



## Global Forensic Telemedicine (GiFT)

### Background and Statement of the Problem

Forensic pediatrics is the term given to the thorough medical assessment of child abuse victims. The field is evolving and rapidly developing standards due to the efforts of multidisciplinary professional associations such as APSAC (America Professional Society for the Abuse of Children.) Research in the field is exploding.

Despite increasing professional and media attention, the majority of healthcare providers chose not to deal with victims of child abuse in their practices. Doctors unwilling to subject themselves to intense legal scrutiny are reluctant to appear in court. One alternative is to refer alleged victims to children's hospitals and tertiary care centers specializing in child abuse and protection. The other is to ignore the problem.

TAMC and Kapiolani are tertiary care centers with trained physicians capable of performing forensic pediatric medical evaluations, however, these physicians lack the ability to readily consult with nationally recognized child abuse experts. Oceans are obstacles for children in more remote settings here in Hawaii and other Pacific Islands who require this specialized care. Evacuating these children for forensic examination potentially leads to further emotional trauma and financially is not feasible. More often than not, victims are only referred for life-threatening emergencies caused by child abuse. The majority of children with non-fatal injuries receive inadequate medical assessments or no medical examination at all.

Despite the sensitive nature of this work, patients who present for medical examination after disclosure of abuse, willingly place trust in their caretaker. They grant consent for medical treatment and have a strong desire to see justice served. They desire the best that medicine and technology can offer. This project is currently under Judge Advocate General (JAG) review due to legal implication of data that is transferred.

A computerized network for expert consultation in the field of forensic pediatrics would allow abuse victims in Hawaii and the Pacific Islands to remain where they feel safe and still undergo quality forensic examination. Trained providers at local image acquisition centers would perform medical exams. Images and information would then be sent to specialists via a secured web site for teleconsultation. A *confirmed* diagnosis of child abuse would empower law enforcement and legal agencies to enforce actions to protect the victim and assist the family in crisis.

The GiFT proposal could have a tremendous societal impact. We hope to demonstrate that telemedicine can be utilized for second opinions in the field of forensic pediatrics. We will also measure to what degree our expert second opinions corroborate initial assessments. Outcomes may be the catalyst to affect data-driven improvements in our current practice.

### Research Questions and Hypothesis

To determine whether or not the field of forensic pediatrics (child sexual abuse and child physical abuse) is a viable application for telemedicine technology. We will demonstrate that a diagnosis of child abuse can be confirmed via remote teleconsultation with experts in child abuse. Specifically, we will measure compliance between our local primary care managers and specialists based in Bethesda at the Armed Forces Child Protection Center (AFCCP.) We expect this operational model could, in the future, be utilized by primary care providers and allied health professionals investigating and evaluating cases of child physical and sexual abuse throughout Hawaii and the Pacific.

## **Project Description**

Objective 1 (Phase I) – Establish a computer network, incorporating photocolposcopy and digital imaging, to provide primary care physicians specialty teleconsultation with experts at AFCCP in Bethesda. These local telemedicine sites at TAMC, Pearl Harbor, and Kapiolani Women and Children's Hospital would serve as image acquisition centers for child abuse forensic evaluation.

Objective 2 (Phase I) – Develop standardized data collection software for forensic medical evaluation to act as a reporting tool and common language for healthcare providers accessing the system. Such a model would ensure that quality forensic examinations would be conducted at all participating locations, regardless of future providers' level of experience.

Objective 3 (Phase II) – Outreach computerized forensic consultative services to remote medical facilities evaluating victims of child abuse on Maui, the Big Island, and Guam, by establishing image acquisition centers at these locations.

Objective 4 (Phase II) – Further disseminate the forensic model and teleconsultative services to more distant sites in Japan, Korea and San Diego.

## **Proposed Project Timeline**

See attached

## **Performance Objectives/Deliverables**

1. A quarterly report will be generated by each project site manager and submitted to the primary investigator for summarization. The primary investigator will be responsible for briefing the PRPO as to project status. Reporting information will include, but necessarily be limited to:
  - a. Equipment status – modifications, acquisitions, performance
  - b. Technology status – installation, quality of image system, links
  - c. Prototype/model status – utilization of model, standardization
  - d. Training status – competencies, requirements
  - e. Troubleshooting – projected obstacles anticipated problems with implementation and process development.
2. Statistics will also be tracked to document improved access to care (III & IV) and improved medical standards of care for child victims (I & II) as a result of implementation of the computer model and web-based teleconsultation system. The primary investigator will supply the following information:
  - I. # child sex abuse cases recorded on computer model  
# child sex abuse cases referred for medical assessment
  - II. # child physical abuse cases recorded on computer model  
# child physical abuse cases referred for medical assessment
  - III. # child sexual abuse victims w/forensic exam computer model  
# child sexual abuse cases reported to FAP (or CWS for civilian sites)
  - IV. # child physical abuse victims w/forensic exam computer model  
# child physical abuse cases reported to FAP (or CWS for civilian sites)
3. Additionally, project site managers performing bimonthly peer review will track whether physician assessments of abuse are increasingly corroborated when information and data collection is standardized by use of a computer model. Baseline data will be recorded and compared with each bimonthly peer review process.

## **Budget**

See attached