660.00 in economic damages for lifetime "Home/Facility Care." Exh. P-2 at 9. The bulk of this figure ($32,543,100.00) is for 24-hour skilled nursing for D.G.W.'s lifetime. The other items are (1) $618,800.00 for an adult day program from age 22 for 28 years, until the end of D.G.W.'s life expectancy; and (2) $32,760.00 for "financial oversight" from age 22 for 28 years. *Id.*

Given the court's finding that D.G.W. is entitled to damages for 12 more years of Gattex and parenteral nutrition, the court must adjust the skilled nursing damages accordingly. That is, skilled nursing is required, if at all, because of the needs associated with parenteral nutrition and a Broviac catheter, and administration of Gattex. *See, e.g.*, Tr. V.2-171 to 173, 178; Tr. V.4-45 (testimony of Dr. Moberg-Wolff that eliminating the risk of infection eliminates the need for

[36] This figure is $3,006,456.96 for parenteral nutrition, plus $1,916.25 for diapers, plus $22,885.50 for adult diapers, plus $1,252.80 for wipes, as adjusted from Plaintiffs' life care plan, Exh. P-2 at 8.

24/7 nursing care); Tr. V.8-29 (testimony of Dr. Bornstein recognizing that skilled nursing could be required for administration of parenteral nutrition). So, at most, skilled nursing would be needed for 12 years.

As for the need for skilled nursing 24 hours a day, the testimony was mixed. D.G.W. has never had such care at home by a nurse on a 24-hour basis, nor has it been recommended by Dr. Cohran. *See* Tr. V.2-123. Although Dr. Heyman opined that she will need skilled nursing care for her lifetime, Tr. V.2-171, his testimony as to a need for 24 hours a day was not convincing. *See* Tr. V.2-173 ("I think she needs to be monitored throughout the time that she's got the catheter in place, and that's 24/7."), Tr. V.2-201 (Dr. Heyman admitting that "the actual time of the parenteral nutrition setup and cleanup is probably about an hour on each end"). His whole testimony suggests a need for about eight hours a day. Tr. V.2-202. Dr. Moberg-Wolff also supported the need for skilled nursing, Tr. V.3-189, but, on cross-examination, was vague as to the need for full 24/7 care, with much time devoted to "monitoring." *See* Tr. V.4-35 to 38, 44.

On the other hand, Dr. Bornstein testified for the United States that D.G.W. could reasonably need skilled nursing, Tr. V.8-29, but not for 24 hours a day and perhaps only for "15 minutes or so." *Id.* But John Fountaine, Defendant's life care planner, based the government's proposed life care plan on a need for skilled nursing for an average of 12 to 14 hours a day, based in part on a report of,

and consultation with, Dr. Gregory Yim (an expert witness for the Defendant) and other records, including expert reports of "former experts of the co-defendant . . . the United States and . . . of plaintiffs." *See* Tr. V.8-98, 103; Exh. D-15 at 8.

Reviewing all the evidence, the court finds and concludes, by a preponderance of the evidence, that D.G.W. is reasonably entitled to skilled nursing for 12 hours a day. That is, the court accepts the basic assumptions made by Defendant's life care planner. Exh. D-15 at 8. The court will base economic damages for skilled nursing at 12 hours a day for the next 12 years. That is, the court finds economic damages of $4,363,560.00 for skilled nursing services. This figure is computed using $85 per hour (*see* Exh. P-2 at 9), times 12 hours, times 356.5 days (which is based on a similar assumption that Riddick-Grisham used to account for ten days of hospitalization based on infections or other emergencies where nursing would not be needed in the home, *see id.,* but instead utilizing a figure of 8.5 days of hospitalization where Riddick-Grisham assumed a range of "7-10 days," Exh. P-2 at 14, per year for readmissions).[37]

The court also accepts the need and costs for an adult day care program for D.G.W.'s lifetime from age 22, and for financial oversight, as explained by Dr. Moberg-Wolff. *See* Tr. V.3-190 to 191, 192 to 193.

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[37] Defendant's life care planner estimated a "base cost" for skilled nursing care of $65 to $85 per hour. *See* Exh. D-15 at 8. Neither side, however, submitted estimated costs based on hiring a personal nurse on an annual salary basis.

In sum, the court awards economic damages of $5,015,120.00 for "home/facility care." This figure is the sum of $4,363,560.00, $618,800.00, and $32,760.00.

*h. Future Medical Care (Routine)*

Next, Plaintiffs' life care plan includes $1,150,098.61 for routine future medical care. *See* Exh. P-2 at 10 to 13. These items include costs of specialists related to D.G.W.'s heart and neurological conditions, as well as a gastroenterologist, an infection disease doctor, a psychiatrist, and a physiatrist. *Id.* at 10. The items also include anticipated costs of diagnostic testing such as MRIs, X-rays, and ultrasounds, *id.* at 12 to 13, as well as associated blood testing, *id.* at 11. The court accepts Dr. Heyman's and Dr. Moberg-Wolff's explanation of the need for these anticipated medical expenses as all related to D.G.W.'s conditions that are associated with her short-gut syndrome, and heart and neurological conditions. *See, e.g.*, Tr. V.2-174 to 177; Tr. V.3-193. The court accepts the plan for these items as set forth by Riddick-Grisham. *See* Tr. V.4-102. Accordingly, the court awards economic damages of $1,150,098.61 for future routine medical care for D.G.W.

*i. Future Medical Care (Surgical/Complications)*

The last item in Plaintiffs' life care plan consists of possible future medical care for "surgical intervention or aggressive treatment." Exh. P-2 at 14.

This item includes future treatment for (1) lifetime emergency room visits, hospital admissions for treatment of complications, and central line replacements, as well as (2) possible future medical procedures such as a bowel lengthening, a liver transplant, a bowel transplant, costs of medications following transplantation, and gallbladder surgery. *Id.*

The first three future expenses (emergency room visits, hospital admissions, and central line replacements) are all reasonable expectations, given the frequency with which D.G.W. has had such complications in the past, as explained by Dr. Heyman (*see* Tr. V.2-179) and Dr. Moberg-Wolff (*see* Tr. V.3-205). The court, however, only includes these expenses for the next 12 years, not for D.G.W.'s lifetime because these complications should not occur if she no longer requires parenteral nutrition and a central line. Using the same assumptions as to frequency and yearly costs that Riddick-Grisham used (*see* Exh. P-2 at 14) the court awards (1) $141,224.88 for future emergency care, which is $5,884.37 per visit, times two visits per year, times 12 years; (2) $1,175,184.84 for future hospital admissions, which is $11,521.42 per day, times 8.5 days (where Riddick-Grisham estimated hospital stays of between seven and ten days) times 12 years (once a year); and (3) $62,005.56 for central line placements, which is $15,501.39 times four (where Riddick-Grisham estimated a replacement every three to five years).

The court, however, does not award future expenses for a liver transplant, bowel lengthening, a bowel transplant, or gallbladder surgery. The testimony established that these procedures are not likely or, at best, possible (not probable). *See* Tr. V.2-187 to 188; Tr. V.4-104 to 105; Tr. V.7-82; Tr. V.8-34 to 35.

In sum, the court awards economic damages of $1,378,415.28 for future non-routine medical care (*i.e.*, "surgical intervention" as Plaintiffs' lifecare plan labels such future expenses).

***2. Past Parental Care***

Laura Warren also seeks economic damages for past skilled care (nursing or attendant care, not for past medical services or costs for medications) that was provided gratuitously. *See* ECF No. 441 at PageID.9472. Specifically, she seeks $2,233,800.00, which is based on a rate of $85 a day (the rate for future skilled nursing in Plaintiffs' life care plan, Exh. P-2 at 9) for 12 hours a day, 365 days a year, for the past six years (September 2016 until the end of trial). *See id.* at n.5.

Trial testimony established that D.G.W.'s parents performed substantial services of attendant care, many similar to those that would be performed by a nurse or skilled nurse. For example, to assure D.G.W. gets enough calories, vitamins, electrolytes, and fluids, Laura spends the majority of her day

preparing, cooking, servicing, and clearing up after meals for D.G.W. Tr. V.2-88. She has to count the number of vitamin water and water bottles that D.G.W. drinks. *Id.* Laura inspects D.G.W.'s stool for blood, a side effect of Gattex, as well as the stool's liquidity. Tr. V.2-88 to 89. Laura orders and organizes supplies and medications, makes sure that she is home to sign for them when delivered. Tr. V.2-89 to 90. Her parents monitor her for infections, and take her the hospital when ill. Tr. V.2-90. They also prepare, administer and disassemble D.G.W.'s parenteral nutrition every night, Exh. J-51 ("Day in the Life" video), and maintain her central line and G-tube port. Tr. V.2-90. They also prepare and administer Gattex every night through shots. Tr. V.2-90 to 91. Laura ensures that D.G.W. regularly sees and makes it to her appointments with her pediatric gastroenterologist, cardiologist, neurologist, and psychologist, and collect lab results. Tr. V.2-91. If a line dislodges, they assess the wound, tape down the line with steristrips, and take her to the emergency department at Lurie Children's Hospital, a drive of approximately 1.5 hours away from their home. Tr. V.2-92.

In a pre-trial motion in limine regarding collateral sources, ECF No. 373, Plaintiffs raised the issue of recovery for past services, notifying the court and Defendant that they would be seeking compensation for the reasonable value of past and future "gratuitous" care provided by D.G.W.'s parents or others, and seeking to preclude Defendant from offering evidence or argument that Plaintiffs

are not entitled to damages for past or future care provided gratuitously by family or others. *See* ECF No. 373 at PageID.6260−6262. In response to that motion in limine, Defendant did not dispute or oppose the proposition that past care by a parent or others could be recoverable. *See* ECF No. 387. And, indeed, Defendant did not offer such evidence or argument at trial. That is, Defendant does not dispute that Laura Warren is entitled to reasonable compensation for past services provided gratuitously, especially if—as the court has found—D.G.W. requires such services in the future. And, in any event, persuasive case law supports Plaintiffs' request in this instance. *See, e.g.*, *1st of Am. Bank, Mid-Michigan, N.A. v. United States*, 752 F. Supp. 764, 779 (E.D. Mich. 1990) ("[T]his Court will be awarding future economic damages for attendant care. It follows that attendant care should also be recognized as a past damage."); *Muenstermann by Muenstermann v. United States*, 787 F. Supp. 499, 523 (D. Md. 1992) ("[E]ven gratuitously furnished medical care and treatment are recoverable"); *Hill v. United States*, 81 F.3d 118, 119-20 (10th Cir. 1996) (upholding, in an FTCA medical malpractice suit, the trial court's finding that the parental care was compensable when it was "equivalent both in kind and quality to the care" a Licensed Practical Nurse would have provided). As California courts have held:

> The reasonable value of nursing services required by the defendant's tortious conduct may be recovered from the defendant even though the services were rendered by members of the injured person's family and without an

> agreement or expectation of payment. Where services in the way of attendance and nursing are rendered by a member of the plaintiff's family, *the amount for which the defendant is liable is the amount for which reasonably competent nursing and attendance by others could have been obtained*.

*Hanif v. Hous. Auth.*, 246 Cal. Rptr. 192, 198 (Ct. App. 1988) (emphasis added). *See also Williams v. The Pep Boys Manny Moe & Jack of Cal.*, 238 Cal. Rptr. 3d 809, 819 (2018) (same). And Hawaii law also holds that recovery may still be awarded for gratuitous services. *See Bynum v. Magno*, 106 Haw. 81, 87, 101 P.3d 1149, 1155 (2004).

Nevertheless, the court reduces the amount sought for past services because such services did not begin in September of 2016. At that time, D.G.W. was still hospitalized at KMCWC. The evidence shows that D.G.W. did not return home until January 26, 2017. *See* Tr. V.2-44; Exh. J-13 at KMCWC6149 (discharge date of 1/26/2017); ECF No. 395 at PageID.7160. That is, D.G.W.'s parents did not provide nursing type services at home until January 26, 2017, at the earliest. Moreover, the record reflects several lengthy hospitalizations from May 2017, until July 2019, ECF No. 395 at PageID.7160−7169. During these periods, skilled nursing-type services were not provided at home. Therefore, the court reduces the award for past skilled care from six years to 5.5 years.

Accordingly, the court awards $2,047,650.00 for past parental care provided by D.G.W.'s parents. The court uses the same cost data that Riddick-

Grisham otherwise utilized in Plaintiffs' life care plan, and as the court accepted in computing future skilled nursing needs, i.e., this figure is based on $85 per hour, for 12 hours a day, but for 5.5 years (not six years).

**G. General (Non-Economic) Damages**

Under Hawaii law, non-economic damages recoverable in tort actions "include damages for pain and suffering, mental anguish, disfigurement, loss of enjoyment of life, loss of consortium, and all other nonpecuniary losses or claims." HRS § 663-8.5(a). It further defines "pain and suffering" as "one type of noneconomic damages and means the actual physical pain and suffering that is the proximate result of a physical injury sustained by a person." HRS § 663-8.5(b). And HRS § 663-8.7 limits "damages recoverable for pain and suffering as defined in section 663-8.5 . . . to a maximum award of $375,000," subject to exceptions that do not apply in this case. "[R]ecovery for pain and suffering depend[s] on the existence of conscious pain and suffering." *Brown v. Clark Equip. Co.*, 62 Haw 530, 537, 618 P.2d 267, 272 (1980). Section 663-8.7, however, does not otherwise limit the amounts for categories of non-economic damages set forth in § 663-8.5(a), i.e., *besides* "pain and suffering," such as for "mental anguish, disfigurement, loss of enjoyment of life, loss of consortium, and all other nonpecuniary losses or claims."

Hedonic damages for loss of enjoyment of life include "loss of life's pleasures, or the incapacity to lead a normal life, the inability to enjoy one's family, or games, sports, hobbies, avocational skills, and the like." *Castro v. Melchor*, 142 Haw. 1, 11, 414 P.3d 53, 63 (2018) (quoting 2 Stuart M. Speiser et al., *The American Law of Torts* § 8:20 (2014)).

> The measurement of the joy of life is intangible. A [factfinder] may draw upon its own life experiences in attempting to put a monetary figure on the pleasure of living. It is a uniquely human endeavor . . . requiring the trier of fact to draw upon the virtually unlimited factors unique to us as human beings.

*Id*. at 17, 414 P.3d at 69 (quoting *Montalvo v. Lapez*, 77 Haw. 282, 303, 884 P.2d 345, 366 (1994) (emphasis omitted)).

"Extreme or severe 'emotional distress is defined as mental suffering, mental anguish, mental or nervous shock, including horror, grief, shame, humiliation, embarrassment, anger, chagrin, disappointment, worry and nausea.'" *Ritchie v. Wahiawa Gen. Hosp*., 597 F. Supp. 2d 1100, 1111 (D. Haw. 2009) (quoting *Hac v. Univ. of Haw.*, 102 Haw. 92, 106–07, 73 P.3d 46, 60–61 (2003) (editorial marks omitted)); *see also Enoka v. AIG Haw. Ins. Co.*, 109 Haw. 537, 559, 128 P.3d 850, 872 (2006) ("'[E]xtreme emotional distress' constitutes, inter alia, mental suffering, mental anguish, nervous shock, and other highly unpleasant mental reactions.") (internal citation omitted). "To show extreme emotional distress, [a] [p]laintiff must produce evidence that a reasonable person, normally

constituted, would be unable to adequately cope with the mental stress engendered by the circumstances of the case." *Ritchie*, 597 F. Supp. 2d at 1111 (citations omitted).[38]

Applying those principles here, Plaintiffs have sought damages of $375,000.00 for D.G.W. for physical pain and suffering, and $5,000,000.00 for mental anguish and suffering, extreme emotional distress, disfigurement, and loss of enjoyment of life. *See* ECF No. 441 at PageID.9472. The court agrees that, by a preponderance of the evidence, these figures are fair and reasonable considering the injury to D.G.W. and the degree to which her life has been profoundly changed by the negligence found in these Preliminary Findings and Conclusions. Although "[t]here is no precise calculation which will determine what is fair and reasonable compensation for pain and suffering," *Lauer v. Young Men's Christian Ass'n of Honolulu*, 57 Haw. 390, 398, 557 P.2d 1334, 1340 (1976), a finder of fact has discretion to award what is fair and reasonable, considering "the nature and extent of the injuries, the suffering occasioned by the injuries, and the duration and pain [of them]." *Id.* at 399, 557 P.2d at 1340. And the court agrees with Plaintiffs that, by a preponderance of the evidence, D.G.W. has a sufficient level of intelligence to

[38] Under Hawaii law, "[t]he elements of a claim for [NIED] are: (1) that the defendant engaged in negligent conduct; (2) that the plaintiff suffered serious emotional distress; and (3) that such negligent conduct of the defendant was a legal cause of the serious emotional distress." *Caraang v. PNC Mortg.*, 795 F. Supp. 2d 1098, 1122 (D. Haw. 2011) (citing *Tran v. State Farm Mut. Auto. Ins. Co.*, 999 F. Supp. 1369, 1375 (D. Haw. 1998)).

understand that she is cognitively and physically impaired and disfigured, and that therefore she will suffer extreme emotional distress throughout her life. ECF No. 441 at PageID.9417.

Similarly, Plaintiffs have sought $1,000,000.00 for Laura Warren for mental anguish and suffering, extreme emotional distress, and loss of spousal and filial consortium. *See* ECF No. 441 at PageID.9472. The court agrees with Plaintiffs that this amount is fair and reasonable, based on a preponderance of the evidence, given what Laura Warren has gone through for the past six years and how her family's life has changed due to the negligence that the court has found. *See, e.g.*, Tr. V.2-38, 41 to 44, 87 to 88; Tr. V.5-43 to 44; ECF No. 441 at PageID.9419.

In sum, the court awards the amounts sought by Plaintiffs for D.G.W. for (1) $375,000.00 for physical pain and suffering, and (2) $5,000,000.00 for mental anguish and suffering, extreme emotional distress, disfigurement, and loss of enjoyment of life; and for Laura Warren of $1,000.000.00 for mental anguish and suffering, extreme emotional distress, and loss of spousal and filial consortium. *See* ECF No. 441 at PageID.9472.

**H. No Reduction in Damages Based on Collateral Sources or TRICARE**

Lastly, Defendant argues that an award of economic damages based on future medical expenses or drug costs must be reduced or offset by the

collateral source rule. It contends that D.G.W. would be entitled to TRICARE benefits until age 21 based on her status as a military dependent, where her father is now medically retired from the U.S. Army. *See* ECF No. 387 at PageID.6891; ECF No. 440 at PageID.9260–9261.[39] Defendant has the burden to prove entitlement to this offset from economic damages. *See Siverson v. United States*, 710 F.2d 557, 560 (9th Cir. 1983); *Brown v. United States*, 2020 WL 6811121, at *11 (S.D. Miss. May 13, 2020) ("The Government, having requested an offset or credit for future Tricare payments, has the burden to prove that this relief is warranted.") (citing cases). Defendant has not met its burden.

Like most jurisdictions, Hawaii law follows the collateral source rule, which "in general, provides that benefits or payments received on behalf of a plaintiff, from an independent source, will not diminish recovery from the wrongdoer." *Bynum*, 106 Haw. at 86, 101 P.3d at 1154. "Under the collateral source rule, a tortfeasor is not entitled to have its liability reduced by benefits received by the plaintiff from a source wholly independent of and collateral to the tortfeasor[.]" *Id.* (quoting *Sam Teague, Ltd. v. Hawaii Civil Rights Comm'n*, 89 Haw. 269, 281, 971 P.2d 1104, 1116 (1999)) (internal quotation marks and citation omitted). The collateral source rule does not generally apply when the benefit is

[39] "The TRICARE program is established for the purpose of implementing a comprehensive managed health care program for the delivery and financing of health care services in the Military Health System." 32 C.F.R. § 199.17(a).

derived from the defendant. *See, e.g.*, *McLean v. Runyon*, 222 F.3d 1150, 1156 (9th Cir. 2000).

One question, then, is whether a source—such as TRICARE—is "independent" or "wholly independent" from the tortfeasor. In this context, courts sometimes apply a test that "government payments are collateral if the payments come from 'a special fund that is separate and distinct from general government revenues' and to which the plaintiff has contributed." *Mays v. United States,* 806 F.2d 976, 977 (10th Cir. 1986)) (quoting *Berg v. United States*, 806 F.2d 978, 985 (10th Cir. 1986)).[40] As the Ninth Circuit reasoned in discussing medicare benefits, "[c]ourts distinguish between those benefits that come from unfunded general revenues of the United States (deductible) and those that come from 'a special fund supplied *in part* by the beneficiary or a relative upon whom the beneficiary is dependent' (nondeductible)." *Siverson*, 710 F.2d at 560 (quoting *United States v. Harue Hayashi*, 282 F.2d 599, 603 (9th Cir. 1960)).

That is, under this reasoning, if TRICARE benefits are from a "special fund" then they are collateral, but if they are paid from general government revenues then they are from the Defendant itself—meaning that such payments are

[40] Under this analysis, military service itself "is not the type of contribution required by the collateral source rule." *Mays*, 806 F.2d at 977. That is, "[a] showing that one's status makes one eligible for government benefits is not a showing that one has 'contributed to a special fund' from which benefits are now being received." *Id.*

*not* "wholly independent" from the tortfeasor—thus entitling a tortfeasor to an offset. Some cases have thus concluded that TRICARE benefits are paid from the general treasury and are not "collateral," at least for purposes of benefits *already* paid. *See, e.g.*, *Murphy v. United States*, 2009 WL 454627, at *6 (D. Haw. Feb. 23, 2009) (applying collateral source rule to offset a past payment under a "TriCare Prime Program"); *Lawson v. United States*, 454 F. Supp. 2d 373, 415 (D. Md. 2002) ("The vast majority of courts to consider this issue, however, have concluded that Tricare/CHAMPUS benefits are *not* a collateral source, holding that they are benefits derived from general revenues of the United States, and that an award must be reduced to the extent of such benefits.") (citing *Mays*).

But, as for future benefits, many courts have also concluded that it is speculative whether TRICARE benefits will continue to be available for a plaintiff's lifetime for at least two reasons. First, such benefits may not yet have vested where the military member must continue to serve until retirement. *See, e.g.*, *Lawson*, 454 F. Supp. 2d at 415 ("Despite Major Lawson's expressed intention, it would be imprudent and speculative for the Court to presume that he will remain with the Air Force to complete his twenty years of service [to guarantee eligibility for Tricare/CHAMPUS benefits]"); *Alexander v. United States*, 2016 WL 1733521, at *3 (W.D. Wash. May 2, 2016) (reasoning in part that "future TRICARE benefits are speculative, given that E.A.'s TRICARE benefits

will not vest unless Mr. Alexander remains in military service until 2023") (citing cases).[41]

Second, some cases reason that future TRICARE benefits are speculative because the program is subject to change in the future. *See, e.g.*, *Alexander*, 2016 WL 1733521, at *2 (rejecting *Mays* for future damages, reasoning in part that "if Congress changed TRICARE by drastically increasing the proportion of costs paid for by beneficiaries, rather than the government, as long as the government funding came from unfunded general revenue, TRICARE would not be a collateral source"); *Galbreath v. United States*, 2022 WL 18717579, at *2 (D. Haw. Feb. 17, 2022) ("[N]either the parties nor the Court can say with any reasonable certainty that the TRICARE program will continue for the balance of LG's life or that the benefits will never change."); *Brown v. United States*, 2020 WL 6811121, at *11 (S.D. Miss. May 13, 2020) ("[TRICARE] is subject to being modified or even eliminated by Congress at any time").

And in rejecting the argument that a plaintiff's eligibility for future veteran's medical benefits should offset future damages, the Seventh Circuit also reasoned that it "share[s] the reluctance of other courts addressing this issue to

[41] This distinction presumably would not apply here because D.G.W.'s father has already retired from the Army. But there was no specific evidence—only argument—regarding the status of TRICARE benefits for a retiree's dependents, both generally and specifically with D.G.W.'s benefits.

deny the plaintiff the freedom to choose his [future] medical provider and, in effect, to compel him to undergo treatment from his tortfeasor." *Molzof v. United States*, 6 F.3d 461, 468 (7th Cir. 1993).

The case law thus establishes that determining whether TRICARE might be a collateral source depends on several variables and assumptions. The court cannot make a ruling here as a matter of law that economic damages must always be offset by TRICARE benefits, especially based on the current record. The only evidence regarding TRICARE was testimony from D.G.W.'s parents, and it was mixed. *See, e.g.*, Tr. V.2-94 to 97 (Laura Warren testifying that TRICARE is not accepted by all healthcare providers, and does not pay for all of D.G.W.'s medications); Tr. V.5-17 to 18 (John Warren testifying that TRICARE covers "[j]ust about everything" that is not over-the-counter); Tr. V.5-19 to 20 (John Warren testifying that TRICARE does not cover co-payments for certain specialists); Tr. V.5-82 (John Warren testifying that he has "TRICARE Prime" as a retiree). There was, however, no evidence regarding the nature of TRICARE (or of its different types, such as "TRICARE Prime") and the distinctions in benefits or coverages, and which might apply for D.G.W. There was no evidence or discussion about "CHAMPUS," which apparently is a predecessor to TRICARE and which was analyzed in some of the case law. There was no evidence as to TRICARE's current sources of funding (i.e., whether from a "special fund" or

completely from general taxpayer funds), and whether premiums might be required for certain plans or benefits. There was no evidence, for example, from a TRICARE administrator explaining what D.G.W. might be or would be entitled to up until age 21 or 23 (as an incapacitated dependent). There was no specific evidence regarding co-payments or depths of coverage by TRICARE of relevant medications or providers as to D.G.W. Indeed, there was no evidence that Gattex specifically is or would be covered by TRICARE, or if a copayment would be required. There is no evidence itemizing which types of future costs would be fully paid and which would not be covered. Even if the court dug through TRICARE's regulations on its own, the court would not be able to make definitive conclusions without any factual support.

Given these gaps, the court easily concludes that Defendant has not met its burden to demonstrate an offset from future economic damages for TRICARE benefits.[42]

[42] Defendant also initially sought an offset for unspecified Social Security or Medicare benefits that D.G.W. might be entitled to in the future. *See* ECF No. 387 at PageID.6891−6893. It is not clear whether it still seeks such an offset. *See* ECF No. 440 at PageID.9256−9260 (proposed FOFCOL's arguing only that TRICARE benefits until D.G.W. reaches age 21 are not a collateral source). In any event, *Bynum* specifically decided under Hawaii law that "the collateral source rule applies to prevent the reduction of a plaintiff's award of damages to the discounted amount paid by Medicare/Medicaid." 106 Haw. at 89, 101 P.3d at 1157. *Bynum* thus precludes an offset for these other potential collateral sources.

## I. Supplemental Evidence and Argument

Near the end of trial, the court and counsel discussed the possible need for additional submissions regarding present value of damages. *See, e.g.*, Tr. V.4-140 to 141; Tr. V.5-152; Tr. V.8-134 to 138; Tr. V.9-45 to 46. The parties also discussed Dr. John Burke's submissions on lost earning capacity, and Jeffrey Meyers' opinion based on the life care plan by Fountaine. *See, e.g.*, Tr. V.4-139.

On August 11, 2023, the parties stipulated, among other things, that Plaintiffs' Exhibit 271—a report of August 4, 2022—contains Dr. Burke's opinions regarding the present value of the cost of future care of D.G.W. as set forth in Plaintiffs' Exhibit P-2. ECF No. 423 at PageID.7444. But this opinion is based on input that is no longer applicable, given the court's Findings and Conclusions regarding future damages. Specifically, the court adopted only part of Riddick-Grisham's assumptions or conclusions, and made other modifications to her life care plan. Therefore, the court DIRECTS the parties to meet and confer in good faith to attempt to agree to revised amounts that account for present value. If agreement is not possible, the court will allow the parties to file revised submissions regarding present value as was discussed at the end of trial. Specifically, the court will allow Plaintiffs to file a supplemental report from Dr. Burke, and Defendant may respond to those new calculations, if desired, with an opinion from Mr. Meyers. No other evidence will be allowed, such as

additional evidence regarding the number of hours of skilled nursing care required in the future. *See* Tr. V.9-46 (denying such a request from Defendant).

The parties also stipulated that Plaintiffs' Exhibit 272—a July 7, 2022, report from Dr. Burke—contains Dr. Burke's opinions regarding loss of earnings capacity of D.G.W. *See* ECF No. 423 at PageID.7444. This report offered different scenarios to compute D.G.W.'s lost earning capacity, depending on whether she is assumed to have attended four years of college, college from one to three years, or as a high school graduate. Pls.' Exh. 272 at 3a to 3c. The present value, as calculated in July 2022, ranges from $1,383,740.00 (with "work life expectancy" as a high school graduate) to $3,054,813.00 (to age 67 with four years of college). *See id.* The court's intention is to award lost earnings within these approximate ranges, but—again, as discussed by the parties at trial—the court requires further input.

The court recognizes the Defendant had not submitted its own evidence or opinion at trial regarding D.G.W.'s future lost earning capacity. But Plaintiffs also recognize that Dr. Burke's figures regarding future earnings loss did not use the correct methodology to account for income tax. *See Shaw v. United States*, 741 F.2d 1202, 1205 (9th Cir. 1984) ("Our cases have established basic steps for calculating pecuniary damages under the FTCA: (1) compute the value of the plaintiff's loss according to state law; (2) deduct federal and state taxes from

the portion for lost earnings; and (3) discount the total award to present value.") (citations omitted). Therefore, as Plaintiffs requested (*see* ECF No. 441 at PageID.9451), the court will allow Plaintiffs to file a supplemental declaration or report from Dr. Burke with revised calculations of future earnings loss, applying *Shaw*'s methodology. Defendant may file a response to Dr. Burke's submission after it is filed. If necessary, the court will notify the parties whether it would benefit from testimony from Dr. Burke.

The parties are DIRECTED to meet and confer with a goal of agreeing to present value and the scope of new briefing, along with a proposed briefing schedule. The court will schedule a status conference in about a week to discuss these outstanding issues.

## V. CONCLUSION

As summarized earlier, the court finds and concludes that the United States is liable to Plaintiffs D.G.W. and Laura Warren for negligence, negligent infliction of emotional distress, and loss of consortium under Hawaii law applicable under the Federal Tort Claims Act. As for D.G.W., the court finds general (non-economic) damages of $5,375.000.00 and special (economic) damages totaling $18,572,104.71. As for Laura Warren, the court finds general (non-economic) damages of $1,000,000.00, and special (economic) damages totaling $2,047,650.00. The court also will supplement these figures with

additional damages for lost earning capacity, ranging from approximately $1.3 to $3 million, depending on further findings after these additional submissions. These figures are subject to application of HRS § 663-15.5, and supplemental submissions regarding present value and loss of earning capacity. After deciding the outstanding issues, the court will issue Final Findings of Fact and Conclusions of Law and issue judgment in favor the Plaintiffs.

IT IS SO ORDERED.

DATED: Honolulu, Hawaii, April 17, 2023.

/s/ J. Michael Seabright
J. Michael Seabright
United States District Judge