

## Grant Application

1	<b>Project Title</b>	<b>Blood Product - Refrigeration</b>
2	Clinical or Operational Area	Surgery
3	Healthcare System	Kuakini Health System
4	Hospital or Entity Name	Kuakini Medical Center
5	Applicant Name	JayAnn Kau
6	Applicant Title	Patient Care Coordinator
7	E-mail Address	J.KAU@Kuakini.org
8	Telephone	8085479231
9	Mailing Address, City, State, Zip Code	347 North Kuakini Street, c/o Surgical Services, Honolulu, 96817
10	<b>Please list the names and titles/roles of the additional members of the project team:</b>	
	<b>Name:</b>	<b>Title/Role:</b>
	JayAnn Kau	Patient Care Coordinator
	Noel Curammeng	Manager BioMed
	Estrella Noguchi	Senior Medical Technologist, Blood Bank
	Terisa Garrett	Vice President, Clinical Services
11	Name of Senior Risk Management or Corporate Insurance Representative	Alice Loo
12	Mailing Address, City, State, Zip Code	347 North Kuakini Street, Honolulu, HI 96817

**13. The issue being addressed involves the following clinical areas: (Check all that apply)**

- Ambulatory Care
- Emergency Services
- Hospital/System-wide Focus
- Obstetrics/Perinatal
- Radiology/Imaging Services
- Surgical/Peri-Operative
- Other (Please specify)

Click or tap here to enter text.

**14. Briefly describe the project and its importance to the organization: (two paragraphs maximum, please attach any supporting documentation)**

Blood product supplies are at critical levels nationally and locally. On the Hawaii islands, blood product availability is dependent on the generosity of donors, quality of the product and its compatibility for use. The fine balances between supply and demand impacts our residents who require transfusions for chronic, emergent, and resuscitative treatments.

Blood Products used in situations for patients undergoing surgical procedures require products to be timely and available. Thus the assurances for quality controls are paramount in the quest for the recipients' safety. Kuakini's OR department works closely with the Blood Bank Department to maintain reliable quality checks for blood product handling. Quality Control of blood products carries quality checks from the time of securing the product from Blood Bank of Hawaii till the time of administration. Within the Surgery Dept, the Operating Room area houses a remote refrigerator which stores readily available blood products. To monitor the refrigeration storage temperature, a wheel chart system had been in use. The wheel chart monitored, tracked, and trended safe product storage. The wheel chart system had demonstrated to be cumbersome to use and therefore inconsistent to maintain by the staff. Efforts involved frequent competency checklists/ audits. Erroneous results were found when the wheel paper recording was mis-aligned, mis-calibrated. The wheel recording was difficult to view and interpret. The system was set with an audible alarm located in an isolated room separate from the immediate OR suites. The failure to adequately maintain quality conditions would lead to inaccurate monitoring, potential patient harm, and/or wastage of blood products. Patient harm events would be considered a reportable condition to the FDA and regulatory bodies. This patient safety project involved collaboration amongst multidisciplinary team/ departments for implementation.

**15. Describe how this project will improve patient safety or reduce the potential for liability. (one paragraph maximum)**

The wheel method was converted to the Hampshire Control Corporation system utilizing the three Probe Digital Temp Item F82106-03 , Temp Probe 1000-Ohm RTD Item A01007-25, and Temp Probe 1000-Ohm RTD Item A01007-50 . This project is in the last phase of verifying the new equipment and transitioning fully to the digital temperature recorded system. Biomed, Operating Room, and Lab have been heavily involved in the verification process. The new process provides 24/7/365 alarm notification for timely follow-up and prevention of wastage of blood products and therefore minimizing possible patient harm and hospital liability. In addition, the refrigerator had been relocated from an isolated area to a new location that allows increased visibility by all staff. The benefits of the project included reducing human factors/ errors, improved reliability and accuracy of temperature readings and allowed redundancy in the alerting personnel to respond to alarms.

**16. What metric(s) will be used to measure progress and determine the success of this project?? (one paragraph maximum)**

The new system was installed February 2024. Blood Product quality standards, wastage and its cost to the institution were monitored. The redundancy in monitoring ensured the products were never compromised at any time. Daily reports with 24 hourly temperature measurements, alarm notifications/conditions were reported by the Hampshire Control Monitoring System via email and its alarms were delivered to the hospital's phone operator. The system's verification of temperature accuracy was via a calibrated NIST thermometer which provided ongoing monitoring and a critical validation to the equipment. Since February, there were zero blood products wasted due to inappropriate refrigeration temperatures. Daily sensor temperature emails were auto generated and sent to key stakeholders for review. Emails were received 100% of the time. No alarms outside of the alarm testing were generated, thus indicating a stable storage environment. Monthly alarm checks have passed. Last, The Hampshire system no longer required for Staff to manipulate, calibrate, or quality test the wheel ( 30 min process), which allowed staff to focus on bedside care.

**17. Please describe the tangible results of the project that can be quantified and shared as best practices with other AEIX members? (one paragraph maximum)**

Thus far, the realized benefits of the project included reducing human factors/ errors, improved reliability and accuracy of temperature readings and allowed redundancy in the alerting personnel to respond to alarms.

- 18. Please provide a financial estimate of the project**      Other than personnel investment to implement the project, the cost of equipment for the surgical OR, one refrigerator was \$2050.
- 19. What is the expected timeframe for completion of this project?**      Estimate time February to September.
- 20. Is this project based on successful practices evaluated from literature or other healthcare providers?**  Yes  No
- 21. Is this project based on an original concept created by the project team?**  Yes  No
- 22. Do you have plans to publish the project results in a professional publication or networking forum?**  Yes  No
- 23. Is there anything else you'd like to share about this project?**  
Attachment 1: Wheel- Chart, 3 pages  
Attachment 2: Hampshire Controls Corporation, 3 pages

**Signatures required to submit this application**

**Primary Clinical Sponsor** (The individual responsible for monitoring progress of the project, submitting receipts and other documentation supporting the use of grant funds, and will provide a summary report of the project outcome)

<b>JayAnn Kau,</b>	<b>Patient Care Coordinator</b>	<b>8/15/2024</b>
Signature	Title	Date

**Alternate Clinical Sponsor** (The individual responsible for supporting the responsibilities of the Primary Clinical Sponsor, and assuming those responsibilities if the Primary Clinical Sponsor is unable to fulfill the requirements of the project)

<b>Terisa Garret</b>	<b>Vice President Clinical Services</b>	<b>8/15/2024</b>
Signature	Title	Date

**Senior Risk Management Leader**

<b>Alice Loo</b>	<b>Manager, Clinical Risk</b>	<b>8/15/2024</b>
Signature	Title	Date

**~~GEO or CFO~~ of Applicant's Healthcare Facility**

<b>June Drumeller</b>	<b>Executive Vice President</b>	<b>8/15/2024</b>
Signature	Title	Date

Thank you for completing the application. Please follow these next steps.

- Save this document in Word format and gather your supporting documentation.
- Forward the application and documentation to your senior risk management leader or corporate insurance representative. *They will need to complete and sign the Evaluation of Awards Application Form on the final page of the application before submitting it to American Excess Insurance by **Friday August 16, 2024.***



## Evaluation of Grant Application

The evaluation must be completed and signed by the senior risk manager or corporate insurance representative. Please evaluate the Award Application by indicating the best answer to the question.

1. **How will this project improve safety and/or reduce liability?**

- Little effect on safety and liability (1)
- Some improvement but metrics are not defined and/or it is not clear that measurable effect can be sustained (2)
- Strong effect with clearly defined metrics (3)

2. **What is the potential to share this project or practice with other AEIX members?**

- Little potential – i.e. *implementation requires major budgetary commitment, topic is highly specialized, and/or metrics are not clearly defined* (1)
- Some potential but process may be hard for another organization to implement, and/or its application may be limited  
- i.e. *major budgetary commitment, topic is highly specialized, and/or metrics are not clearly defined* (2)
- Strong potential for producing best practices (3)

3. **What level of impact will this project or practice have on the severity of risk exposure?**

- Little chance of impacting severity of risk but could address other issues (1)
- Some potential to impact risk exposure (2)
- Strong ability to impact severe malpractice exposure caused by significant risk events (3)

4. **What level of innovation best describes this project?**

- Project/practice is new to this organization and is based primarily on firmly established best practices (1)
- Project/practice was created primarily by applicants with some assistance from an outside vendor and contains well-established best practices with additional innovative features (2)
- Project/practice was created solely by applicants and could be included in established literature or industry best practices (3)

5. **Share your comments or recommendations.**

Alice Loo,	Manager Clinical Risk	8/15/2024
E-Signature	Title	Date
808-547-9231	a.loo@kuakini.org	
Phone	Email	

Send the completed application in Word format, supporting documentation, and signed evaluation to [ana\\_taylor@premierinc.com](mailto:ana_taylor@premierinc.com) by **Friday August 16, 2024**.

**Thank you for your submission. In continued pursuit of our mission and vision to partner with forward-thinking healthcare leaders, inspire innovation, and provide the leading pathway for managing risk, we may share your project with other members of American Excess. However, this project will not be shared outside of the American Excess Insurance membership without your prior consent.**