20th Annual Obstetrics, Gynecology & Women’s Health Resident and Fellow Research Day

University of Hawai‘i
John A. Burns School of Medicine
Department of Obstetrics, Gynecology & Women’s Health
TWENTIETH ANNUAL
Obstetrics, Gynecology & Women’s Health
Resident and Fellow Research Day

May 21, 2015
Waialae Country Club
4997 Kahala Avenue
Honolulu, Hawai`i
IVICA ZALUD, M.D., Ph.D.
PROFESSOR AND CHAIR
KOSASA ENDOWED CHAIR
DEPARTMENT OF OBSTETRICS, GYNECOLOGY AND WOMEN’S HEALTH
UNIVERSITY OF HAWAI’I
JOHN A. BURNS SCHOOL OF MEDICINE

We welcome you to the 20th Annual Department of Obstetrics, Gynecology and Women’s Health, John A Burns School of Medicine, University of Hawai‘i Research Day symposium. This event, created and organized through the combined efforts of our faculty, fellows and residents, was aimed to improve women’s health care. The objective of this Research Day is to provide a format for residents and fellows to present their current research and to acknowledge recently published and presented research by our faculty. The research projects that are being discussed today give our residents and fellows experience conducting and presenting original research and an opportunity to generate discussion about advancing women’s health care. The knowledge and skills our residents and fellows gain will assist them to critically analyze medical literature and determine optimum evidence based practice to benefit their patients. We believe this experience would encourage them to continue to explore basic science, translational and clinical research opportunities in the future.

A special thanks goes to the entire Research Day symposium Planning committee and to our distinguished visiting professor Barbara S. Levy, M.D. We hope that you will find this research symposium to be informative and thought-provoking. Please share your ideas about our department’s research day strengths with us and any suggestions for next year’s program.

We dedicate this year’s research day in celebration of the 50th anniversary of the John A. Burns School of Medicine.
Welcome to the 2015 University of Hawai‘i Department of Obstetrics and Gynecology Research Day. As in past years, we are highlighting the work of our PGY3 Obstetrics and Gynecology Residents and our Family Planning and Maternal Fetal Medicine Fellows. This year, we are pleased to include the addition of presentations by two researchers in our department, Jennifer Elia, M.P.H. who is earning her Doctorate in Public Health this semester and Kurt Yoshino, M.D. who will be joining our residency program in July. We would like to thank all of our research collaborators and mentors, our research judges, Barbara S. Levy, M.D., Tetine Lynn Sentell, Ph.D. and W. Steven Ward, Ph.D. as well as Krysten Kawamata, Ginny Kamikawa, and Karen Akiyama without whom our Departmental Research Day would not be possible. We would also like to thank all of the patients who contributed to the research presented. The high quality of medical care we enjoy today is built upon the efforts of medical researchers who have sought to use science to improve reproductive health care for all women.
BARBARA S. LEVY, M.D.
Vice President for Health Policy, Advocacy Division
at the American College of Obstetricians and Gynecologists (ACOG)

As Vice President for Health Policy, Dr. Levy:
* oversees ACOG’s legislative policy and regulatory affairs at the federal and state levels
* supervises ACOG’s Voluntary Review of Quality of Care, as well as the Safety Certification for Outpatient Practice Excellence for Women’s Health (SCOPE) program
* continues the College’s efforts on behalf of its Office of Global Women’s Health to promote national and international programs to improve women’s health worldwide.

Dr. Levy is from Washington state, where she has been in private practice, as well as the medical director of the Women’s Health and Breast Center and the medical director of women’s and children’s services for the Franciscan Health System in Tacoma. She has published or co-authored more than 65 studies and articles related to her primary research interests, including hysterectomy, endoscopic surgery, menopause and hormone therapy, osteoporosis, pelvic pain, surgical outcomes, and physician payment policy.

An ACOG member since 1984, Dr. Levy has served on several of its national committees and task forces. She is a member of many related medical organizations, including the American Society for Reproductive Medicine and the American Urogynecologic Society, and is a past president of the American Association of Gynecologic Laparoscopists. Dr. Levy has also been a consultant to and member of the US Food and Drug Administration’s Ob-Gyn Devices Panel.

Dr. Levy graduated magna cum laude with an undergraduate degree in psychology from Princeton University in NJ. She went on to obtain her medical degree from the University of California, San Diego, followed by an internship and residency in ob-gyn at the University of Oregon Health Sciences Center (now the Oregon Health & Sciences University) in Portland.

**Thursday, May 21, 2015 Wailae Country Club**
Ob/Gyn Research Day Lecture: “Vaginal Hysterectomy: Removing the Engine thru the Tailpipe”
7:30 a.m. - 1:00 p.m. Participants: Faculty, Private Attending Physicians, Residents and Medical Students

**Friday, May 22, 2015, Kapiolani Medical Center for Women & Children, The Irene I Halau Auditorium**
7:30 a.m. - 9:00 a.m., Morbidity and Mortality Conference
Participants: Faculty, Private Attending Physicians, Residents and Medical Students

9:30 a.m. - 11:30 a.m., Kapiolani Medical Center for Women & Children, Room 815
Review & Advise: Ongoing 2nd Year Residents Research Projects in Progress
Participants: Residents

12:00 p.m. - 2:00 p.m., Kapiolani Medical Center for Women & Children, Room 815
Maternal Fetal Medicine Fellowship Thesis Defense - Matthew Loichinger, D.O.,
“Systemic and Placental α-Klotho in the Last Trimester of Normal and Preeclamptic Gestations”

2:00 p.m. - 3:00 p.m. Kapiolani Medical Center for Women & Children, Room 815
Fellowship Lecture: “Mentorship and Career Developments”
Participants: Family Planning and Maternal Fetal Medicine Fellows
RESEARCH DAY PROGRAM
Thursday, May 21, 2015

7:30 a.m.  Registration and Continental Breakfast
8:00 a.m.  Welcome Remarks by Ivica Zalud, M.D., Ph.D., Professor & Chair, Kosasa Endowed Chair
8:10 a.m.  Greetings by Jerris R. Hedges, M.D., M.S., M.M.M., Dean and Professor of Medicine, John A. Burns School of Medicine
8:20 a.m.  Recognize Judging Panel, Fellow Moderators, Presentation Rules by Reni Soon, M.D., M.P.H.
8:25 a.m.  Introduction of Residents by Autumn Broady, M.D., M.P.H., Emma Kate Friedlander, M.D. and Kelly Yamasato, M.D.

TIME  PRESENTER            ABSTRACT
8:30 a.m.  Cori-Ann Hiral, M.D.  The Effect of the 2012 ASCCP Consensus Guideline for Abnormal Cervical Cytology on Resident Colposcopy Training
8:45 a.m.  Holly Bullock M.D., M.P.H  Access to Ulipristal Acetate in Hawaii: Is a Prescription Enough?
9:00 a.m.  Melissa Kauahara, M.D.  Interpregnancy Interval and Subsequent Pregnancy Outcomes After Dilation and Evacuation
9:15 a.m.  K. Nicole Scogin, M.D.  Risk Factors for Immature and Borderline Fetal Lung Maturity Testing
9:30 a.m.  Clyner Antalan, M.D.  The Effect of a Targeted Educational Activity on Resident In-Training Examination Scores
9:45 a.m.  Kanoe-Lehua de Silva, M.D.  Insurance Coverage for Emergency Contraception in Hawaii
10:00 a.m.  Introduction of Kurt Yoshino, M.D. by Reni Soon, M.D., M.P.H., Director of Resident Research
10:05 a.m.  Kurt Yoshino, M.D.  Comparison of Cesarean Delivery Rates in Urban and Rural Hospitals
10:20 a.m.  Introduction of Jennifer Elia, M.P.H. by Reni Soon, M.D., M.P.H.
10:25 a.m.  Jennifer Elia, M.P.H.  An Investigation of Pregnancy Intention Disparities, Measurement, and Meanings in Hawai‘i and Among Native Hawaiians
10:40 a.m.  Introduction of Matthew Loichinger, D.O., Maternal Fetal Medicine Fellow by Dena Towner, M.D.
10:45 a.m.  Matthew Loichinger, D.O.  The α–Klotho in the Last Trimester of Normal and Preeclamptic Gestations
11:00 a.m.  Introduction of Katherine Whitehouse, M.D., Family Planning Fellow by Bliss Kaneshiro, M.D., M.P.H.
11:05 a.m.  Katherine Whitehouse, M.D.  Randomized Double-Blinded Placebo Controlled Trial Comparing Dilation & Evacuation Outcomes With & Without Oxytocin Use
11:20 a.m.  Introduction of Barbara Levy, M.D. by Reni Soon, M.D., M.P.H.
11:25 a.m.  “Vaginal Hysterectomy: Removing the Engine thru the Tailpipe” by Barbara S. Levy, M.D.
12:15 p.m.  Buffet Lunch and Judges’ Deliberations

2015 JUDGING PANEL:

Barbara S. Levy, M.D.
Vice President for Health Policy
American College of Obstetricians and Gynecologists
(ACOG)

Tetine Lynn Sentell, Ph.D.
Associate Professor
Department of Public Health Studies
John A. Burns School of Medicine
University of Hawaii
Honolulu, Hawaii

W. Steven Ward, Ph.D.
Professor & Director
Institute for Biogenesis Research, Department of Anatomy, Biochemistry & Physiology,
Chief Research Division
Lakshmi Devi and Devraj Sharma Endowed Chair
Department of Obstetrics & Gynecology

12:45 p.m.  Awards Presentation - Barbara S. Levy, M.D. and Reni Soon, M.D., M.P.H.
Awards for “Most Outstanding Resident Research Project” and “Audience Choice”

1:00 p.m.  Closing by Mark Hiraoka, M.D., M.S.
Cori-Ann Hirai, M.D.

University of Hawai‘i, John A. Burns School of Medicine, Honolulu, Hawai‘i
Residency Honors/Awards:
* 2015-2016 Administrative Chief
* 2014-2015 District VIII Junior Oral Presenter
* 2013-2014 PGY2 Resident Excellence in Teaching Award
* 2012-2013 Resident Award for Exemplary Performance in Completion of Medical Records

University of Hawai‘i, John A. Burns School of Medicine, Honolulu, Hawai‘i
Honors/Awards:
* 2011-2012 Colin C. McCorriston, MD and Helen D. McCorriston Endowed Scholarship Recipient
* 2011-2012 Clerkship Honors in Obstetrics and Gynecology, Pediatrics and Psychiatry
* 2008-2009 John A. Burns Foundation Scholarship Recipient

B.S. in Biological Sciences, University of California at Irvine, Irvine, California

Hobbies & Interests: Dance and barrel, traveling

Place of Birth: Honolulu, Hawaii

Medical Interests: Critical care in Obstetrics, resident education, pediatric and adolescent gynecology

Future Plans Upon Graduation: Generalist on Oahu

Research Experience: Research Assistant, under the direction of Ivica Zalud, M.D. This study is entitled, A retrospective cohort study of gravid patients with low-lying placenta in the second trimester. “The primary objective of the study was to determine if women with a history of a low-lying placenta in the second trimester have increased blood loss at the time of delivery. My role in this study was data collection and data analysis. Data collection is currently complete and an abstract has been submitted for presentation. 07/2011


The Effect of the 2012 ASCCP Consensus Guideline for Abnormal Cervical Cytology on Resident Colposcopy Training

Cori-Ann Hirai, M.D.; Bliss Kaneshiro, M.D., M.P.H.; Mark Hiraoka, M.D., M.S.

Objective: The primary objective of this study was to determine the predicted number of colposcopies that would have been performed by residents at a single obstetrics and gynecology resident clinic if the 2012 ASCCP consensus guideline for abnormal cervical cytology were applied. The secondary objective was to determine the difference in the actual number of colposcopies that were performed before and after the ASCCP guidelines were released.

Design: Descriptive, retrospective chart review study

Materials and Methods: We conducted a two part study. The first part consisted of a chart review of all colposcopy cases between April 1, 2012 and March 31, 2014 at a single resident clinic. Data regarding patient age, cytology result, and colposcopy result were extracted. The 2012 ASCCP guidelines were then applied to all pre-guideline cases from April 1, 2012 to March 31, 2013 to determine whether colposcopy was still be indicated. These hypothetical results were then compared to the actual number of colposcopies performed between April 1, 2012 and March 31, 2013 to determine the predicted change in colposcopies performed. The second part of the study compared the actual number of colposcopies done during the one year pre-guideline period between April 1, 2012 and March 31, 2013 to the actual number of colposcopies performed during the one year post-guideline period between April 1, 2013 and March 31, 2014. Chi-Square Tests and Fisher’s Exact Tests were used to determine the significance of association for categorical variables. All analyses were performed with Statistical Package for the Social Sciences (SPSS) version 16.0 (Chicago, Illinois).

Results: Seventy-three colposcopies were performed from April 1, 2012 to March 31, 2013, the one-year study period prior to the release of the 2012 ASCCP guidelines. After applying the 2012 ASCCP guidelines, 38 of the 73 colposcopies were not indicated (52.1%). Seven interns rotate through colposcopy clinic per year, therefore the number of colposcopies per resident would have decreased from 10.4 to 5.0 had the guidelines been in effect. The largest reductions would have occurred in patients with ASCUS and ASCUS high risk HPV positive [44.4% (16/36) still indicated], LSIL [50.0%, (10/20) still indicated], and history of CIN II/III [0%, (0/8) still indicated] compared to HSIL and ASC-H [100%, (8/8) still indicated] (p=0.04). With the new guidelines in place, patients 24 years and younger (3.2%, 1/31) would have been less likely than patients ages 25 to 29 (83.3%, 15/18) and 30 to 64 (79.2%, 19/24) to require colposcopy (p<0.01).

Sixty-five colposcopies were actually performed from April 1, 2013 to March 31, 2014, the one-year time period following the release of the 2012 ASCCP guidelines. This resulted in an 11.0% reduction in the actual number of the colposcopies performed compared to the 52.1% projected reduction. Seven residents continued to rotate through this colposcopy clinic per year resulting in 9.3 actual post-guideline colposcopies per resident. Pre-guideline patients [mean age 28.5 (SD = 8.6)] were younger than post-guidelines patients [(31.7 (SD = 7.8)] (p = 0.02).

Conclusions: As indications for colposcopy decrease, fewer training opportunities are available for residents. In particular, residents will have less experience evaluating low grade cytologic abnormalities in younger women.

Support: None

Acknowledgements: Jeffrey Killeen, M.D.
Holly Noelle Bullock M.D., M.P.H.

University of Hawai‘i, John A. Burns School of Medicine, Honolulu, Hawai‘i
Residency Honors/Awards:
* 2014 PGY-2 Resident Excellence in Teaching Award
* 2013 Society of Family Planning Trainee Award

The Brody School of Medicine at East Carolina University Greenville, North Carolina
Honors Awards:
* 2012 Department of Bioethics and Interdisciplinary Studies Award
* 2011-Present Gold Humanism Honor Society
* 2011-2012 North Carolina Schweitzer Fellowship Program, Davidson, North Carolina
* 2009-2012 Leadership Fellow, Brody School of Medicine at East Carolina University, Greenville, North Carolina
* 2010 Elizabeth Karlin Campus Organizing Award, Medical Students for Choice National Chapter
* 2009 Baylor International Pediatric AIDS Initiative Visiting Scholar, Swaziland, Africa
* 2009 Medical Humanities Summer Fellow, Brody School of Medicine at East Carolina University, Greenville, North Carolina

M.A. in Medical Science, Boston University School of Medicine-Graduate School of Medical Science, Boston, Massachusetts

M.P.H. in Public Health, Boston University School of Public Health, Boston, Massachusetts

B.A. in Chemistry and Art History, University of North Carolina, Chapel Hill

Language Fluency (other than English): SiSwati, German

Hobbies & Interest: Hiking, travel, craft beer

Place of Birth: Blytheville, Arkansas

Medical Interests: Comprehensive reproductive health care, emergency contraception, health disparities, international public health

Future Plans upon Graduation: Fellowship in Family Planning

Research Experience: Principle Investigator under the direction of Janet Malek, Ph.D. Department of Medical Humanities, Brody School of Medicine at ECU, Greenville, NC Awarded stipend to conduct qualitative research with Swazi traditional healers, describing knowledge they want visiting doctors to have regarding local health beliefs and the role of traditional healers in the culture. 05/2008-08/2008

Consultant under the direction of Thea James, M.D., Violence Intervention Advocate Program, Boston Medical Center, Boston, MA Designed data collection system for initiative that assists victims of violence with their medical, psychological, and social issues. 04/2007-08/2007

Research Assistant under the direction of Monica Onyango, PhD, MPH, Department of International Health Boston University School of Public Health, Boston, MA Conducted literature review for “Nurse Midwives and Post Abortion care in Developing Countries: What is the Evidence?” an abstract presented at the 18th International Nursing Research Congress in Vienna, Austria July 2007. 02/2007-06/2007

Research Assistant under the direction of Patricia Mitchell Department of Emergency Medicine, Boston Medical Center, Boston, MA Conducted brief negotiated interviews encouraging increased seat belt use; work with Medical Examiner office to investigate correlation of gunshot fatalities and positive toxicology screens; completed comprehensive chart review of septic patients abstracting time to antibiotics, type of diagnostic procedures, and type of therapies initiated in the ED. 02/2006-08/2007


Access to Ulipristal Acetate in Hawaii: Is a Prescription Enough?


Objective: To determine pharmacy availability of ulipristal acetate, identify differences in ulipristal acetate availability stated to patients and physicians, and compare the availability of ulipristal acetate with that of levonorgestrel emergency contraceptive pills (ECP).

Design: Cross sectional study using a telephone secret-shopper methodology

Materials and Methods: A list of all unique retail pharmacies in Hawaii was generated from two online phonebooks and cross-referenced with websites of identified pharmacy chains. Pharmacies were excluded that did not serve the general public, were not accepting new patients, provided only specialty pharmaceuticals, had invalid numbers, or were unreachable after 3 attempts. Researchers called all pharmacies between December 2013 and July 2014, representing themselves as patients and physicians, using standardized semi-structured questionnaires. Descriptive statistics were performed to determine the percentage of pharmacies with ulipristal acetate and alternative levonorgestrel ECP available. Chi-square and Fisher's exact tests determined differences in responses received by patient and physician callers and differences between availability of ulipristal and levonorgestrel ECP.

Results: A total of 198 unique retail pharmacies were contacted statewide, with 188 reached by physicians and 193 reached by patients. Ulipristal acetate was immediately available at 2.6% of pharmacies, with no significant difference in availability reported to patients and physicians (p=0.5). When ulipristal was not immediately available, physicians were informed more frequently than patients that it could be ordered (30.77% vs. 19.1%, p=0.01). In contrast, 82.4% of pharmacies reported immediate availability of levonorgestrel ECP, with no significant difference in availability reported to patient and physician callers (p=0.1).

Conclusions: The availability of ulipristal acetate is more limited than that of levonorgestrel ECP in Hawaii. Even with a prescription, women face significant barriers to obtaining ulipristal acetate, the most efficacious dedicated emergency contraceptive pill available in the U.S. Our study highlights the need for systems-based interventions to increase availability.

Support: 2013 Society of Family Planning Trainee Grant
Melissa Kuwahara, M.D.

University of Hawai‘i John A. Burns School of Medicine, Honolulu, Hawai‘i
Honors/Awards:
* 2011 Clerkship Honors in Obstetrics & Gynecology
* 2011 Clerkship Honors in Family Medicine

B.S. in Biology Loyola Marymount University, Los Angeles, California
Honors/Awards:
* State Foundation on Culture and the Arts
* Grant: Master and Apprenticeship Grant for The Art of Hula Dance

Hobbies & Interests: I enjoy hiking, running, playing tennis, and spear fishing.

Place of Birth: Hilo, Hawaii

Medical Interests: Rural health care, minimally invasive surgery

Future Plans Upon Graduation: Plans after graduation are moving home, private practice.

Research Experience: Medical Student Investigator under the direction of G. Graham M.D., University of Hawaii John A. Burns School of Medicine, Maternal Hemoglobin A1c and Risk of Congenital Heart Disease in Pregestational Diabetics. 06/2011-

Medical Student Investigator under the direction of Bliss Kaneshiro, M.D., M.P.H., University of Hawaii John A. Burns School of Medicine Women’s Willingness and Ability to Palpate their IUD Strings. 03/2011

Student Investigator under the direction of Gary Kuleck, M.D. Loyola Marymount University, Los Angeles, California Research Project involving the sequencing of unknown microorganisms in the Ballona Wetlands. Techniques involved in the research involve amplification of 16s rRNA genes using PCR (polymerase chain reaction), separating amplified products by SSCP-PAGE(single-strand conformational polymorphism-polyacrylamide gel electrophoresis, and subjecting the DNA to sequencing. The BLAST program is used to search GenBank for DNA sequences to identify the bacterial species. 07/2006-12/2006
Interpregnancy Interval and Subsequent Pregnancy Outcomes After Dilation and Evacuation

Melissa Kuwahara, M.D.; Bliss Kaneshiro M.D., M.P.H.; Mary Tschann, M.P.H.; Kelly Yamasato, M.D.

**Objective:** There is little published on the ideal interconceptual period following a dilation and evacuation (D&E). The purpose of this study is to compare outcomes for pregnancies conceived <6 months after D&E with those >6 months after D&E.

**Design:** Retrospective cohort study

**Materials and Methods:** The University of Hawaii Abortion Database was used to identify women who underwent D&E between 14 and 26 weeks gestation and were readmitted with a subsequent pregnancy between 2008 to 2014. The first subsequent pregnancy after D&E was identified through International Classification Diagnosis-9 (ICD-9) codes. Additional demographic and clinical data were gathered through chart review. The primary outcome was the rate of preterm deliveries less than 37 weeks gestational age. Secondary outcomes included cervical insufficiency, placentation abnormalities, intrauterine growth restriction, postpartum hemorrhage, and mode of delivery. Chi-square test and student t-tests were used to compare categorical and continuous variables, respectively. To demonstrate a difference of 8.8% in preterm delivery with 80% power and a significance of 0.05, a sample size of 246 patients in each study arm was required.

**Results:** A total of 737 D&Es were performed during the study interval and 214 subsequent pregnancies were identified. Outcomes were available for 184 (86%) of these pregnancies, of which 90 (49%) resulted in live births >20 weeks gestation. Among the live births, 32 (36%) were conceived <6 months and 58 (64%) conceived > 6 months from the time of D&E. No differences in demographic or clinical variables were found between the two groups, nor between those who delivered preterm or term. The incidence of preterm delivery at less than 37 weeks gestational age was 9.4% (n=3) with an interpregnancy interval <6 months and 20.7% (n=12) with an interpregnancy interval > 6 months (p=0.168). No differences in preterm delivery below 34 weeks, postpartum hemorrhage, placentation abnormalities, intrauterine growth restriction, cervical insufficiency, or mode of delivery emerged between groups.

**Conclusions:** Adverse pregnancy outcomes were not higher in the group of women who became pregnant less than 6 months after D&E compared to those who waited longer than 6 months to become pregnant. Larger studies are needed to confirm these findings and provide evidence-based recommendations for women desiring pregnancy after D&E.

**Support:** OBGYN Department Pilot Study

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<th>Pregnancy Outcomes with Interpregnancy Interval ≤ 6 months and &gt; 6 months after D&amp;E</th>
<th>Interpregnancy Interval ≤ 6 months</th>
<th>Interpregnancy Interval &gt; 6 months</th>
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<td>3 (9.4)</td>
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<td>Cesarean Delivery</td>
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K. Nicole Scogin, M.D.

University of Oklahoma College of Medicine, Oklahoma City, Oklahoma
Clinical Campus, The University of Oklahoma College of Medicine-Tulsa
Medical School Honors/Awards:
* 2004 – 2008 Clerkship Honors in Obstetrics and Gynecology
* 2004-2008 Clerkship Honors in Family Medicine

BS Biology University of Arkansas, Fayetteville, Arkansas
Honors/Awards:
* 2008 – 2012 University of Arkansas Chancellor Scholar
* 2008 – 2012 Order of Omega, Greek Honor Society
* 2008 – 2012 Alpha Epsilon Delta, Pre-medicine Honor Society

Hobbies & Interests: I enjoy hiking, camping and other outdoor activities. I like to read memoirs by people I admire or want to learn from or understand. I also enjoy spending time with my mother, father and younger brother. Lastly, I follow Univ. of Arkansas Razorback sports closely!

Place of Birth: Tulsa, Oklahoma

Medical Interests: Infectious Disease, Medical History

Future Plans Upon Graduation: Generalist practice somewhere
Risk Factors for Immature and Borderline Fetal Lung Maturity Testing

K. Nicole Scogin, M.D.; Jeffery Killeen, M.D.; Marguerite L Bartholomew, M.D.; Pai-Jong Stacy Tsai, M.D., M.P.H.

Objective: Respiratory distress syndrome (RDS) remains a major cause of neonatal morbidity and mortality. One of the clinical tools used to assess the risk for this syndrome is fetal lung maturity testing. The objective of this study is to examine risk factors associated with immature and borderline fetal lung maturity testing, which can assist in identifying pregnancies at risk of RDS.

Design: This is a case control study examining mother and neonate pairs who had an amniocentesis from 2007 to 2013 for fetal lung maturity and delivered at Kapiolani Medical Center for Women and Children. Materials and Methods: Charts were collected based on mothers receiving amniocentesis for fetal lung maturity testing. The charts were then reviewed for maternal characteristics and delivery information. Perinatal complications were also collected. The data were analyzed using SAS statistical software (Version 9.3). Descriptive statistics were generated to compare demographic information. Bivariate analysis was performed using Chi-square examining women with immature/borderline testing versus mature testing. Lastly, multivariable logistic regression was used to control for confounders. Statistical significance was set at P < 0.05.

Results: A total of 386 mother-infant pairs were reviewed. The lamellar body testing was most commonly performed in the 35 to 38 weeks gestational age (90.3%). 52.6% of the results were mature. The most common medical condition was pre-gestational diabetes (17.7%). Gestational diabetes with diet control (A1) or with medication for control (A2) was noted in 10.9% and 10.4% of the women, respectively. Chronic hypertension was noted in 10.1%, while gestational hypertension (4.42%) and preeclampsia (3.4%) were less common. Obesity (BMI >30) was noted in 59% of the women. The most common diagnoses indicated as the reason for amniocentesis were diabetes (31.5%) and previous Cesarean delivery (11.7%). There were only 6 cases of RDS (0.2%).

The bivariate analysis noted no significant difference in testing results by maternal age (P=0.55). Obese women (BMI >30) were less likely to have immature/borderline testing (OR 0.60, CI 0.40-0.91, P=0.016) compared to normal/overweight women. Similarly women with pre-gestational diabetes were less likely to have immature/borderline fetal lung testing results compared to women without diabetes (OR 0.30, CI 0.16-0.55, P=<0.0001).

In the multivariable logistic regression model, women with pre-gestational diabetes remain significantly less likely to have immature/borderline results (OR 0.32, CI 0.16-0.62, P=0.0007) even after adjusting for gestational age, BMI, and maternal age.

Conclusions: Although diabetes has been previously identified as a risk factor for neonatal RDS, our study found a protective effect on fetal lung maturity testing. Therefore, testing for fetal lung maturity in the late preterm and early term, particularly in women with pre-gestational diabetes, may not be efficient nor economical given the low rates of immature test results and RDS overall.

Support: Funding for statistical support was provided by JABSOM Department of OB/Gyn, Division of Research

Acknowledgements: Sally Markee and Kurt Yoshino for assistance with data collection.
Clyner Antalan, M.D.

University of Hawai‘i John A. Burns School of Medicine, Honolulu, Hawai‘i
Honors/Awards:
  JABSOM Achievement Scholarship Recipient
  * 2009 Antone and Edene Vidinha Trust Scholarship Recipient
  * 2009 Philippine Medical Association of Hawaii Scholarship Recipient

B.S. in Psychology, Pacific Lutheran University, Tacoma, Washington

Language Fluency (other than English): Ilokano

Hobbies & Interests: Photography, cooking, gardening

Place of Birth: Bacarra, Ilocos Norte, Philippines

Medical Interests: Care for the underserved, rural medicine and minimally invasive surgery

Future Plans Upon Graduation: Work in Hawaii, hopefully return to my island home of Kauai

Research Experience: Research Assistant, Vaccine Trials, under the direction of Barbara Carste, MPH, Group Heath Cooperative Center for Health Studies, Seattle, Washington. Assisted in the study by recruiting and screening participants by phone, obtaining informed consent, and also training participants on how to record side-effects of vaccine trials on an electronic vaccine diary using a Palm Treo smartphone. Also, assisted in the laboratory with processing of participant blood samples for serum studies. 08/2006-07/2007

Research Assistant, under the direction of Tara Healthy, Group Heath Cooperative Center for Health Studies, Seattle, Washington. Consented and obtained biometrics data from research participants in the Group Health Team Health study looking at the effectiveness of using a multi-disciplinary team of physicians, nurses, and pharmacists in helping patients better control chronic illnesses such as diabetes and high blood pressure. 08/2006-07/2007

Research Assistant, eBP Study, under the direction of Linda Tyll, R.N. Group Heath Cooperative Center for Health Studies, Seattle, Washington. Recruited, obtained informed consent and gathered research data from participants on the electronic blood pressure “eBP” study which aimed to measure effectiveness of web-based health care using at-home blood pressure checks. The study utilized a multi-disciplinary team of physicians, nurses, and pharmacists whom the patient can access via the Group Health website to report their BP readings, and obtain answers to their questions. 08/2006-07/2007

Research Assistant, under the direction of Barbara Lucenko, Ph.D. Army Behavioral Health Technology Office, Tacoma, Washington. Searched for, collected, and indexed research articles to support various Army Behavioral Health Technology office studies on mental health issues in the military including suicide, PTSD, and depression at Madigan Army Medical Center located on Fort Lewis in Tacoma, WA. Assisted in providing various office and research support to the ABHTO research office. Assisted in Beta-testing and user-testing computer programs designed by ABHTO programming team for automation of behavioral health patient intake and medical records. Assisted in creating posters for professional presentations. 06/2004-08/2005


The Effect of a Targeted Educational Activity on Resident In-Training Examination Scores
Clyner Antalan, M.D.; Tod Aeby, M.D., M.Ed.; Mark Hiraoka, M.D., M.S.

Objective: To compare the examination scores before and after implementation of a study program based on high yield topics on the Council of Resident Education in Obstetrics and Gynecology (CREOG) In-Training Examination.

Design: We performed a prospective cohort study comparing resident CREOG scores in 2012, 2013, and 2014.

Methods: From academic year 2012 to 2014, obstetrics and gynecology residents at the University of Hawaii participated in a directed study program based on selected high yield topics from the CREOG Test Item Summary Booklet. Topics were considered high yield if more than 75% of the program residents answered the topic questions incorrectly during the immediately preceding CREOG examination administration. The program director assigned topics for each resident to research and present at monthly teaching sessions with the other residents. The presentations were then made accessible in a wiki website, which utilizes web-based technology allowing for all residents to collaboratively add to the content of each presentation. The intervention was discontinued in 2013 due to lack of resident interest. The primary outcome was the difference among CREOG In-Training Examination scores before the study program (2012), during the study program (2013), and after the study program was discontinued (2014). Paired student t-tests were used to compare the differences in level-specific standardized scores over the three separate CREOG examinations. Only scores of residents who sat for all three exams were included.

Results: Eleven residents were present during the duration of the study period and sat for all three CREOG in-training examinations. During the year of the educational activity, paired individual resident CREOG in-training exams scores increased significantly from the 2012 CREOG administration (mean = 194.7) to the 2013 CREOG administration (mean = 208.2), p=0.0001. The 2014 CREOG exam scores decreased after the discontinuation of the educational activity. When comparing CREOG scores during the pre-study period in 2012 (mean = 194.7) to after the educational activity was discontinued in 2014 (mean = 201.6), paired individual exam scores were not significantly different, p=0.051.

Conclusion: These findings demonstrate that the CREOG Test Item Summary Booklet can be used to effectively direct educational efforts resulting in improvements in CREOG examination performance.

Support: None

Acknowledgement: Special thanks to Lauren Jenkins, M.D. who championed the original CREOG Educational Project.
Kanoe-Lehua Eirinn Chiaki de Silva, M.D., M.S.

University of Hawai‘i, John A. Burns School of Medicine
Honolulu, Hawai‘i
Residency Honors/Awards:
2014 PGY-2 Resident Excellence in Teaching Award
2013 PGY-1 Resident Excellence in Teaching Award

University of Hawai‘i, John A. Burns School of Medicine
Honolulu, Hawai‘i
Honors/Awards:
* 2012 Po’okela No’eau Award Recipient
* 2009-2012 Kamehameha Schools Na Ho’okama Scholarship
* 2008-2009 Kamehameha Schools ‘Imi Na’aauo Merit Based Scholarship

M.S. in Human Nutrition, Columbia University in city of New York, New York, New York

B.A. in Sociology, University of Hawai‘i at Manoa, Honolulu, Hawai‘i
Honors/Awards:
2001 State Foundation on Culture and the Arts Grant: Master and Apprenticeship Grant for The Art of Hula Dance

Language Fluency (other than English): Native Hawaiian

Hobbies & Interests: Cooking, Baking, Sewing, Spend time with family

Place of Birth: Honolulu, Hawaii

Medical Interests: Native Hawaiian Health, Family Planning

Future Plans Upon Graduation: Work in Hawaii, hopefully with an interest in Native Hawaiian Health

Research Experience: University of Hawaii, Honolulu HI Insurance coverage for Emergency Contraception in Hawaii. Primary objective of this study is to identify insurance coverage among the major insurance carriers for three methods of emergency contraception. Secondary objectives are to identify accessibility of EC, barriers, and patient cost shares. Plan for submission 2015 North American Forum On Family Planning. 2015 - present.

Research Assistant under the direction of Bliss Kaneshiro University of Hawaii, Queens Medical Center/Kapi‘olani Medical Center for Women and Children “Third and Fourth Degree Perineal Injury After Vaginal Delivery: Does Race Make a Difference? Published March 2014, Hawaii Journal of Medicine & Public Health. A retrospective case-controlled chart review of 2467 records of vaginal deliveries in 2002. Due to the uniquely muti-cultural population of Hawaii and its respective patients, this study investigates the role of maternal ethnicity as a risk factor for third and fourth degree perineal lacerations during childbirth. 05/2011-2012

Lab Assistant and researcher under the direction of Dymapna Gallagher, Ed.D., Columbia University Medical Center, St. Luke Roosevelt Hospital, New York, New York. “Longitudinal Change in Total-Body Skeletal Muscle Mass In Pre-pubertal Tanner Stage 1 Children Over The Course of One Year” Ongoing, long-term study conducted with children of multi-ethnic and socioeconomic backgrounds. Follows skeletal muscle and visceral fat mass/deposition, nutrition, and obesity throughout their development and Tanner Stages. Conducted interviews, body fat and skeletal muscle assessments using various techniques (DEXA, MRI, ‘Bod Pod’, Underwater weighing, etc), data and statistical analysis. 09/2006-052007
Insurance Coverage for Emergency Contraception in Hawaii
Kanoe-Lehua E. C. de Silva, M.D., M.S.; Jennifer Salcedo, M.D., M.P.H., M.P.P.; Andrea Bucci, M.S.; Mary Tschann, M.P.H.

Objective: To describe insurance coverage for 3 methods of emergency contraception among the major insurance carriers in Hawaii.

Design: This is an observational, descriptive study.

Materials and Methods: The eight major insurance carriers in Hawaii have a total of 57 individual plans between them. The benefits for these 57 plans were reviewed online via consumer websites. The consumer hotlines for the eight major insurance carriers were then contacted once each by the two researchers. Following a standardized algorithm, the researchers inquired about EC coverage in the largest insurance plan for each carrier. The two research assistants each called the hotline individually for a total of two calls per insurance carrier. The data from the website review and two telephone calls were then entered into a REDCap database.

Our sample included all plans that meet the minimum requirements for benefits as described in Hawaii’s Prepaid Health Care Act, which are representative of the most common insurance coverage options in the islands. Coverage for emergency contraceptive method by insurance plan was graded as: 1) fully covered with no cost sharing or authorization; 2) covered with cost sharing; 3) covered with authorization required; 4) covered with cost sharing and authorization required; or 5) not covered.

Results: According to information found on publicly available consumer websites, 77% (44/57) of plans cover levonorgestrel (LNG) emergency contraceptive pills, but only 18.2% (8/44) of these do so without cost sharing. According to the websites, ulipristal acetate (UA) is a covered benefit for 66.7% of plans, but 97.4% of those plans impose some kind of cost sharing UA. Among the 52.6% of plans that list copper intrauterine device (IUDs) as a covered benefit, 62.8% limit coverage to one method per period of effectiveness, and only 52.5% provide full coverage without cost sharing. No information on prior authorization requirements for EC was found on any of the websites. Of the consumer hotlines contacted for the eight major carriers, description of EC coverage given by the hotline agents differed from information available on the consumer website among seven out of eight carriers (87.5%). Descriptions of coverage for the three EC methods differed for 6 of the 8 (75%) carriers between the first and second calls placed to the insurance carrier consumer hotlines.

Conclusion: While the majority of plans reviewed offer some coverage for emergency contraception, most have cost sharing and nearly all offer incomplete coverage of the three methods available. The prevalence of cost sharing provisions conflicts with the Affordable Care Act’s prohibition of these expenses for preventative health care, including contraceptives. The challenges encountered in trying to obtain accurate information regarding EC coverage could be a barrier to access for patients attempting to obtain EC.

Support: None
Kurt Davis Yoshino, M.D.

University of Hawaii, John A. Burns School of Medicine
Honolulu, Hawaii

Honors/Awards:
ACOG National Conference Travel Scholarship Recipient

B.S. in Biology, University of Hawaii at Manoa, Honolulu, Hawaii

Language Fluency (other than English): Basic Japanese

Hobbies & Interests: Playing sports and exercising, raising chickens, being a foodie, playing clash of clans

Place of Birth: Honolulu, Hawaii

Medical Interests: Obstetrics and Gynecology, sports medicine

Future Plans Upon Graduation: Private practice OB/GYN in Hawaii

Research Experience: Research Fellow under the direction of Mark Hiraoka, M.D. Hawaii Pacific Health, Honolulu, Hawaii. Worked on numerous research projects with various OB/GYN faculty and residents. List of projects and papers includes:

“Outcome of Patients Trying Labor After Two Prior Cesareans”, paper in preparation.

“Improving HPV and Papanicolaou cotesting screening rates for women 30 years and older at an OB/GYN Resident Outpatient Clinic”, paper in preparation.


Student Researcher under the direction of William Yarboroghuh, M.D. Queen’s Medical Center, Honolulu, Hawaii. Participated in a summer research internship for undergraduates interested in a career in medicine, which was funded by the Queens Medical Center. Conducted a retrospective analysis comparing robotic and open radical prostatectomies. 06/2009-08/2009

Student Research under the direction of David Shimizu, M.D. Queen’s Medical Center, Honolulu, Hawaii. Worked and participated in research in the department of pathology over the summer of 2008.

Publications/Presentations: Yoshino KD, Marzo C, Karimoto M, Kaneshiro B, Killeen J, Hiraoka M. “Improving HPV and Papanicolaou cotesting screening rates for women 30 years and older at an OB/GYN Resident Outpatient Clinic”. Accepted by the Hawaii Medical Journal for print in August 2015.


Comparison of Cesarean Delivery Rates in Urban and Rural Hospitals

Ann Chang, M.D., M.P.H.; Misty Pacheco Dr.P.H., M.H.A.; Kurt Yoshino, M.D.; Jill Miyamura Ph.D.; Jay Maddock Ph.D.

Introduction: Some studies have demonstrated hospital and geographic variation in cesarean delivery rates. Our objective is to compare primary cesarean delivery rates in urban and rural hospitals.

Methods: We examined all hospital admissions of women who delivered a singleton liveborn in the state of Hawaii from January 2010 to December 2011 using the Hawaii Health Information Corporation (HHIC) database. Women with a history of prior cesarean were excluded. Hospitals were divided into two categories: rural and urban. Primary cesarean delivery rates as well as common reasons for primary cesarean deliveries were examined.

Results: Of the 30,647 women who met criteria for our study, 7,717 (25.3%) delivered in rural hospitals. Women who delivered at rural hospitals had fewer risk factors for cesarean delivery, including advanced maternal age, preterm delivery, pre-gestational diabetes, and hypertensive disease. However, rural hospitals had a higher primary cesarean delivery rate of 21.1% compared to 15.3% in the urban hospitals (p less than .0001). Even after adjusting for maternal risk factors and common indications for cesarean delivery, women who delivered at rural hospitals had a more than two-fold risk for cesarean delivery, adjusted OR 2.46 (95% CI 2.26-2.70).

Conclusion/Implications: In a geographically isolated population, rates of cesarean delivery are significantly higher in rural hospitals. As reasons for this finding are unclear, this disparity should be investigated further.

Support: None

Acknowledgements: Ann Chang, M.D., M.P.H.
Jennifer Elia, M.P.H.

University of Hawai‘i at Mānoa, DrPH, Translational and Community-Based Research, anticipated August 2015

M.P.H. in Public Health, Yale School of Public Health, New Haven, Connecticut

B.A. with distinction in History of Science & Medicine, Yale University, New Haven, Connecticut

Hobbies & Interests: Travel, hiking, spending time with family and friends

Place of Birth: Honolulu, Hawai‘i

Medical Interests: Health disparities, family planning, Native Hawaiian health, international health

Future Plans upon Graduation: Publish or perish, pursue career in academia

Publications/Presentations:


Elia J, Soon R, Beckwith N, Enos R, Dye T. Community engagement in a research project to investigate pregnancy intention and contraceptive use among Native Hawaiians. He Huliau—Community-academic partnerships for Pacific health equity, Ko Olina, HI, September 2014. (Poster)


An Investigation of Pregnancy Intention Disparities, Measurement, and Meanings in Hawai‘i and Among Native Hawaiians

Jennifer Elia, M.P.H.

Objective: The purpose of this three-part dissertation was to examine unintended pregnancy in Hawai‘i, with a particular focus on Native Hawaiians, in terms of how different groups are affected (disparities), how it is assessed (measurement), and how it is conceptualized (meanings).

Design: Studies 1 and 2 were cross-sectional; Study 3 was descriptive.

Materials and Methods: Study 1 used data from the Hawai‘i Pregnancy Risk Assessment Monitoring System to examine disparities by maternal characteristics in pregnancy intention and contraceptive use. Study 2 examined three measures of pregnancy intention, including the London Measure of Unplanned Pregnancy (LMUP), in relation to demographic characteristics and pregnancy outcome through a survey of pregnant women. With eight focus groups of Native Hawaiian women and men, Study 3 qualitatively described factors related to pregnancy planning and decision-making within this community.

Results: Study 1: Almost half (46.1%) of all live births in Hawai‘i resulted from mistimed (34.9%) or unwanted (11.2%) pregnancies. Proportion of pregnancies unintended ranged from 29.7% among Japanese to 58.4% among Native Hawaiians. After adjustment for relevant other variables, Native Hawaiians were significantly more likely than other groups to describe their pregnancies as unintended. Of women not “trying” to become pregnant, 23.5% also said that their pregnancies were intended. Half (52.5%) of women not trying to get pregnant were not using contraception. Of women who reported unintended pregnancies for which they were not trying, 37.7% reported “I didn’t mind if I got pregnant” as a reason for contraceptive non-use.

Study 2: Overall about four in ten women reported their pregnancies as intended or planned using each of three measures. Using LMUP score categories, 37.9% of pregnancies were planned, 38.6% were ambivalent, and 23.6% were unplanned. Higher LMUP score category was associated with age, marital status, and parity in the ordinal regression analysis. LMUP scores did not differ significantly between Hawaiians and non-Hawaiians. Women seeking prenatal care reported more intended pregnancies than women seeking abortion. LMUP was better at predicting pregnancy outcome than modified NSFG categories or trying to get pregnant.

Study 3: Of 52 participants, median age group was 41-45 years and 30 (57.7%) were women. Ideal circumstances before childbearing and future aspirations were identified as motivations to avoid pregnancy; however, participants also discussed intergenerational and social norms of early childbearing. Pregnancy “just happens,” and participants perceived that unintended pregnancy was more common and accepted among Hawaiians than among other groups. Strong family support was cited as a reason to encourage women to continue an unplanned pregnancy. The Hawaiian cultural practice of hānai (informal adoption) was endorsed as another option that kept baby within the family. Abortion was generally viewed as an uncommon, undesirable last resort.

Conclusions: These three studies speak to the complexity of pregnancy intention and its importance to public health. Improved understanding of unintended pregnancy among Hawai‘i’s multiethnic population will help clinicians and public health professionals address the state’s high unintended pregnancy rate.

Support: Society of Family Planning Research Fund, DrPH Dissertation Research Fund

Acknowledgements: Mahalo to: my dissertation committee [Drs. Kathryn Braun (Chair), Cheryl Albright, Timothy Dye, Wei Zhang, and Paula Morelli]; Wai‘anae Coast Comprehensive Health Center, particularly the Community Advisory Group and Shelly Enos; Dr. Reni Soon and our focus groups team (Nina Beckwith, Maya Uemoto, Koa Robinson, Darrell Poole); UCERA OB/GYN clinics and staff; research interns Jenny Fujita and Chelsea Yin; Hawai‘i State Department of Health and Dr. Emily Roberson; other colleagues and friends who have supported me and helped with this research; and all the participants who provided their time and mana‘o for these three studies.
Matthew Henry Loichinger, D.O.

Obstetrics and Gynecology Residency, Medical College of Wisconsin, Milwaukee, Wisconsin

Edward Via Virginia College of Osteopathic Medicine, Blacksburg, Virginia
Honors/Awards:
* Graduated with Highest Honors
* 2012, 2011, 2009 Best Ob/Gyn Resident Teacher Award
* 2012 Excellence in Teaching Award by Medical Students
* 2009 Standing Ovation Award

B.S. in Biomedical Biology and Pre-Medicine Major with General Chemistry Minor, University of Wisconsin-La Crosse, La Crosse, Wisconsin

Hobbies & Interests: My son, Owen. I also love sports, especially Wisconsin sports teams. He also spends time surfing, hiking, playing the guitar, and now the ukulele too!

Place of Birth: Oconomowoc, Wisconsin

Medical Interests: Pre-Eclampsia, Preterm Birth Prevention, Medical Complications of Pregnancy

Future Plans Upon Graduation: Sadly, I will be moving on to Minneapolis, Minnesota to join the Minnesota Perinatal Physicians group with Allina Health. This is a large specialty group that practices the full scope of Maternal-Fetal Medicine in the greater Twin Cities area.


The α-Klotho in the Last Trimester of Normal and Preeclamptic Gestations
Matthew H. Loichinger, D.O.; Dena Towner, M.D.; Karen Thompson, M.D.; Hyeong Jun Ahn, Ph.D.; Gillian Bryant-Greenwood, Ph.D.

Objective: α-klotho is an anti-aging protein, which may be important in preeclampsia (PE). There have been no studies measuring soluble maternal and placental α-klotho in a single set of patients. Our aim was to measure the α-Klotho system (α-Klotho, ADAM17, FGFR1) in normal gestation and in a set of patients with preeclampsia over the last trimester of pregnancy. We also sought to confirm that the placenta expresses ADAM 17 and the FGFR1, and to extend this to the fetal membranes of the same patients. From these studies, we hoped to determine whether the placenta makes a significant contribution to the maternal circulating α-Klotho in late gestation in normal pregnancies or in patients with preeclampsia. Finally, because α-Klotho is a molecule with an anti-aging function, we attempted to link its maternal plasma and/or placental levels with the histological evidence of placental accelerated villous maturation (AVM).

Materials & Methods: 67 women (36 PE and 31 controls) were recruited. Maternal blood was collected fresh at delivery and stored at -80°C until analysis. Placenta and fetal membranes were fixed in neutral-buffered formaldehyde for 72 hours, and stored in 70% ethanol until embedded in paraffin. Plasma levels were measured by enzyme-linked immunoabsorbent assay and quantitative immunohistochemistry used for placenta and fetal membranes. Group comparisons between controls and PE were made by Fisher’s exact test for categorical variables and Kruskal-Wallis test for continuous variable. Linear regression models were used for gestational age relationships. Two sided p-value of <0.05 was used to determine statistical significance.

Results: We confirmed α-klotho, ADAM17 and FGFR1 in syncytiotrophoblast and extended this to cytotrophoblast of the fetal membranes. In the last trimester, placental levels in controls all significantly decreased (p=0.04, p=0.003, p=0.03 respectively) with increasing gestational age. However, in PE levels of the α-klotho system remained elevated. Maternal plasma α-klotho and placental ADAM 17 were higher in PE (p=0.01 and p=0.006 respectively) while FGFR1 was lower compared to controls (p=0.02). Maternal plasma α-Klotho levels were significantly lower (p=0.01) in patients with preeclampsia when AVM was present compared to those when it was absent.

Conclusion: More α-klotho may be shed from syncytiotrophoblast in PE, protecting the maternal vasculature and syncytiotrophoblast itself (from AVM), while its action in placenta appears to be reduced.

Support: The funding for this study was provided by the University of Hawaii John A. Burns School of Medicine Department of Obstetrics, Gynecology, & Women’s Health. Statistical analyses were supported in part by grants from the National Institute of Minority Health and Health Disparities (U54MD007584, G12MD007601); and the National Institute of General Medical Sciences (P20GM103466).

Acknowledgements: The authors acknowledge Ms. Sandra Yamamoto for her assistance in the laboratory aspects of this study. We also acknowledge all patients who donated their time and samples for this study.
Katherine C. Whitehouse, D.O.

Obstetrics and Gynecology Residency, Baylor College of Medicine, Houston, Texas
Honors/Awards:
* 2012, 2011 Resident Teaching Award
* 2012 Resident Research Day, 2nd Place Award

University of Medicine and Dentistry of New Jersey-School of Osteopathic Medicine, Stratford, New Jersey

M.S. in Clinical Science Research, University of Hawaii, John A. Burns School of Medicine, Honolulu, Hawaii
Honors/Awards:

B.S. in Neurobiology and Physiology, University of Maryland, College Park, Maryland
Honors/Awards:
* 1993-2003 Presidential Scholarship
* 1999-2001 University of Maryland, College Park Scholars, Life Science Program

Language Fluency (other than English): Spanish: basic medical conversation French: basic conversation, reading and writing

Hobbies & Interests: Hiking, cycling, crossfit, baking, women’s rights

Place of Birth: Newton, New Jersey

Medical Interests: Abortion care

Future Plans Upon Graduation: I will be working as a Medical Officer at the World Health Organization (Geneva, Switzerland).


A Randomized Double-blinded Controlled Trial Comparing Dilation and Evacuation Outcomes With and Without Oxytocin Use

Katherine Whitehouse, D.O.; Mary Tschann, M.P.H.; James Davis, Ph.D.; Elizabeth Micks, M.D., M.P.H.; Reni Soon, M.D., M.P.H.; Jennifer Salcedo, M.D., M.P.H., M.P.P.; Alison Edelman, M.D., M.P.H.; Bliss Kaneshiro, M.D., M.P.H.

Background: Hemorrhage, the most common complication of dilation and evacuations (D&E), is estimated to occur in 0.8% to 2.1% of procedures. The rate of hemorrhage increases with gestational age, affecting up to 6.3% of D&Es performed above 18-weeks gestation. Many D&E providers report using prophylactic uterotonics, like oxytocin, to minimize blood loss and decrease the risk of hemorrhage. Literature to support this practice is scarce and physiological evidence suggests synthetic oxytocin is unlikely to affect bleeding prior to the third-trimester of pregnancy.

Objectives: To determine whether routine use of intravenous oxytocin will affect the rate at which providers must intervene to control excessive blood loss (yes/no) at the time of D&E. Secondary outcomes include measured blood loss, complication rates, procedure length, and postoperative pain and satisfaction.

Methods: A randomized, double-blind, placebo-controlled trial enrolling participants at two sites, the University of Hawaii and the University of Washington. Women undergoing D&E at 18 to 24 weeks gestation are eligible to enroll. Exclusion criteria include uterine anomalies, multiple gestation, use of anticoagulants, chorioamnionitis, bleeding disorders, placenta accreta and preoperative misoprostol use. Subjects are randomized to receive a bolus of 500-ml of normal saline with 30-units of oxytocin or 500-ml of normal saline alone at the start of the procedure. Interventions for bleeding are standardized and include bimanual massage, uterotonics, balloon tamponade, re-aspiration, or surgery.

Our sample size of 166 (83 in each group) will detect a 15% difference in the need to intervene for excess bleeding with 80% power and two-sided alpha of 0.05. Our primary outcome will be analyzed using a chi-squared test. For secondary outcomes, chi-square tests will be used to compare categorical variables and student’s t-tests to compare continuous variables.

Results: Recruitment is underway at University of Hawaii and University of Washington, with total recruitment of 26 subjects at the time this abstract was published. The results will provide evidence for or against the routine use of oxytocin as a means to decrease excess bleeding at the time of D&E and will provide evidence-based abortion guidance.

Support: Society of Family Planning

Acknowledgements: Fellowship in Family Planning, Leilani Manglicmot, M.S., Sally Friend, M.S., EmmaKate Friedlander, M.D., Michael Savala, M.D., Sarah Prager, M.D., M.A.S., Jennifer Elia, M.P.H., Krysten Kawamata, and the staff of our clinical facilities.


Selected Forthcoming Publications


9. Bunga J, Collier E, Brizzolara S, Wright C. Determining Cell Surface Receptors and Subsequent Cell Signaling of the Uterosacral and Round Ligaments from Non-POP Hysterectomy Patients. Poster presented at: JABSOM Biomedical Symposium; 2014 Apr 3-4; Honolulu, HI.


23. Guo M, Bermudo V, Kabua A, Chang A, Miyamura J, Sentell T. Key factors in women’s decisions about where to give birth: Considering diverse perspectives to engage patients in quality reporting efforts. Poster presented at: Academy Health Annual Research Meeting; 2014 June; San Diego, CA.


34. **Loichinger M, Goh W, Bryant-Greenwood G.** Placental α-Klotho Across Normal Gestation. Poster presented at: JABSOM Biosciences Symposium; 2014 Apr 3-4; Honolulu, HI.

35. **Nagamine K, Cheung T, Hiraoka M, Shimizu D, Tauchi-Nishi P.** The Utility of Cell Blocks from SurePath Pap Tests in the Confirmation of High Grade Dysplasia. Poster presented at: American Society for Colposcopy and Cervical Pathology Biennial Scientific Meeting; 2014 Apr 9-12; Scottsdale, AZ.


40. **Soon R, Elia J, Beckwith N, Kaneshiro B, Dye T.** Understanding pregnancy intention and contraceptive decision-making among Native Hawaiians: Key informant interviews. Poster presented at: He Huluia: Community-academic partnerships for Pacific health equity; 2014 Sept; Kapolei, HI.


42. **Sridhar A, Salcedo J, Gipsion J.** Abortion information in mobile health applications: what is out there? Poster presented at: National Abortion Federation 28th Annual Meeting; 2014 Apr; San Francisco, CA.


Selected Future Presentations


5. de Silva K, Salcedo J, Bucci A, Tschann M. Insurance Coverage for Emergency Contraception in Hawaii. Accepted for poster presentation at the North American Forum on Family Planning; 2015 Nov; Chicago, IL.

6. Tschann M, Salcedo J, Soon R, Kaneshiro B. Characteristics and contraceptive practices of patients seen for repeat abortion at the University of Hawaii Women’s Options Center. Accepted for poster presentation at the North American Forum on Family Planning; 2015 Nov; Chicago, IL.

7. Whitehouse K, Tschann M, Davis J, Soon R, Salcedo J, Kareshiro B. Association between oxytocin use during dilation & evacuation and estimated blood loss. Accepted for poster presentation at the North American Forum on Family Planning; 2015 Nov; Chicago IL.
Publications of Resident Research Projects  
Organized by Year of Presentation at Departmental Research Day

2012

2011

2010


2009


2008


2007


2006


2005
Publications of Fellow Research Projects
Organized by Year of Presentation at Departmental Research Day

2014

2013

2012

Presentations of Fellow Research Projects
Organized by Year of Presentation at Departmental Research Day

2014


Tsai PJS, Davis J, Bryant-Greenwood G. Systemic and Placental Leptin and Leptin Receptor in Pregnancies Associated with Obesity. Poster presented at: JABSOM Biosciences Symposium; 2014 April 3-4; Honolulu, HI.


2013

2012
Goh W, Yamamoto S, Thompson K, Bryant-Greenwood G. Expression of Relaxin (RLN) and its receptor (RXFP1) in Placenta Accreta. Poster Presented at the 32nd Annual SMFM The Pregnancy Meeting. February 2012, Dallas, TX.
2010

Adrian C, Kim I, Chu V, Kaneshiro B. Assessment of the Accuracy of information on emergency contraception on the internet. ACOG Districts VII, VIII, IX, XI Combined 2010 Annual District Meeting; 2010 Oct 14-16; Maui, HI.


2009


Kaneshiro B, Barrett M, Takekawa S, Soon R. Knowledge of Intrauterine Devices in a Diverse Adolescent Population. 12th RCMI International Symposium on Health Disparities; 2010 Dec 6-9; Nashville, TN.

2008

Chang AL. The Prevalence of Gestational Diabetes among Micronesians in Honolulu, Hawaii. He Huliau Conference; 2009 Feb 5; Costa Mesa, CA.


Sueblinvong T, Carney ME, Sing C, Kaneshiro B. Prediction of Metastatic Disease of Endometrial Carcinoma using Preoperative Endometrical Biopsy or Curetage. Society of Gynecologic Oncologists Annual Meeting on Women’s Cancer. 2009 Feb 5; San Antonio, TX.

2006


Willey A, Davis J, Kim D. Risk Factors Associated with Striae Gravidarum. American College of Obstetricians and Gynecologists Annual Clinical Meeting; 2007 May 5-9; San Diego, CA.

2005

Kaneshiro B. Effect of delivery route on the natural history of cervical dysplasia. American College of Obstetricians and Gynecologists District VI, VIII, XI Annual Meeting. 2004 Sep 17-19; Salt Lake City, UT.


Presentations of Resident Research Projects
Organized by Year of Presentation at Departmental Research Day

2014


2013


2012

Gaspar-Oishi MA, Aeby T. Analysis of the Efficacy of Sodium Hyaluronate-Cellulose Barrier in Repeat Cesarean Deliveries. Donald F. Richardson Memorial Prize. Oral presentation at: American College of Obstetricians & Gynecologists Annual Clinical Meeting; 2014 Apr 27-29; Chicago, IL. Obstet Gynecol. 2014 May;123:4S.

Gaspar-Oishi MA, Aeby T. The Effect of Sodium hyaluronate-carboxymethylcellulose membrane (Seprafilm®) on operative time in repeat cesarean section. Oral presentation at: American College of Obstetricians & Gynecologists Annual District Meeting for Districts V, VI, VIII, IX Meeting; 2013 Sept 26-28; Maui, HI.


2011
PAST RESEARCH DAY GUEST SPEAKERS

2014  Daniel M. Breitkopf, M.D., Associate Professor & Ob/Gyn Residency Program Director, Department of Obstetrics & Gynecology, Mayo Clinic, Rochester, Minnesota, “Hysteroscopy and Abnormal Uterine Bleeding: What’s New?”

2013  Aaron B. Caughey, M.D., M.P.A., M.P.H., Ph.D., Professor and Chair, Department of Obstetrics & Gynecology, Oregon Health & Science University, Portland, Oregon, “The Cesarean Epidemic: Etiologies, Outcomes, & Potential Solutions”

2012  Deborah A. Wing, M.D., Professor of Clinical Obstetrics & Gynecology, Director, Division of Maternal-Fetal Medicine & Director, Maternal-Fetal Medicine Fellowship, University of California, Irvine, “Updates in Cervical Ripening and Labor Induction”

2011  Andrew Berchuck, M.D., Director of Gynecologic Cancer Research, Professor of Gynecologic Oncology, Department of Obstetrics and Gynecology, and is Co-Director of the Duke Comprehensive Cancer Center Breast/Ovarian Cancer Program, Duke University Medical Center, Durham, North Carolina, “Prospects for Individualized Treatment and Prevention of Ovarian Cancer”

2010  Leo R. Braacazio, M.D., FACOG, Vice Chair for Patient Safety & Quality and Associate Professor, Duke University Department of Obstetrics and Gynecology, Duke University Medical Center, Durham, North Carolina, Medical Director at Duke University Hospital Labor and Delivery, Durham, North Carolina, “The Ideal Cesarean Section Rate”

2009  Ruth Word, M.D., FACOG, Professor of Obstetrics and Gynecology & Director, Urogynecology Research and the Human Biologic Fluid and Tissue Acquisition Core Laboratory, University of Texas Southwestern Medical Center, Dallas, Texas, “New Insights into the Pathophysiology of Pelvic Organ Prolapse”

2008  Charles W. Weems, Ph.D.  Professor of Animal Science, CTAHR Animal Reproduction Research Laboratory, College of Tropical Agriculture and Human Resources, Department of Human Nutrition, Food & Animal Science, University of Hawaii, “Establishment of Pregnancy”

2007  Robert Taylor, M.D., Ph.D.  Professor, and Vice Chair for Research, Department of Gynecology and Obstetrics, and Professor, Department of Cell Biology, Emory University School of Medicine, “Cellular and Molecular Pathophysiology of Preeclampsia”

2006  Professor Warwick Giles, MB. BS(NSW), FRACOG, Ph.D(Syd.) DDU.CMFM  Conjoint Professor, The University of Newcastle, Callaghan, NSW, Australia and Director, John Hunter Hospital, Newcastle NSW, Australia, “Fibronectin and other Markers of Preterm Delivery”

James M. Roberts, M.D.  Senior Scientist and Director, Magee-Women’s Research Institute, Professor and Vice Chair (Research), Obstetrics, Gynecology and Reproductive Sciences, University of Pittsburgh, “Whither Toxaemia”

2005  Robert B. Jaffe, M.D., M.S.  Fred Gellert Endowed Chair in Reproductive Medicine & Biology, University of California, San Francisco, “Angiogenesis and Ovarian Cancer”

2004  Diana W. Bianchi, M.D.  Chief of the Division of Genetics in the Department of Pediatrics at Tufts-New England Medical Center, Natalie V. Zucker Professor of Pediatrics and Obstetrics and Gynecology “Circulating Fetal Nucleic Acids in Maternal Blood: Origin and Diagnostic Applications”

2003  Roy M. Pitkin, M.D.  Former Editor, Obstetrics and Gynecology, Clinical Obstetrics and Gynecology, Emeritus Professor and Chairman of Obstetrics and Gynecology, University of California, Los Angeles School of Medicine, “Obstetric-Gynecologic Research, 1953 - 2002”

2002  James R. Scott, M.D.  Professor, University of Utah, Department of Obstetrics and Gynecology, Editor of Obstetrics & Gynecology, Co-Editor of Clinical Obstetrics and Gynecology, “Pregnancy in Transplant Patients”

2001  William Droegemueller, M.D.  Clinical Professor and Chairman Emeritus, University of North Carolina, Department of Obstetrics and Gynecology, Associate Editor of Obstetrics and Gynecology, “Don’t Look Back...Someone is Gaining on You. A Discussion of Mentoring”

2000  Robert Israel, M.D.  Chief of Gynecology, University of Southern California, Department of Obstetrics and Gynecology, Associate Editor of Obstetrics and Gynecology, “Endometriosis: A Continuing Conundrum”

1999  David A. Grimes, M.D.  Vice President of Biomedical Affairs Family Health International, Associate Editor, Obstetrical and Gynecological Survey, Contraception, Former Professor and Vice-Chairman, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, “Evidence-based Medicine in Obstetrics and Gynecology: the Paradigm for the Next Century”
PAST RESEARCH DAY GUEST SPEAKERS

1998 Roy M. Pitkin, M.D. Editor, Obstetrics and Gynecology. Editor, Clinical Obstetrics and Gynecology. Former Professor & Chairman of Obstetrics & Gynecology, University of California, Los Angeles School of Medicine, "The Peer Review System in Medical Publishing"

1997 John T. Queenan, M.D. Professor and Chairman of Obstetrics and Gynecology, Georgetown University School of Medicine & Chief of Georgetown University Hospital since 1980. Editor-in-Chief of Contemporary Obstetrics and Gynecology

1996 Moon Kim, M.D. Richard L. Neiling Chair, Professor & Vice-Chairman of Obstetrics and Gynecology, Ohio State University, University Medical Center, Associate Editor, The American Journal of Obstetrics and Gynecology, "Fertility and Environment"
PAST RESEARCH DAY AWARD RECIPIENTS

First Place Award

2014 Michelle Tsai, M.D. “Oxidative Stress & Compensatory Anti-Inflammatory Mechanisms in the Placentas of Gravid Marijuana Smokers”

Audience Choice Award

2014 Michelle Tsai, M.D. “Oxidative Stress & Compensatory Anti-Inflammatory Mechanisms in the Placentas of Gravid Marijuana Smokers”

Most Outstanding Award

2013 Jaimie M. Johnson, M.D. “Men’s Attitudes, Beliefs, & Roles in Pregnancy & Childbirth: An Ethnographic Study in Nepal”
Scott A. Harvey, M.D., M.S. “Choice of Effective Contraception Among Native Hawaiian Women”

Audience Choice Award

2013 Lynne Y. Saito-Tom, M.D., M.S. “Intrauterine Device Use in Overweight and Obese Women”

Best Overall Research Project Award

2012 Justia C. Bohrer, M.D. “Obstetrical Outcomes in Patients with Low-lying Placenta in the Second Trimester”
2011 Judy A. Honegger, D.O. “Rates of Elective Induction Between 34 0/7-38 6/7 Weeks Gestation at Kapiolani Medical Center for Women and Children”
2010 Pai-Jong Stacy Tsai, M.D., M.P.H. “Racial Differences in Perineal Body Length in First Stage of Labor”
2009 Shera L.C. Sugiyabashi, M.D. “Effectiveness of Examining Amniotic Fluid Arborization in Diagnosing PPROM in Early Pregnancies”

Most Potential to Impact Clinical Practice Award

2012 Maxine Karimoto, M.D. “Improving HPV and Pap co-testing screening rates for women 30 years and older in the Kapi‘olani Women’s Obstetrics and Gynecology Outpatient Clinic”
2011 Kassondra S. Grzankowski, M.D. “Microsatellite Instability in Endometrial Cancer in Patients with HNPCC”
2010 Celeste S. Adrian, M.D. “Assessment of the Accuracy of Information Regarding Emergency Contraception on the Internet”
2009 Karen A. Soules, M.D. “Does Cell Phone-Bluetooth Technology for the Outpatient Management of Diabetes in Pregnancy Improve Patient Compliance and Satisfaction when Compared with Traditional Methods of Blood Sugar Reporting?”

Best Study Design Award

2011 Lauren Millet, M.D. “Rates of Bacteriuria in Laboring Women with Epidural Analgesia-Continuous vs Intermittent Bladder Catheterization”
2010 Pai-Jong Stacy Tsai, M.D., M.P.H. “Racial Differences in Perineal Body Length in First Stage of Labor”
2009 Maria G. Barrett, M.D. “Knowledge and Misconceptions of Intrauterine Devices in Adolescent Patients”

First Place Award

2008 Chrystie K. Fujimoto, M.D. “The Effect of Methamphetamine Use on the Placenta”
2007 Aya Sultan, M.D., Ph.D. “Association of Ovarian Cancer and Atypical Endometriosis”
2006 Reina M. Ahern, M.D. “Knowledge and Attitudes of Emergency Contraception in Hawaii’s Adolescents”
Renee L. Sato, M.D. “Antepartum Seafood Consumption and Mercury Levels in Newborn Cord Blood”
2005 Reni A. Y. Soon, M.D. “Comparison of Active Phase and Second Stage of Labor in Adolescents and Adults”
2004 Scott D. Eaton, M.D. “EKG Changes Occurring with Magnesium Administration for Preterm Labor”
2003 Sapna M. Janas, M.D. “Rate of Complication from Third Trimester Amniocentesis Performed at the Fetal Diagnostic Center”
2002 Ian A. Oyama, M.D. “Local Anesthetic for use in Colposcopic Biopsies”
Melissa J. Lawrence, M.D. “Impact of Fetal Fibronectin Testing at Kapi‘olani Medical Center”
2001 Seema Sidhu, M.D. “Randomized, Double-Blind Trial of Rectal Misoprostol Versus Oxytocin in Management of the Third Stage of Labor”
PAST RESEARCH DAY AWARD RECIPIENTS

2000  Deborah D. Geary, M.D.  “TDx Surfactant/Albumin Ratio and Lamellar Body Count: Effect of Blood and Meconium Contaminants on Fetal Lung Maturity Assays”

1999  Steven M. Nishi, M.D.  “Sample Adequacy of Endocervical Curetage (ECC) Compared with Endocervical Brush”

1998  Julie Ann Henriksen, M.D.  “Nitric Oxide in the Human Placenta”

1997  Cheryl Leialoha, M.D.  “Uriscrren, a Rapid Enzymatic Urine Screening Test for the Detection of Bacteriuria in Pregnancy”

1996  Christine Brody, M.D.  “Vaginal Birth After Cesarean Section in Hawaii: Experience at Kapi‘olani Medical Center for Women and Children”