EIGHTY-FOURTH
ANNIVERSARY
PACIFIC COAST
OBSTETRICAL AND
GYNECOLOGICAL
SOCIETY

Eighty-second Annual Meeting
September 2-6, 2015
Turtle Bay Resort
Kahuku, Oahu, Hawaii

Continuing Medical Education credit is provided through joint providership with The American College of Obstetricians and Gynecologists.
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David Greenspan  John Williams, III

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Martha Goetsch

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Linda G. Hinrichsen
ROSTER OF MEETINGS AND PRESIDENTS

November 19-20, 1931 – San Francisco
  Organization Meeting
  Albert Mathieu, Chairman

December 8-10, 1932 – Los Angeles
  Frank W. Lynch

October 19-21, 1933 – Portland
  Albert Mathieu

November 21-24, 1934 – Del Monte
  Lyle G. McNeile

November 6-9, 1935 – Los Angeles
  J. Morris Slemons

November 11-14, 1936 – Seattle
  Clarence A. DePuy

November 3-6, 1937 – San Francisco
  Ludwig A. Emge

November 30-December 3, 1938 – Los Angeles
  Raymond E. Watkins

November 1-4, 1939 – Portland
  Edmund M. Lazard

November 6-9, 1940 – San Francisco
  Alice F. Maxwell

November 5-8, 1941 – Pasadena
  John Vruwink

November 5-7, 1942 – Oakland
  T. Floyd Bell

November 3-5, 1943 – San Francisco
  C. Frederic Fluhmann

November 6-9, 1946 – San Francisco
  Goodrich C. Schauffler

October 1-4, 1947 – Seattle
  Henry N. Shaw

November 10-13, 1948 – Los Angeles
  Phillip H. Arnot

November 9-12, 1949 – San Francisco
  William Benbow Thompson

November 4-19, 1950 – Timberline Lodge
  Albert W. Holman

December 5-8, 1951 – Coronado
  Roy E. Fallas

October 15-18, 1952 – Del Monte
  Karl L. Schaupp

October 21-24, 1953 – Victoria, B.C.
  Theodore W. Adams

October 27-30, 1954 – Santa Barbara
Emil J. Krahulik  
October 6-9, 1955 – Sun Valley  
Henry A. Stephenson  
October 31 – November 3, 1956 – San Francisco  
Donald G. Tollefson  
October 30 – November 2, 1957 – Palm Springs  
Bernard J. Hanley  
October 15-18, 1958 – Seattle  
Donald J. Thorp  
October 21-24, 1959 – San Francisco  
Donald A. Dallas  
September 28 – October 1, 1960 – Yosemite  
George E. Judd  
September 20-23, 1961 – Yosemite  
Donald W. de Carle  
October 3-6, 1962 – Portland  
Daniel G. Morton  
September 18-21, 1963 – Yosemite  
Howard C. Stearns  
November 4-7, 1964 – Santa Barbara  
Charles T. Hayden  
September 29 – October 2, 1965 – Vancouver, B.C.  
Alfred M. McCausland  
November 2-5, 1966 – Santa Barbara  
Robert K. Plant  
November 29 – December 2, 1967 – Phoenix  
L. Grant Baldwin  
October 2-5, 1968 – Shalishan  
Keith P. Russell  
October 1-4, 1969 – Yosemite  
Robert D. Dunn  
November 9-14, 1970 – Kauai  
Ralph C. Benson  
October 5-10, 1971 – La Costa  
Ernest W. Page  
October 3-7, 1972 – Harrison Hot Springs  
Purvis L. Martin  
October 29 – November 4, 1973 – The Wigwam  
Charles F. McLennan  
October 6-10, 1974 – Sun River  
Paul G. Peterson  
October 6-11, 1975 – Del Monte  
Ralph H. Walker  
November 7-13, 1976 – Kona  
Carl Goetsch  
October 4-8, 1977 – Santa Barbara
Melvin W. Breese
   September 26-30, 1978 – Salishan
William J. Dignam
   September 26-30, 1979 – Palm Springs
Leon J. Shulman
   October 6-11, 1980 – Monterey
Leon P. Fox
   September 27 – October 3, 1981 – Kauai
Colin C. McCorriston
   September 26-30, 1982 – Pebble Beach
Ivan I. Langley
   September 6-10, 1983 – Vancouver, B.C. Canada
George A. Macer
   October 21-27, 1984 – Tucson
   Jesse A. Rust, Jr.
   September 29 – October 4, 1985 – Napa
   Edward C. Hill
   September 21-25, 1986 – Salishan
   Charles D. Kimball
   September 27 – October 2, 1987 – Pebble Beach
   Charles F. Langmade
   November 12-19, 1988 SS Independence
   Eugene C. Sandberg
   September 17-21, 1989 – Coronado
   David C. Figge
   September 9-14, 1990 – Sun Valley
   James M. Maharry
   September 9-12, 1991 – Ashland
   Richard N. Bolton
   October 11-16, 1992 – Ojai
   Walter S. Keifer
   September 7-12, 1993 – Bellingham
   Gilbert A. Webb
   October 24-29, 1994 – Scottsdale
   David Pent
   September 16-21, 1995 – Squaw Valley
   E. Forrest Boyd, Jr.
   October 2-6, 1996 – Sunriver
   Theodore W. Loring
   September 17-21, 1997 – Coeur d’Alene
   James C. Caillouette
   September 16-20, 1998 – Whistler
   E. Paul Kirk
   October 20-24, 1999 – Cancun
   Michael R. Smith
   November 14-19, 2000 – Hawaii
   S. Gainer Pillsbury, Jr.
October 3-7, 2001 – Ashland
W. Gordon Peacock

October 22-27, 2002 – Rancho Mirage
Robert Israel

September 16-21, 2003 – Anchorage
Emmet J. Lamb

October 19-24, 2004 – Phoenix
Russell K. Laros, Jr.

September 28-October 2, 2005 – Kauai
P. Ronald Millard

October 4-8, 2006—Sun Valley, Idaho
Kenneth A. Burry

October 10-14, 2007—Henderson, Nevada
Frank R. Gamberdella

October 15-19-2008—Victoria, B. C., Canada
Jerry M. Shefren

September 30-October 4, 2009—La Jolla, California
Lyman A. Rust

September 29-October 3, 2010—Kohala Coast, Hawaii
J. T. (Bill) Parer

September 14-18, 2011—Sunriver, Oregon
Robert Prins

October 3-7, 2012—Newport Beach, California
John A. Enbom

October 2-6, 2013—Walla Walla, Washington
Marilyn K. Laughead

October 22-26, 2014 - Marana, Arizona
Donald Barford
RECIPIENTS OF
PCOGS FRANK LECOCQ
LIFETIME ACHIEVEMENT AWARD

Frank LeCocq - November 18, 2000
Robert C. Goodlin - October 6, 2001
William Dignam - October 20, 2002
Robert (Bob) Israel - October 3, 2009
Jerry M. Shefren - September 29, 2010
Linda G. Hinrichsen - October 6, 2012
James C. Caillouette - October 23, 2014
<table>
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<td>Marrs</td>
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<td>Incerpi</td>
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ACTIVE FELLOWS continued

Robertson
Rogers
Rowles
Roy
Schlaerth
Schrinsky
Schwartz
Segal
Shaw
Simpson
Smith, L.
Smith, W.
Snell
Steinke
Stempel
Stucky
Tamimi
Tomlinson
Tomsen
Towner
Valenzuela
Vargas
Vasilev
Veljovich
Walker
Wallace
Wentross
Wiggins
Williams
Willis-Hassan
Winch, G. Jr.
Winter, W.
Wittenberg
Wohlmuth
Woods
Yee
Zheng

Total Fellows 192
<table>
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<th>RETIRED FELLOWS</th>
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<tr>
<td>Allen Hartman</td>
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<td>Barbis Henderson</td>
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<td>DiSaia Lucas</td>
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<td>Enbom Mahary</td>
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<td>Fearl Mayo</td>
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<td>Forsythe McCausland</td>
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<td>Freeman Millard</td>
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<td>Fukushima Mouer</td>
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<td>Garite Nakayama</td>
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<tr>
<td>Benirschke Jensen, H.</td>
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<td>Felix Jensen-Sehdev</td>
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<th>NON-RESIDENT FELLOWS</th>
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<tr>
<td>Blanchette Kim</td>
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<tr>
<td>Brewster Learman</td>
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<tr>
<td>Cain Martin-Cadieux</td>
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<tr>
<td>Gabbe Towers</td>
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| Total Fellowship - 282       |
A logo is a symbol of identity and, as such, should be filled with symbolism and, in fact, tell a story. With this in mind the Logo Committee, seeking symbols, researched the name of the Society-first the region, Pacific Coast; second our specialty, obstetrics and gynecology; and third our birth, a Society founded in 1931, three elements suggesting a Trinity or three-part logo.

The first effort was to derive symbols from Pacific Coast which would relate to our region and specialty: sun, energy, birth, life. The most common symbol in the Pacific is the sun. Pacific is, of course, from the Latin word Pacificus, meaning "more peaceful"-sunny and more peaceful. It was Magellan who named the Pacific Ocean in 1520 and appropriately so. Since the sun gives life and is symbolic of our region, it was chosen for the outer protective circle of our logo.
The middle circle contains essential information providing the initials for Pacific Coast Obstetrical and Gynecological Society and the founding date, 1931.

The third part, and the heart of the logo, required difficult decisions. Once again, symbols began to flow: feminine, dynamic, classic, historic, anatomic, scientific, timeless, cyclic, lunar. It seemed appropriate to draw from the work of one of the three great artists of all time, one who was also an anatomist, engineer, inventor—a true Renaissance man, a person to emulate—Leonardo de Vinci. The artist, Dorothy Koll, adapted Leonardo's work "Canon of Proportions" from his anatomy notebook "Quarderni di Anatomia," volume VI, folio 8r. This drawing was sketched at approximately the same time that Magellan was naming the Pacific Ocean. What a fitting coincidence for our logo. The central figure is appropriately female rather than Leonardo's male. The anatomy is clear. The figure illustrates structure and movement, depicting the dynamic, cyclic, and ever-changing life of the female.

James C. Caillouette
Chairman, Logo Committee
Kauai 1981
50th Anniversary Meeting
IN MEMORIAM

John B. Girard
2015
Elected to Fellowship 2004

Robert H. Gregg
2013
Elected to Fellowship 1977

M. Wayne Heine
2012
Elected to Fellowship 1994

Thomas H. Kirschbaum
2013
Elected to Fellowship 1970

James A. Merrill
2014
Elected to Fellowship 1986
IN

MEMORIAM

Alonzo Monk
2014
Elected to Fellowship 1996

William J. Spanos
2011
Elected to Fellowship 1972

Morton A. Stenchever
2015
Elected to Membership 1980

Francis M. Terada
2015
Elected to Fellowship 1982

Clyde Von Der Ahe
2014
Elected to Fellowship 1980
THE PACIFIC COAST OBSTETRICAL AND GYNECOLOGICAL SOCIETY
HISTORICAL OVERVIEW and the PROCESS OF ATTAINING MEMBERSHIP

The Pacific Coast OB/GYN Society (PCOGS) was founded in 1931 and has a long tradition of excellent annual scientific meetings that offer presentations from all areas of the specialty. The Society is composed of five regional caucuses representing the geographic organization of the PCOGS structure. Members (Fellows) reside in seven western states stretching from Arizona to Alaska, including Hawaii. Membership in the society has always been by invitation, and presentation of a scientific paper is the steppingstone to membership. It is hoped that new members will come to value the society, regularly attend meetings, and contribute with subsequent presentations, formal discussions, and/or in the informal discussions from the floor.

In order to evaluate the PCOGS and decide whether guests wish to pursue membership, interested physicians can come as a member’s personal guest to an annual meeting. The official process to join begins in the applicant’s geographic caucus, where a member sponsors a guest physician’s application. Caucus members then vote to invite applicants to be a guest of the Caucus at the following annual scientific meeting. This provides an official introduction to the group, allows more exposure to the process, and starts the timeline for presentation of a paper two years later. When invitees agree to come to the annual meeting as a Caucus Guest it is important to be sure they are available for the meeting dates.
Two years after coming as a Caucus Guest and following caucus and board approval candidates will be invited as a Society Guest to present a scientific paper. Invited Society Guests are welcome to come to the interval annual meeting as a guest of the Board of Directors. There is no obligation to attend as a Guest of the Board. Meeting registration and expenses are the responsibility of invited guests for each meeting. Following each Annual Scientific Meeting the PCOGS members vote on the Society guests and the Board sends its confirmation of membership.

Society guests always present their papers in an oral format for admission to the PCOGS. The scientific program also includes presentations by Fellows. Posters are a second presentation format and every year OBGYN residents and fellows from Pacific Coast medical centers are invited to exhibit posters at the Society’s as guests of the society. The best resident/fellow poster is awarded an honorarium. One resident/fellow also wins the chance to present his/her paper orally and receives an honorarium. So that they can be formally introduced and welcomed, poster presenters give an oral 5 minute summary of their poster from the podium.

A mentoring process for PCOGS Society guests is in place to facilitate the best paper possible with the least distress for the candidate. The sponsoring caucus will match the candidate with a suitable mentor. This person will be able to help guests understand and manage the membership process. The assigned mentor will be someone who is knowledgeable in the candidate’s research area or will direct the candidate to another PCOGS fellow
who is knowledgeable. In some instances candidates may need assistance from several mentors to facilitate the planning process, IRB approval, and data analysis. As IRB approval takes time it is important to know whether IRB approval is needed before initiating a study or data collection. If the mentor arrangement doesn’t work, the candidate may ask the Caucus chair for assistance in making a change.

The PCOGS has always prided itself on the quality of the presented papers. Historically, presentations have been the culmination of a process of original data collection, analysis, drafting a manuscript suitable for publication, and oral presentation at the annual meeting. At that meeting the presentation is followed by a formal discussion presented by a Society member who has volunteered to critique the manuscript and ask several questions. After the formal discussion, audience members and their guests have the opportunity to ask further questions. After the formal discussion, and after each member’s informal questions, the paper’s presenter responds to the queries.

Historically, the various regional OBGYN societies in the country, such as the PCOGS, have had a relationship with the American Journal of OBGYN (AJOG) to have their best papers published in a later AJOG issue. PCOGS papers appear eight or nine months following the meeting in the July issue. Prior to 2006, manuscripts presented to PCOGS were peer reviewed anonymously by PCOGS members, and then sent to AJOG. Since 2006, manuscripts are sent directly to the journal for peer review, and they undergo the same editorial peer review process as non-society papers using the journal’s set of peer reviewers.
As the Society valued the previous internal review by PCOGS members prior to submission, there is a process for internal review, presently called “pre-review.” This creates a non-mandatory option of pre-submission review within PCOGS, so authors can get some input allowing improvement of their paper before AJOG submission.

PCOGS is a member run organization. Many members devote time to making the organization work. Linda Hinrichsen, PCOGS Society Administrator, has served the society for over 25 years and is available for assistance. Guests attending the meeting quickly realize that member volunteers manage all the arrangements, the registration, and the entire agenda. Attention to provided information and instructions, coupled with timely responses, will help the efforts and efficiency of the hard-working PCOGS fellows who make these meetings so successful.

The PCOGS blends those in community practice and those in academic practice, essentially academic clinicians and clinical academicians, and welcomes their families to the annual meetings. Members take pride in the social aspects of the society, which opens opportunities to develop lasting friendships with members geographically distant from their own communities. The addition of enthusiastic new members is vital to the continuation of the Society. We hope our guests will be interested in learning more and pursuing membership.

John A. Enbom
and
Martha Goetsch
HISTORIAN'S CORNER

NEW WEB FEATURE

Our historian has initiated a page on our PCOGS web site called “Historian’s Corner”. You are invited to visit it at www.pcogs.org for some history, some fond recollections, and some tall tales.
2014 PRESENTATIONS
PUBLISHED
IN
AJOG
OR ALTERNATE JOURNALS

Significance of Adenomyosis On Tumor Progression
And Survival Outcome Of Endometrial Cancer
Sigita Cahoon - Ann Surg Onco - 2014 Dec;21
Charles Kimball Award

Lessons Learned in the Implementation of a Quality
Improvement Study for Cervical Length Screening
Santosh Pandipati - PCOGS edition of AJOG

2013 Presentation published in 2014

Cost-Benefit Analysis of Indirect Antiglobulin
Screening In Rh(D) Negative Women At 28 Weeks
Gestation
Rebecca Dunsmoor-Su - Green Journal—05/2014

Precision of Progesterone Measurements With the
Use of Automated Immunoassay Analyzers and the
Impact on Clinical Decisions for In Vitro
Fertilization
Phillip E. Patton - Fertil Steril. 06/2014
GUESTS
SOCIETY GUESTS

Paola Aghajanian (Allen Alaverdian)  
(Los Angeles Caucus)  Los Angeles, California  
Sponsor - Cinna Wohlmuth

Millie A. Behera (Sanjiv)  
(San Diego/AZ Caucus)  Scottsdale, Arizona  
Sponsor - Marilyn Laughead

Kathryn Houston (Robert Blazej) San Francisco, California  
(San Francisco Caucus)  
Sponsor—Patty Robertson

Santosh Pandipati (Rachel)  
(San Francisco Caucus)  Campbell, California  
Sponsor - C. Andrew Combs

Chirag A. Shah (Jennifer Reichel)  
(Seattle Caucus)  Seattle, Washington  
Sponsor—William A. Peters, III

Lora K. Shahine (Omar)  
(Seattle Caucus)  Seattle, Washington  
Sponsor - Lori Marshall

Angelyn R. Thomas  
(San Francisco Caucus)  Orinda, California  
Sponsor - John Girard

Marc L. Winter (Ellen)  
(Los Angeles Caucus)  Laguna Hills, California  
Sponsor - David J. Lagrew, Jr.
GUESTS
CAUCUS GUESTS

Paula H. Bednarek                                            Portland, Oregon
(Portland Caucus)
Sponsor - Martha Goetsch

Kurt R. Finberg (Kristine)                       Bakersfield, California
(Los Angeles Caucus)
Sponsor - Brian Acacio

Juan M. Gonzalez Velez                      San Francisco, California
(San Francisco Caucus)
Sponsor - Bill Parer

Kelly L. Helms                                              Scottsdale, Arizona
(San Diego/AZ Caucus)
Sponsor - Sarah Snell

Shauna Hicks (David Cadiz, PhD)         Vancouver, Washington
(Portland Caucus)
Sponsor - Melanie Plaut

Brenda S. Houmard (Todd)                      Spokane, Washington
(Seattle Caucus)
Sponsor - Lori Marshall

Steven Kang                                                    Honolulu, Hawaii
(San Francisco Caucus)
Sponsor - Keith Ogasawara

Lena H. Kim (Theodore Ruel)                     Greenbrae, California
(San Francisco Caucus)
Sponsor - Patty Robertson
GUESTS
CAUCUS GUESTS

Jeannette Lager (Jonathan George)               San Francisco, California
(San Francisco Caucus)
Sponsor - Patty Robertson

Bruce B. Lee                                   Beverly Hills, California
(Los Angeles Caucus)
Sponsor - James Macer

Kathryn Macaulay (Frank)                        San Diego, California
(San Diego/AZ Caucus)
Sponsor - Ronald Reinsch

Malcolm G. Munro (Sandra)                      Los Angeles, California
(Los Angeles Caucus)
Sponsor - Richard Paulson

Christopher P. O’Reilly-Green (Paula)          Modesto, California
(San Francisco Caucus)
Sponsor - Bill Parer

Philippa Ribbink (Joni Kabana)                 Portland, Oregon
(Portland Caucus)
Sponsor - Wendy Smith

M. Hellen Rodriguez (Richard Armas)             West Covina, California
(Los Angeles Caucus)
Sponsor - Tom Powers
GUESTS
CAUCUS GUESTS

Kristina Roloff (Jason)                       Colton, California
( Los Angeles Caucus)
Sponsor - Guillermo Valenzuela

Kirsten Salmeen          San Francisco, California
( San Francisco Caucus)
Sponsor - Bill Parer

Brian L. Shaffer (Lishiana)                  Portland, Oregon
( Portland Caucus)
Sponsor - Aaron Caughey

Lishiana Shaffer (Brian)                       Portland, Oregon
( Portland Caucus)
Sponsor - Aaron Caughey

Debra S. Wickman (Lehi Gaytan)       Phoenix, Arizona
( San Diego/AZ Caucus)
Sponsor - Dean Coonrod

Lyndsay J. Willmott                             Phoenix, Arizona
( San Diego/AZ Caucus)
Sponsor - David Greenspan
## GUESTS
### PERSONAL GUESTS

<table>
<thead>
<tr>
<th>Name</th>
<th>City</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td>Elizabeth B. Ausbeck (Mark)</td>
<td>Honolulu, Hawaii</td>
<td>Keith Ogasawara</td>
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<tr>
<td>Michelle Benoit</td>
<td>Seattle, Washington</td>
<td>Jane Dimer</td>
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<td>Lisa Farkouh</td>
<td>Portland, Oregon</td>
<td>Sally Wentross</td>
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<td>Abby Furukawa (John)</td>
<td>Portland, Oregon</td>
<td>Megan Bird</td>
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<tr>
<td>Jenny Jaque</td>
<td>Los Angeles, California</td>
<td>Robert Israel</td>
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<tr>
<td>Lisa Karamardian (Vahe)</td>
<td>Newport Beach, California</td>
<td>Albert Phillips</td>
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<td>Juan Lopez</td>
<td>Bakersfield, California</td>
<td>Brian Acacio</td>
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<td>Heather Macdonald</td>
<td>Los Angeles, California</td>
<td>Robert Israel</td>
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<td>Melissa Natavio</td>
<td>Los Angeles, California</td>
<td>Robert Israel</td>
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<tr>
<td>Joshua Press</td>
<td>Seattle, Washington</td>
<td>Pamela Paley</td>
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<tr>
<td>Emily Rangel (Ryan)</td>
<td>Corvallis, Oregon</td>
<td>Duncan Neilson</td>
</tr>
<tr>
<td>Laurence E. Shields</td>
<td>Santa Maria, California</td>
<td>David Lagrew, Jr.</td>
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</tbody>
</table>
GUESTS OF THE
BOARD OF DIRECTORS

Jonathan L. Abbott                           Tacoma, Washington
Poster presentation

Fred H. Coleman (Cece)              Vancouver, Washington
Sponsor - Duncan Neilson

Charlotte L. Conturie                    Los Angeles, California
Ted Adams Scholarship Award

Cari Costanzo                                      Stanford, California
Guest Speaker

Ariel Dubin                                         San Jose, California
Poster presentation

Rebecca Falik                                      San Jose, California
Poster presentation

Barbra Fisher (Adam)                              Portland, Oregon
Sponsor - Mark Tomlinson

Dana Henry                                 San Francisco, California
Ted Adams Scholarship Award

Sarah Isquick                              San Francisco, California
Ted Adams Scholarship Award

Carol Morcos (Paul)                               Corvallis, Oregon
Sponsor - Jodel Boyle
GUESTS OF THE BOARD OF DIRECTORS

Linda R. Nelson (Robert Candipan, MD) Scottsdale, Arizona
Sponsor - David Greenspan

Laura L. Norrell (Lora Hirschberg) San Francisco, California
Sponsor - Patty Robertson

Betsy O’Donnell San Francisco, California
Ted Adams Scholarship Award

Bettina Paek (Rob) Seattle, Washington
Sponsor - Julie Lamb

Logan Peterson Tacoma, Washington
Meritorious Poster Presentation

Jeffery Peipert St. Louis, Missouri
Guest Speaker

Teresa Sparks San Francisco, California
Meritorious Poster Presentation

Kayvahn Steck-Bayat San Jose, California
Meritorious Poster Presentation

Jonas J. Swartz Portland, Oregon
Frank Lynch Memorial Essay

Andrew S. Thagard Tacoma, Washington
Ted Adams Scholarship Award

Kristl Tomlin Phoenix, Arizona
Ted Adams Scholarship Award
GUESTS OF THE BOARD OF DIRECTORS

Abraham Verghese                         Stanford, California
Guest Speaker

Marron Wong                       San Francisco, California
Meritorious Poster Presentation

Adrianna B. Wesol (Barbara Gamble)    Seattle, Washington
Sponsor—Jane Dimer

Kelly Yamasato                  Honolulu, Hawaii
Meritorious Poster Presentation
GENERAL INFORMATION

Registration will be Wednesday, September 2, 2015 from 2:00pm-6:00pm in the Kahuku Ballroom Foyer.

Activities Day participants may register on Tuesday, September 1, 2015 from 4:00pm-6:00pm in the Kahuku Ballroom Foyer. Late registration will be arranged.

The registration fee of $675.00 per attendee/
$1,150 per couple includes:
- Welcome Reception & dinner party (Wed.) - casual dress
- Combined Thursday Luncheon Lecture for attendees and companions (box lunches)
- Thursday evening – Caucus receptions - casual dress
- Friday evening - dinner at Waimea Valley - casual dress
- Saturday Evening Presidential Reception and Dinner/Dance – Business casual/Hawaiian Dress
- Farewell Buffet Breakfast- (Sunday) - casual dress
- Hospitality Suite (Daily) for Attendees and Companions
- Coffee Breaks for scientific sessions (Thurs. Fri., Sat.)

PLEASE WEAR YOUR IDENTIFICATION Badge TO ALL FUNCTIONS

Attire for scientific sessions - business casual
PRESENTATION GUIDELINES

Thirty (30) minute presentations - 15 minutes is for your presentation, 5 minutes for formal discussion and 10 minutes for discussion from the assembly.

Twenty (20) minute presentations - 10 minutes is allowed for your presentation with 10 minutes allowed for questions and discussion from the assembly.

Adherence to the time schedule is important and all are expected to cooperate.

FORMAL DISCUSSION/REVIEW GUIDELINES

FORMAL DISCUSSANT - assigned to 30 minute presentations - Formal discussants will present their discussion orally. Five (5) minutes is allowed for formal discussion.

FORMAL DISCUSSIONS are to be uploaded through the Society web site prior to the annual meeting. References, if any, should be formatted according to the "Information for Authors" in the AMERICAN JOURNAL of OBSTETRICS AND GYNECOLOGY. A revised discussion will be accepted by the Editor if received within 2-weeks of the last day of the Annual Meeting. Submit through the Society web site—www.pcogs.org

FORMAL REVIEWER - assigned to 20 minute presentations Formal reviewers do not present orally. Review manuscript submitted through the Society’s web site, prepare 1-3 questions for the presenter to respond to during their presentation, submit the questions to the presenter 6 weeks prior to the annual meeting in the form of a PowerPoint slide.
ACCME Accreditation
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of The American College of Obstetricians and Gynecologists and Pacific Coast Obstetrical and Gynecological Society. The American College of Obstetricians and Gynecologists is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Category 1 Credit(s)™
The American College of Obstetricians and Gynecologists designates this live activity for a maximum of 14 AMA PRA Category 1 Credits.™ Physicians should claim only the credit commensurate with the extent of their participation in the activity.

College Cognate Credit(s)
The American College of Obstetricians and Gynecologists designates this live activity for a maximum of 14 Category 1 College Cognate Credits. The College has a reciprocity agreement with the AMA that allows AMA PRA Category 1 Credits™ to be equivalent to College Cognate Credits.

Disclosure of Faculty and Industry Relationships
In accordance with College policy, all faculty and planning committee members have signed a conflict of interest statement in which they have disclosed any financial interests or other relationships with industry relative to topics they will discuss at this program. At the beginning of the program, faculty members are required to disclose any such information to participants. Such disclosure allows you to evaluate better the objectivity of the information presented in lectures. Please report on your evaluation form any undisclosed conflict of interest you perceive. Thank you!
LEARNING OBJECTIVES

1) To learn about specific research projects and their application to clinical practice in obstetrics and gynecology, through oral presentations and poster sessions by different members of the Pacific Coast Obstetrical and Gynecological Society and their invited guests.
2) To review a controversial topic in the field of obstetrics and gynecology, by inviting a national expert to present and review data.
3) To network professionally with leaders in the field of obstetrics and gynecology as regards the future of the specialty, residencies, and medical students.

MISSION STATEMENT

The Pacific Coast Obstetrical and Gynecological Society is composed of individuals dedicated to excellence in the health care of women, dedicated to promoting cooperative efforts and unity between private practice physicians and the academic sector, providing continuing medical education for its membership, and advancing knowledge in the specialty. The Society also deals with concerns in the specialty other than direct patient care, including social issues, health care delivery, and patient education. The Society is dedicated to the continuance of the physician's professional learning from medical school through residency/fellowship training and beyond.
PROGRAM SUMMARY
TUESDAY, SEPTEMBER 1, 2015
4:00-6:00pm Early Registration for Activities Day - Kahuku Ballroom Prefunction
LUNCH AND DINNER ON OWN
WEDNESDAY, SEPTEMBER 2, 2015
10:00am Golf - Palmer Course
8:30am -2:45pm Pearl Harbor Tour - buses depart 7:30am
9:00am -1:15pm Kualoa Ranch - buses depart 8:15am
Buses depart from Porte Cochere Bus Turn Around (at entrance of lobby)
2:00-6:00pm Arrival and Registration – Kahuku Ballroom Prefunction
2:00-5:30pm Hospitality Suite* - Villa 107
4:00-6:00pm First Board of Directors Meeting - Maui Room
6:30-7:00pm Reception* - Bay View Beach Lawn
7:00pm Dinner* - Bay View Beach Lawn
9:00pm-12:00am Hospitality Suite
THURSDAY, SEPTEMBER 3, 2015
6:30-7:30am Attendees - Breakfast Buffet*
Members & Guests – Kuilima I, II
8:00-9:00am Companions’ Breakfast*
Kuilima I, II
8:00am Introduction of Guests/Opening Remarks
Kahuku Ballroom
8:00-8:30am Resident/Fellow Oral Synopses of Ted Adams Scholarship Award poster presentations
Kahuku Ballroom
8:30-10:20am Papers 1-4
Kahuku Ballroom
10:20-10:50am Poster Presentations & Informal Discussion/Exhibits
Break/Industry Representatives - Kuilima III Foyer & Ballroom
10:50-11:50am Presidential Choice Lecture
Aaron Caughey—”Peri viability”
12:00-1:00pm  Guest Lecture - Cari Castanzo, PhD
“Pacific Romance: A historical look at representations of race and gender in Hawaii”

**Box Lunches* provided - Spouses/Companions invited**
Kahuku Ballroom

1:00pm  Pictures—Guests – TBA
1:00-1:45pm  First Business Meeting - Kahuku Ballroom
1:45pm  Pictures—Fellows – TBA

2:00-3:30pm  Papers 5-8
Kahuku Ballroom

3:30-3:50pm  Poster Presentations & Informal Discussion/Exhibits
Break/Industry Representatives - Kuilima III Foyer & Ballroom

3:50-4:50pm  Paper 9-11
Kahuku Ballroom

4:50-5:20pm  Lecture - Linda Eckert
“Two for the Price of One: the Maternal Immunization Bargain”

5:00-6:00pm  Hospitality Suite* - Villa 107

6:00-10:00pm  Caucus Receptions
**Los Angeles** - Hawaii Room **Portland** - Pavilion
**San Diego/AZ** - Conference Kiosk

**San Francisco** - Oahu Room **Seattle** - Kuilima Cove Lawn

9:00pm-12:00am  Hospitality Suite * - Villa 107

**FRIDAY, SEPTEMBER 4, 2015**

6:30-7:50am  Attendees - Breakfast Buffet*
Guests – Kuilima I & II

6:30-9:00am  Companions’ Breakfast* - Kuilima I & II

7:00-7:50am  Caucus Meetings
**Los Angeles** - Hawaii Room **Portland** - Pavilion
**San Diego/AZ** - Paa Aki Restaurant

**San Francisco** - Oahu Room **Seattle** - Maui Room

6:30-9:00am  Companions’ Breakfast* - Kuilima I & II

8:00-8:30am  Frank Lynch Memorial Essay
Kahuku Ballroom

33
8:30-9:10am  Lecture - Paula Hillard  
    “Pediatric and Adolescent Gyn”  
    Kahuku Ballroom
9:10-10:10am  James & Joan Caillouette Lectureship  
    Jeffrey Peipert -  
    “The Importance of Long Acting Reversible Contraception”  
    Kahuku Ballroom
10:10-10:40am  Poster Presentations &  
    Informal Discussion/Exhibits  
    Break/Industry Representatives - Kuilima III Foyer & Ballroom
10:40-11:30am  Papers 12&13
11:30-12:30pm  Keynote Lecture  
    Abraham Verghese  
    “The Pen and the Stethoscope: The links between Writing and Medicine” - Spouses/Companions welcome  
    Book signing following the lecture

**AFTERNOON FREE**
12:30pm  Golf - Fazio Course
1:00pm  Birding - assemble in hotel lobby
1:00-5:30pm  Hospitality Suite* - Villa 107
5:30pm  Buses depart from Porte Cochere  
    Bus Turn Around (at entrance of lobby)
6:00-9:00pm  Dinner At Waimea Valley*
9:00pm-12:00am  Hospitality Suite* - Villa 107

**SATURDAY, SEPTEMBER 5, 2015**
7:00-7:50am  Attendees Breakfast* -  
    Members & Guests - Kuilima Ballroom I & II
7:00-7:50am  2015 Membership Track Breakfast*  
    Caucus & Personal guests - Hawaii Room
7:00-9:00am  Companions’ Breakfast* –  
    Kuilima Ballroom I & II
8:00-9:50am  Papers 14-17
9:50-10:20am  Poster Presentations &  
    Informal Discussion/Exhibits  
    Break/Industry Representatives - Kuilima III Foyer & Ballroom
10:20-11:40am  Papers 18-21
11:40-12:20pm  Lecture - Elliott Main
    “Maternal Mortality ad Disparity in Obstetrics”
12:30-1:00pm  Second Business Meeting
1:00-4:00pm  Second Board of Directors Meeting - Maui Room

AFTERNOON FREE
1:30-4:30pm  Hospitality Suite* - Villa 107
5:15-6:15pm  Presidential Address - Kahuku Ballroom
6:15-7:00pm  Presidential Reception* - Kahuku Prefunction

SATURDAY, SEPTEMBER 5, 2015
7:00-11:00pm  Presidential Dinner/Dance*
               Kuilima Point
10:00pm-12:00am  Hospitality Suite*

SUNDAY, SEPTEMBER 6, 2015
7:30-10:00am  Farewell Breakfast* - Kuilima I & II

COMPANIONS ACTIVITIES
THURSDAY, SEPTEMBER 3, 2015
12:00-1:00pm  Guest Lecture - Cari Castanzo, PhD
    “Pacific Romance: A historical look at representations of race and gender in Hawaii”
    Box Lunches* provided - Spouses/Companions invited
    Kahuku Ballroom
10:00am-1:00pm  Cooking Demonstration - Oahu Room

FRIDAY, SEPTEMBER 4, 2015
9:00-10:00am  Book Club - Pavilion*
11:30-12:30pm  Keynote Lecture - Abraham Verghese
    “The Pen and the Stethoscope: The links between Writing and Medicine” - Spouses/Companions welcome
    Book signing following the lecture

*INCLUDED IN REGISTRATION FEE
## LOCATION OF FUNCTIONS

### Academic/Social

<table>
<thead>
<tr>
<th>Day</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Activities Day Arrival</td>
<td>Tues. Kahuku Ballroom Foyer</td>
</tr>
</tbody>
</table>
| Activities Day | Wed.:
| Golf - Palmer Course | Kahuku Ballroom Foyer |
| Pick Up for Pearl Harbor Tour | Kahuku Ballroom Foyer |
| Pick Up for Kuoala Ranch | Kahuku Ballroom Foyer |
| Registration | Wed. Kahuku Ballroom Foyer |
| Board of Directors’ Meeting | Wed. Maui Room |
| Welcome Reception | Wed. Bay View Lawn Beach |
| Buffet Dinner | Wed. Bay View Lawn Beach |
| Pictures | Thurs. TBA |
| Members/Guests | Th,F,S Kuilima 1, II |
| Breakfast Buffet | Th,F,S Kuilima 1, II |
| Membership Track | Sat. Hawaii Room |
| Breakfast - Companions’ Breakfast | Th,F,S Kuilima 1, II |
| Scientific Sessions | Th,F,S Kahuku Ballroom |
| Poster Presentations & Informal Discussion/Break/Exhibit | Th,F,S Kuilima III Foyer |
| Hospitality Suite | W,Th,F,S NEED NAME |
### LOCATION OF FUNCTIONS

#### Academic/Social

<table>
<thead>
<tr>
<th>Day</th>
<th>Location</th>
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<tbody>
<tr>
<td>Caucus Receptions/ Thurs</td>
<td>Los Angeles, Hawaii Room</td>
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<td>Portland, Pavilion</td>
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<td>San Diego/AZ, Conference Kiosk</td>
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<td>San Francisco, Oahu Room</td>
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<td>Seattle, Kuilima Cove Lawn</td>
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<tr>
<td>Caucus Meetings Fri.</td>
<td>Los Angeles, Hawaii Room</td>
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<td>Portland, Pavilion</td>
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<td>San Diego/AZ, Paa Aki Restaurant</td>
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<td>San Francisco, Oahu Room</td>
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<td>Seattle, Maui Room</td>
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<tr>
<td>Birding Fri.</td>
<td>assemble in lobby</td>
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<td>Cycling Fri.</td>
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<td>Golf Fri.</td>
<td>Fazio Course</td>
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<td>Hiking Fri.</td>
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<td>Buses for Dinner Fri</td>
<td>NEED LOCATION</td>
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<td>Dinner</td>
<td>Waimea Valley</td>
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<td>Membership Track</td>
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<td>Breakfast Sat</td>
<td>Hawaii Room</td>
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<td>Board of Directors’ Meeting Sat.</td>
<td>Maui Room</td>
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<td>Presidential Address Sat.</td>
<td>Kahuku Ballroom</td>
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<tr>
<td>Presidential Reception Sat.</td>
<td>Kahuku Ballroom Foyer</td>
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<tr>
<td>Dinner/Dance Sat.</td>
<td>Kuilima Point</td>
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<tr>
<td>Farewell Breakfast Sun.</td>
<td>Kuilima I &amp; II</td>
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### CONTRIBUTORS TO THE MEMORIAL FUND

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Arzou Ahsan</td>
<td>David Lagrew, Jr.</td>
</tr>
<tr>
<td>Donald Barford</td>
<td>Fung Lam</td>
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<tr>
<td>Richard Bashore</td>
<td>Marilyn Laughead</td>
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<td>Jeffery Broberg</td>
<td>George Lee</td>
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<td>Kenneth Burry</td>
<td>James Macer</td>
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<td>Peter Chandler</td>
<td>James Maharry</td>
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<td>Dean Coonrod</td>
<td>P. Ronald Millard</td>
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<td>Ezra Davidson</td>
<td>James Moran</td>
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<td>Maurice Druzin</td>
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<td>Jill Foley</td>
<td>Gainer Pillsbury</td>
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<td>Audrey Garrett</td>
<td>Ronald Reinsch</td>
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<td>William Gilbert</td>
<td>Dale Reisner</td>
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<td>Joseph Hanss</td>
<td>Lyman Rust</td>
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<td>Lee Hickok</td>
<td>Roger Schlesinger</td>
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<td>Linda Hinrichsen</td>
<td>Jerry Shefren</td>
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<td>Jennifer Israel</td>
<td>Sally Wentross</td>
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<tr>
<td>Robert Israel</td>
<td>Donna Wiggins</td>
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<tr>
<td>Paul Kaplan</td>
<td>George Winch, Sr.</td>
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</tbody>
</table>
### THOSE HONORED BY CONTRIBUTORS

#### IN MEMORY OF

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Ted Adams</td>
<td>Frank LeCocq</td>
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<tr>
<td>Charles Broberg</td>
<td>Frank W. Lynch</td>
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<td>Val Davajan</td>
<td>George A. Macer</td>
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<td>Bill Dignam</td>
<td>Jack Molitor</td>
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<td>Dave Figge</td>
<td>Jerry Moore</td>
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<td>Marsha J. Gorrill</td>
<td>Fred Ostermann</td>
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<td>William Graves</td>
<td>Dave Pent</td>
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<td>Alfred Heldfond</td>
<td>Sterling Pillsbury</td>
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<td>Carl Helwig</td>
<td>Jesse Rust</td>
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<td>Thomas Holbert</td>
<td>Gene Sandberg</td>
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<td>Howard Judd</td>
<td>Leon Spadoni</td>
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<td>Walter S. Keifer</td>
<td>Gilbert A. Webb</td>
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<tr>
<td>Charles Kimball</td>
<td>Bill Young</td>
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</tbody>
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#### IN HONOR OF

- Donald Barford
- James C. Caillouette
- John A. Enbom
2015 PROGRAM

THURSDAY: 6:30-8:30am SEPTEMBER 3, 2015

6:30am         Continental Breakfast
               Members & Guests - Kuilima I & II

FIRST SCIENTIFIC SESSION

7:30-8:00am Opening Remarks/Introduction of Guests
8:00am

ORAL SYNOPSES OF
TED ADAMS SCHOLARSHIP AWARD
POSTER PRESENTATIONS

P-01. DOES MORE AGGRESSIVE GESTATIONAL
DIABETES MELLITUS SCREENING IMPROVE
PREGNANCY OUTCOMES?
M. N. Montoro, A. Wang, E. Smith, S. Patel, N.
Brown, J. G. Ouzounian

Charlotte L. Conturie, Los Angeles, California
(By Invitation)

BACKGROUND: The optimal screening paradigm for
gestational diabetes mellitus (GDM) remains controver-
sial. While the American College of Obstetricians and
Gynecologists (ACOG) recommends a “two-step” ap-
proach (screening with a 50 gram 1-hour glucose chal-
lenge test [GCT], followed by diagnosis with a 100 gram
3-hour glucose tolerance test [GTT]), the International
Association of Diabetes in Pregnancy Study Groups
(IADPSG) has advocated for a one-step approach using a
75 gram 2-hour GTT since 2010. Use of this latter guide-
line will increase the prevalence of GDM to as high as
18% of all pregnant women, without clear improvement in pregnancy outcomes. As such, ACOG has advised caution in adopting a one step approach without further research on this matter.

**OBJECTIVE:** To estimate the expected increase in prevalence of GDM in our patient population, and to determine whether there is a clinically significant difference in the incidence of adverse pregnancy outcomes in these additional patients.

**STUDY DESIGN:** This was a retrospective cohort study of women receiving prenatal care and delivering at LAC+USC Medical Center from January 2011 through December 2013. Patients with 3-hour GTT results were identified. Patients diagnosed with GDM were excluded. Patients with a normal 3-hour GTT using Carpenter and Coustan criteria were divided into two groups: normal and abnormal. Patients in the normal group had normal fasting, 1-hour, and 2-hour glucose values using IADPSG criteria. Patients in the abnormal group had at least 1 abnormal fasting, 1-hour, or 2-hour glucose value using IADPSG criteria (Fasting ≥92, 1-hour ≥180, 2-hour ≥153). Outcomes were analyzed with odds ratios calculated using unconditional logistic regression, and adjusted for maternal age, BMI, parity, gestational age, sex, vaginal vs. cesarean delivery, and gestational age at time of GTT.

**RESULTS:** A total of 382 patients were included. There were 270 patients (70.7%) in the normal group, and 112 patients (29.3%) in the abnormal group. There were 246 patients diagnosed with GDM during the study period who were excluded.

Eighty-three percent of patients were Hispanic. Patients in the abnormal group were older compared to the normal group (32±6 years vs. 30±7 years, p=0.05), and
were more likely to have advanced maternal age (35% vs. 27%, \(p=0.11\)). Patients in the abnormal group had a higher body mass index (BMI) compared to the normal group (BMI 30±6 vs. BMI 29±6, \(p=0.04\)). There were no other differences in maternal characteristics between the groups.

Women in the abnormal group were more likely than women in the normal group to develop a hypertensive disorder of pregnancy (adjusted OR 1.8, 95% CI 0.9-3.3), and to experience a 3\textsuperscript{rd} or 4\textsuperscript{th} degree laceration (unadjusted OR 2.1, 95% CI 0.6-6.9). There were no differences in mode of delivery or other maternal complications.

Neonates in the abnormal group were more likely than neonates in the normal group to develop hyperbilirubinemia requiring phototherapy (adjusted OR 2.5, 95% CI 1.5-4.2), and to experience a birth trauma (adjusted OR 3.5, 95% CI 1.1-11.4). Birth trauma included clavicle fracture, brachial plexus injury, cephalohematoma, and other documented evidence of birth trauma. There were no differences in neonatal characteristics or other neonatal complications.

**CONCLUSION:** Adoption of IADPSG criteria for diagnosing GDM could result in a nearly 50% increase in GDM prevalence in our patient population. This will also result in significant costs. We found a 1.8 fold increase in hypertensive disorders of pregnancy and a 2.5 fold increase in hyperbilirubinemia requiring phototherapy in the abnormal group. We also noted an increased incidence of 3\textsuperscript{rd}/4\textsuperscript{th} degree lacerations and birth trauma in the abnormal group, although the overall incidence was low. Additional research in a prospective sample of patients is needed to confirm our findings, and also to assess whether or not treatment has any measurable effect on outcomes.
CAN PLACENTA ACCRETA BE DIAGNOSED BY FIRST TRIMESTER ULTRASOUND?
L. Kim, M. E. Norton, R. Goldstein

Dana Henry, San Francisco, California
(By Invitation)

OBJECTIVE: This study aimed to determine if late first trimester sonographic features can be used to detect placenta accreta.

STUDY DESIGN: We performed a case-control study of women who underwent first trimester ultrasound (US) between 11 and 14 weeks of gestation followed by delivery between 2004-2014 at a single tertiary care referral center. Cases were defined as women who had placenta accreta confirmed by histologic diagnosis at the time of hysterectomy, while controls were patients delivered by cesarean section for a diagnosis of placenta previa who did not have accreta. Cases and controls were identified by ICD-9 code from a prospectively collected perinatal database and confirmed by chart review. Blinded retrospective review of the first trimester US images was performed by three different sonologists. Each sonologist reviewed 23-28 cases, including the 9 accreta cases and 14-19 controls. Accreta was considered to have been detected if it was suspected by 2/3 of reviewers, or by the senior reviewer. Sensitivity and specificity of individual sonographic features as well as first trimester diagnosis of placenta accreta were calculated.

RESULTS: Nine cases and 51 controls were included in the study. Overall, the sensitivity of the diagnosis of placenta accreta in the first trimester was 33% (3/9 cases were
correctly identified) and specificity was 82% (42/51 controls were correctly identified). There was a 6% (3/51) false positive rate and a 66% (6/9) false negative rate. In 10% (6/60) of patients the images were found to be indeterminate, these were all among control patients. Specific features such as bladder interface irregularity (sensitivity 0%, specificity 76%), presence of placental lacunae (sensitivity 44%, specificity 84%) and increased placental vascularity (sensitivity 11%, specificity 39%) were poor predictors of accreta diagnosis (Table 1-page 47).

**CONCLUSIONS:** We found that first trimester US has poor sensitivity for detection of placenta accreta. Individual features associated with accreta later in pregnancy have poor ability to predict this diagnosis in the first trimester.
Table 1: Test characteristics of US in the 1st trimester for identification of placenta accrete—P-02.

<table>
<thead>
<tr>
<th>US Characteristic</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>False positive rate</th>
<th>False negative rate</th>
<th>Image indeterminate rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreta diagnosis</td>
<td>33% (3/9)</td>
<td>82% (42/51)</td>
<td>6% (3/51)</td>
<td>66% (6/9)</td>
<td>10% (6/60)</td>
</tr>
<tr>
<td>Bladder interface irregularity</td>
<td>0% (0/9)</td>
<td>76% (39/51)</td>
<td>10% (5/51)</td>
<td>33% (3/9)</td>
<td>21% (13/60)</td>
</tr>
<tr>
<td>Placental lacunae</td>
<td>44% (4/9)</td>
<td>84% (43/51)</td>
<td>14% (7/51)</td>
<td>56% (5/9)</td>
<td>2% (1/60)</td>
</tr>
<tr>
<td>Increased placental vascularity</td>
<td>11% (1/9)</td>
<td>39% (20/51)</td>
<td>0% (0/51)</td>
<td>89% (8/9)</td>
<td>52% (31/60)</td>
</tr>
</tbody>
</table>
P-03.
NITROGLYCERIN USE FOR THE PREVENTION OF HYSTEROTOMY EXTENSION AMONG WOMEN UNDERGOING CESAREAN DELIVERY IN THE SECOND STAGE OF LABOR

Sarah Isquick, San Francisco, California
(By Invitation)

OBJECTIVE: We aimed to identify predictors of hysterotomy extension in women undergoing cesarean delivery (CD) in the second stage of labor, and to examine whether administration of nitroglycerin (NTG) at delivery is associated with rates of extension.

DESIGN: We performed a retrospective cohort study of women who underwent CD in the second stage of labor at the University of California, San Francisco from 2012-2015. Hysterotomy extension was derived from data recorded by the primary surgeon. NTG was given at the attending obstetrician’s request during delivery of the neonate. Univariate and multivariate logistic regression were used to examine the relationship between second stage duration and the use of NTG on extension as well as maternal hemorrhage and transfusion, 5 minute APGAR <7, NICU admission, umbilical artery pH <7 and base excess ≤ -12.

RESULTS: Among 415 women delivered by CD in the second stage, 107 women (26%) had a hysterotomy extension and 51 women (12%) received NTG. Second stage ≥4 hours was associated with a 2.05 times greater odds of having an extension (95% CI 1.20-3.49). Maternal demographics, obstetric factors (pitocin, induction of labor, operative vaginal delivery attempt), birth weight, and general anesthesia were not significantly associated with an increased risk of extension. Presence of an extension was associated with a 3.04 times greater odds of a hemorrhage
>1500 mL (95% CI 1.68-5.68), but no increased need for a transfusion during hospital admission. Administration of intravenous (IV) and sublingual-spray (SL-spray) NTG were not associated with an increased risk of hysterotomy extension (aOR=1.55 [95%CI 0.61-3.94] for IV NTG, aOR=0.73 [95%CI 0.26-2.09] for SL NTG) or hemorrhage, but administration of IV NTG was associated with a 7.08 times greater odds of needing a transfusion during hospital admission (95% CI 2.35-21.28). Administration of IV NTG was not associated with increased rates of adverse neonatal outcomes, however administration of SL-spray NTG was associated with a 4.55 times increased odds of 5 minute APGAR <7 (95% CI 1.43-14.50), and 3.15 times greater odds of NICU admission (95% CI 1.16-8.52).

**CONCLUSION:** Administration of NTG at the time of CD is a practice used in an attempt to aid in delivery and potentially minimize the morbidity associated with a second stage CD. Our data do not provide clear evidence of a protective effect of IV or SL-spray NTG against hysterotomy extension in this series. The use of SL-spray NTG, however, was associated with adverse short-term neonatal outcomes. Given that IV NTG is more reliably delivered than SL-spray NTG but did not demonstrate any harmful outcomes, our data suggest that NTG is not inherently harmful to neonates. Rather, the use of SL-spray NTG was likely a marker for more difficult cesarean delivery with SL-spray NTG being used as a rescue medicine, reflected in the increased odds of lower APGAR scores and NICU admission observed in this group. Our study raises many important questions about the potential benefits and harms of NTG administration during CD. Critical evaluation of the use of NTG should be undertaken by a randomized controlled clinical trial to evaluate whether administering the more reliably dosed IV NTG preemptively for difficult deliveries may help prevent adverse maternal and neonatal outcomes, and whether there is any neonatal risk associated with this commonly used medication.
P-04.
A “TRIAL OF INDUCTION OF LABOR” – A MEANS TO AVOID CESAREAN DELIVERY FOR A FAILED INDUCTION OF LABOR?
A. K. Lewkowitz, N. Stotland, J. E. Vargas

Betsy E. O’Donnell, San Francisco, California
(By Invitation)

OBJECTIVE: To describe the outcomes of a “trial of an induction of labor” (TIOL), where a patient is sent home undelivered if an initial induction of labor is unsuccessful in generating labor after 1-2 days.

Study Design: This was a retrospective cohort study of women undergoing a TIOL two urban hospitals in San Francisco between 2012 and 2015. The study population included women with a singleton pregnancy in vertex presentation, admitted for a medically indicated induction of labor (IOL), who underwent at least 24 hours of an induction, and were discharged undelivered. Charts were individually reviewed for patient demographics, indication for induction, gestational age at each admission and at delivery, cervical exam on each admission and discharge, mode of delivery, and adverse maternal or fetal outcomes. Frequency distributions were then calculated.

RESULTS: 42 women were included in this study. The mean age was 29.6 years (15-43 years), 71% were nulliparous (parity range: 0-4), the average BMI was 33.0 kg/m² (range 21.9-55.3 kg/m²), and 7.1% (N=3) underwent a TIOL after prior cesarean delivery. The mean gestational age at which initial TIOL was attempted was 38.3 weeks (range 34-42 weeks). The most common indications for a TIOL were intrahepatic cholestasis of pregnancy (19.6%) and gestational diabetes (13.0%). The average duration of initial TIOL was 2.2 days (range 1-6 days). More than two thirds of women (70.1%) who underwent a repeat TIOL attempt delivered vaginally. The most common maternal
complications were chorioamnionitis or endometritis (48.4%) and postpartum hemorrhage (31.0%). Less than 5% of neonates born after a repeat IOL had a five-minute APGAR score of $\leq 5$.

**CONCLUSIONS:** Although there is no universally accepted time limit to consider an IOL unsuccessful, it is common practice to proceed with cesarean delivery for a failed IOL for women who have no or limited cervical change after 24-48 hours of induction. Our data suggest that women who would have otherwise been diagnosed with a failed IOL could be discharged undelivered and a repeat attempt at IOL pursued within a few days. Women who undergo a repeat IOL after an initial TIOL experience a high success rate of vaginal delivery and have excellent neonatal outcomes. More research is needed to determine if repeat IOL after TIOL is associated with increased rates of infection or hemorrhage, as well as to determine optimal candidates for this practice.

**P-05.**
**MAGNESIUM SULFATE AND BETAMETHASONE REDUCE NUR77 GENE EXPRESSION IN A PRETERM LABOR MOUSE MODEL**
N. M. Ieronimakis, D. L. Ippolito, P. G. Napolitano

Andrew S. Thagard, Tacoma, Washington  
*(By Invitation)*

**OBJECTIVE:** Women in preterm labor are commonly treated with magnesium sulfate (MgSO4) and betamethasone (BMTZ) to reduce complications of prematurity including neurologic injury. These interventions
may act by reducing neuroinflammation. Understanding the cellular responses to MgSO4/BMTZ could allow for more effective treatments. Nur77 (Nr4A1) is a nuclear orphan steroid receptor implicated in apoptosis (cell death) and immune responses – processes that occur in neuroinflammation. Using our established preterm labor mouse model, our objective was to investigate if Nur77 gene expression is reduced in the setting of MgSO4 and/or BMTZ treatment.

**STUDY DESIGN:** We interrogated gene array data of fetal brain tissue using an established mouse model of preterm birth and perinatal brain injury with lipopolysaccharide (LPS). Twenty-four CD1 timed-pregnant mice were randomized to receive an intrauterine injection of 100 µg of LPS or the vehicle control (PBS) on gestation day (E) 15. A subset of mice received a lower dose of LPS (50 µg) on E17, sufficient to induce inflammation but also allow delivery at a viable gestational age. Mice were further randomized to receive MgSO4 and/or BMTZ 30 min after the injection. Fetal brains in the E15 group were harvested six hours after surgery for mRNA expression analysis by microarray and validation by quantitative-RT-PCR. Mice in the E17 group were allowed to deliver and brains were harvested on post-natal day 15 for histological analysis.

**RESULTS:** Brain tissue from pups exposed to LPS demonstrated a 4-fold increase in Nur77 expression compared to PBS controls (p<0.05). Treatment with MgSO4, BMTZ, or combination therapy significantly reduced the expression of Nur77 (p<0.05). The elevated expression of Nur77 with LPS correlated with increased glial cell infiltration and changes in neural architectural that were observed by histological analysis in brains harvested on post-natal day 15.
CONCLUSION: The significant increase of Nur77 expression suggests a possible role of this receptor in neuroinflammation and the resulting sequelae. A potential mechanism of action for MgSO4 and BMTZ treatments may lie in mitigating Nur77.

Disclaimer: The views expressed in this article are those of the author(s) and do not necessarily reflect the official policy or position of the Department of the Army, Department of the Air Force, Department of Defense, or the United States Government. Several authors are military service members. This work was prepared as part of their official duties. Title 17 U.S.C. 105 provides that ‘Copyright protection under this title is not available for any work of the United States Government.’ Title 17 U.S.C. 101 defines a United States Government work as a work prepared by a military service member or employee of the United States Government as part of that person’s official duties.

P-06.
SUCCESSFUL INTERVENTIONS: EFFECTIVENESS OF MOTIVATIONAL COUNSELING AND ADOLESCENT-FOCUSED PRENATAL CARE IN PROMOTING LONG-ACTING REVERSIBLE CONTRACEPTION IN POSTPARTUM TEENAGERS
T. Bambulas, D. V. Coonrod, M. Sutton, V. Pazdernik

Kristi Tomlin, Phoenix, Arizona
(By Invitation)

OBJECTIVE: To determine if teenage patients receiving prenatal care in an adolescent-focused clinic, emphasizing Long-acting Reversible Contraception (LARC) using motivational counseling techniques, had higher rates of uptake of postpartum LARC than a control group.
STUDY DESIGN: Retrospective cohort study comparing those who received adolescent-focused care at the New Hope Teen Prenatal Clinic (NHTC) (N=159) and those enrolled in standard prenatal care (N=150), all received care between 2007 and 2014 and were between 13 and 17 years old. Patients’ postpartum birth control method at 13 weeks postpartum were then compared and analyzed using chi-square tests and fitting a logistic regression model to control for confounding.

RESULTS: Site of care was a strong predictor of opting to use LARC after controlling for stated confounders (p=.001), with 40.9% unadjusted rate of LARC uptake among NHTC participants compared to 15.2% for those in standard care, with an adjusted odds ratio 2.8 [95% CI, [1.5-5.2]].

CONCLUSION: Participation in an adolescent-focused antepartum setting using motivational counseling to emphasize postpartum LARC resulted in nearly 3 times higher rates of uptake as compared to standard prenatal care.
P-07.
THE INCIDENCE OF INTRAUTERINE DEVICE PERFORATION IN A TERTIARY CARE HOSPITAL AND ITS AFFILIATED CLINICS
T. S. Batig, A. L. Batig

Logan Peterson, Tacoma Washington
(By Invitation)

OBJECTIVE: Our study’s purpose was to determine the incidence of clinically identified intrauterine device perforations within our tertiary care hospital and its affiliated clinics.

STUDY DESIGN: Using coding data and a search of descriptive terminology from our electronic medical record from 2008-2015, we identified the total number of intrauterine device placements and any cases of diagnosed intrauterine device perforation. For identified cases of device perforation, we collected variables related to placement, the interval from placement to diagnosis, and variables related to diagnosis and resolution.

RESULTS: During the study interval, 3,959 intrauterine device placements occurred; 35 cases of intrauterine device perforation were identified. The overall incidence of identified intrauterine device perforation was 8.8/1,000 placements and 5.8/1,000 if perforations associated with placement occurring outside our healthcare system were excluded. Of the identified perforations, 48.6% were identified more than a year after placement of the device, 74.3% occurred in association with placement during the first 12 weeks after delivery and 37.1% occurred in association with placement in women known to be breastfeeding at the time of the procedure. All identified cases required
at least 1 surgical procedure to remove the perforated device.

**CONCLUSION:** In clinical practice, the incidence of intrauterine device perforation may be higher than suggested by prior studies citing a perforation incidence of 1-2/1,000 and perforation may go unrecognized for months or years before diagnosis. Furthermore, a large percentage of perforations occurred in women who were recently postpartum or breastfeeding at the time of placement. All confirmed cases of perforation required surgical intervention for resolution.

**P-08. HYPERTENSION IN DICHORIONIC TWIN GESTATIONS: HOW IS BIRTH WEIGHT AFFECTED?**

S. Nakagawa, J. Gonzalez

_Teresa N. Sparks_, San Francisco, California

(By Invitation)

**OBJECTIVE:** To examine the effect of hypertension (HTN) on small for gestational age (SGA) and discordant birth weights among dichorionic (DC) twin pregnancies.

**DESIGN:** Retrospective cohort study of DC twin pregnancies delivered at ≥24 0/7 weeks at our institution from 2002 to 2015. We excluded cases with maternal diabetes, tobacco or substance use, chronic steroid use, fetal anomalies, and intrauterine fetal demise. Primary outcome was SGA birth weight (<5th and <10th percentiles examined) in one or both neonates of each twin pair. Secondary outcomes were discordant growth (twin birth weights differing by ≥20%), and degree of discordance (<20%, 20 to <30%, 30 to <40%, and ≥40%). Both HTN in pregnancy (defined as gestational HTN or preeclampsia) and chronic HTN were examined as predictors, and were compared to
DC pregnancies without HTN. Statistical analyses included Chi square test, Student’s t-test, and multivariable logistic regression adjusting for parity, gestational age at birth, maternal age, body mass index, ethnicity, and assisted reproductive technology.

RESULTS: 474 DC twin pregnancies were identified. Of these, 29.1% and 43.7% had SGA birth weights <5th and <10th percentile for one or both twins, respectively, and 15.1% were discordantly grown. Statistically significant differences were not observed in SGA of one or both twins across groups (see table), or in adjusted odds of SGA by HTN subgroup. However, discordance was observed in a larger proportion of DC twin pregnancies with both HTN in pregnancy and chronic HTN, with a greater degree of discordance in the chronic HTN group (see table). For women with HTN in pregnancy, adjusted odds were 2.68 (95% CI 1.48-4.87) for any discordance and 2.94 (1.57-5.48) for discordance with at least one twin also being SGA <10th percentile. For women with chronic HTN, adjusted odds were 4.65 (1.39-15.52) for any discordance and 4.37 (1.21-15.76) for discordance with at least one twin being SGA <10th percentile.

CONCLUSION: Among DC pregnancies, neither HTN in pregnancy or chronic HTN were associated with a statistically increased risk of SGA in one or both twins. Notably though, DC twins with HTN in pregnancy and chronic HTN were at significantly increased risk of discordance.
P-09.
INFERIOR VENA CAVA DIAMETER AND COLLAPSIBILITY IN PREGNANCY
M. Garabedian, A. Sit, P. Gregor

Kayvahn P. Steck-Bayat, San Jose, California
(By Invitation)

OBJECTIVE: A low diameter and high collapsibility of the inferior vena cava (IVC) is associated with hypovolemic and hemorrhage. While this is true for control populations, pregnant physiology may change these IVC findings and in fact be normal. The IVC is rapidly visualized via bedside ultrasound in trauma settings to guide repletion, but this technique has yet to emerge in obstetrics where we also frequently face hemorrhage. Therefore, our objective was to compare the inferior vena cava diameter (IVCD) and prevalence of IVC collapsibility (IVCC) of an obstetric population to a control population in order assess how pregnancy alters the IVC findings.

STUDY DESIGN: Echocardiogram reports of 61 pregnant women were reviewed and demographics were collected. Mean IVCD and IVCC were then compared to the American Society of Echocardiography’s (ASE) guidelines and the 80 patients in their primary referenced article by Moreno et al.

RESULTS: The study group’s mean IVCD was significantly smaller than Moreno et al control group [1.43 cm ±3.9 vs. 1.82 cm ±4.6 (p<0.0001)]. In our normotensive pregnant patients, the IVCD was even smaller [(1.31 cm ±0.35) (p<0.001)]. IVCC of >50% is considered normal per the ASE, but was only seen in 42.6% of pregnant patients. A weak correlation was found between a decreasing IVC diameter and advancing gestational age, increased heart rate, and increasing BMI. No correlation was found between IVCD and parity nor maternal age.
CONCLUSION: The IVCD was significantly smaller in the study group than the Moreno et al’s control group, both overall and for our normotensive patients. Less than half of our study cohort exhibited normal IVCC. Due to the physiological changes of pregnancy, published normal IVC values do not appear generalizable to an obstetric population. This pilot study endorses the creation of a new IVCD and IVCC normogram specific to pregnancy prior to using this ultrasonographic tool in the field of obstetrics.

P-10.
LOW LYING PLACENTAS: RESOLUTION RATES AND DELIVERY OUTCOMES OVER A 13 YEAR PERIOD
B. Li, M. P. Thiet

Marron Wong, San Francisco, California
(By Invitation)

OBJECTIVE: Our aim was to evaluate the eventual placenta location, delivery outcome, and any complications of patients diagnosed with low lying placentas on routine prenatal ultrasound.

DESIGN: This was a retrospective cohort study at an academic medical center of patients diagnosed with low lying placentas (placental edge 1-20 mm from the internal os) from 2002 to 7/2014 who had at least one follow up ultrasound. We excluded patients initially diagnosed with placenta previa. We determined placental location in follow up ultrasounds and ultimate route of delivery.

RESULTS: 963 patients met criteria for the study. 918 (95.3%) had resolution of their low lying placentas. 38 (3.95%) had persistent low lying placentas. The remaining patients had vasa previas (2 patients, 0.2%) and placenta previas (5 patients, 0.5%). 526 patients had available delivery information. In this
group, 514 patients (97.7%) had resolved low lying placentas. Of those with resolved low lying placentas, 382 (74%) delivered vaginally and 132 (25.6%) delivered by cesarean section. Seven patients had persistent low lying placentas. One of the seven patients labored (her placenta was 1.7 cm from the os). She delivered vaginally, but had an intrapartum course complicated by hemorrhage requiring blood transfusion. The remaining six patients with persistent low lying placentas delivered by cesarean: one by patient preference for low lying placenta and five for indications unrelated to placental location. The five final patients delivered by cesarean for vasa previa (1 patient) and placenta previa (4 patients).

**CONCLUSION:** At our institution, most low lying placentas resolve on ultrasound surveillance. The single patient with a persistent low lying placenta who labored had significant intrapartum bleeding. Other patients with persistent low lying placentas delivered by cesarean either by patient choice or for indications unrelated to their placenta. This study suggests that though vaginal delivery is feasible, it is prudent to exercise caution in trials of labor for patients with low lying placentas.

P-11.
**CESAREAN DELIVERY COMPLICATIONS IN WOMEN WITH MORBID OBESITY**

Kelly Yamasato, Honolulu, Hawaii
(By Invitation)

**OBJECTIVE:** To compare rates of cesarean complications between women with body mass index (BMI) 40 – 49.9 kg/m² and BMI ≥ 50 kg/m². Our secondary objective was to examine the association between surgical techniques and cesarean complications among women with BMI ≥ 40 kg/m².
**STUDY DESIGN**: We conducted a retrospective cohort study of women undergoing cesarean delivery from 2009 – 2014 with a delivery BMI ≥ 50 kg/m² and an equal number of randomly selected women with BMI 40 – 49.9 kg/m². Rates of wound complications (infection and/or separation), endometritis, deep vein thrombosis, and estimated blood loss > 1000 mL were compared. We also examined wound complication rates between skin closure techniques and self-retaining retractor use. Chi-square testing was used to compare outcomes and logistic regression used to control for possible confounders.

**RESULTS**: 498 patients were included (249 with BMI ≥ 50 kg/m² and 249 with BMI 40 – 49.9 kg/m²). There were no differences in estimated blood loss > 1000 mL, blood transfusion, deep vein thrombosis, or endometritis. Outpatient follow up information was available for 144 patients with BMI ≥ 50 kg/m² and 162 with BMI 40 – 49.9 kg/m². Among these patients, those with BMI ≥ 50 kg/m² had a significantly higher rate of wound complications (25% vs 12.3%, p=0.004; aOR 2.28 [95%CI 1.24 – 4.18]). Wound separations were significantly increased (11.1% vs 3.1%, p=0.006, aOR 3.93 [95%CI 1.40-11.01]), but not infections (13.9% vs 9.3%, p=0.204, aOR 1.36 [95%CI 0.65 – 2.81]). No differences in wound complication rates were noted between suture, staple, and subcuticular staple skin closure (p=0.741), cyanoacrylate (ie: Dermabond) versus adhesive strip use (p=0.873), or self-retaining retractor use (p=0.109).

**CONCLUSION**: Wound complications, particularly wound separations, increase as the degree of morbid obesity increases, though there were no differences in other operative outcomes. Skin closure techniques and self-retaining retractor use were not associated with cesarean wound complications in patients with morbid obesity.
OBJECTIVE: To compare the effect of early versus traditional postpartum follow up intervals with a primary outcome measure of breastfeeding continuation rates 6 months postpartum.

METHODS: This randomized controlled trial enrolled primiparous women ≥18 who delivered a live-born singleton infant at term and who expressed a desire to breastfeed to a scheduled postpartum visit either 2-3 weeks or 6-8 weeks after delivery. Participants’ intended duration of breastfeeding, assessment of breastfeeding support, and contraceptive plan were assessed at enrollment. The contraceptive plan and intended duration of breastfeeding reassessed at the postpartum visit. Participants were contacted by phone 5-6 months after delivery to assess their infant feeding and contraceptive practices.

RESULTS: Participants in the 2-3 week group had a breastfeeding rate at 6 months of 54.8% (40/73) and participants in the 6-8 week group had a breastfeeding rate at 6 months of 62.2% (51/82). This was associated with a relative risk of 1.20 (CI 0.82-1.74) for having stopped breastfeeding at 6 months when scheduled for an early postpartum visit.
CONCLUSION: Although the expected result of an increased breastfeeding rate at 6 months in the early group was not demonstrated with the current limited sample size, there also did not appear to be any harm in seeing patients back for an early postpartum visit. The results would suggest an increased rate of breastfeeding in the traditional follow up group, however these results were not statistically significant as the confidence interval crosses 1. This is an interval analysis of an ongoing study.

P-13.
POWER MORCELLATION MORATORIUM AND ITS EFFECT ON THE RATE OF WOUND COMPLICATIONS AFTER MINIMALLY INVASIVE MYOMECTOMY

Ariel Dubin, Santa Clara, California
(By Invitation)

OVERVIEW: Since 2014, power morcellation has been banned at many medical centers due to concerns about the spread of occult uterine malignancy. Many surgeons are now removing fibroids through a larger incision, called a minilaparotomy, which is defined as an incision between 3cm to 6cm in length. This can be done at the end of the laparoscopic or robotic procedure, called a minimlaparotomy assisted myomectomy (MaM). Other surgeons are instead doing minilaparotomy myomectomy (ML) for the entire procedure. No data exists specifically pertaining to MaM incisions for myomectomy and the rate of wound complications such as seroma and/or hematoma. This study sought to determine the incidence of wound complications from power morcellated laparoscopic/robotic myomectomy (LRM) compared to MaM and ML. A retrospective cohort study conducted in Northern California Kaiser Permanente hospitals.
Patients included females over 18 years old who underwent a minimally invasive myomectomy for benign indications between January 2011 and December 2014. Preliminary analysis of a random sample of this data showed that the rate of wound complications in LRM group was 0.83%, compared to 4% in the MaM and 0% in the ML however the number of patients in the MaM and ML groups was very low. While this difference was not significant, the trend of wound complications appears to increase with the need for a larger incision to complete MIM due to loss of power morcellation.

**OBJECTIVE:** In the last decade, with advanced minimally invasive surgical techniques including the use of power morcellation, complex surgery such as uterine myomectomies can be performed using just a few 1cm incisions. Patients received the benefits of these advances in minimally invasive gynecologic surgery such as faster recovery, shorter hospital stays, decreased postoperative pain, and reduced incidence of wound complications. However since spring 2014, these power morcellation devices have received intense media attention regarding the risk of disseminating occult cancer because of their use in removal of presumed benign leiomyomas through these incisions. In light of this controversy, Kaiser Permanente Northern California (KPNC) as well as other large institutions in the United States have removed power morcellation devices from their operating rooms. Now surgeons are forced to remove myomas via larger incisions (3cm to 6cm), called “minilaparotomy” incisions (ML) or at the end of a laparoscopic/robotic surgery, resulting in the minilaparotomy assisted myomectomy (MaM) procedure. No data exists specifically pertaining to MaM incisions for myomectomy and the rate of wound complications.
such as seroma and/or hematoma. This study seeks to determine the incidence of wound complications from power morcellated laparoscopic/robotic myomectomy (LRM) compared to MaM and ML.

**DESIGN**: A retrospective cohort study conducted in Northern California Kaiser Permanente hospitals. Patients included females over 18 years old who underwent a minimally invasive myomectomy for benign indications between January 2011 and December 2014. Our primary outcome is the rate of wound seroma and/or hematoma within 48 hours and up to 3 months postoperatively. Exclusion criteria included hysteroscopic myomectomy, incisions larger than 6cm, conversion to hysterectomy.

**RESULTS**: 1230 procedures met inclusion criteria. A random sample of 342 underwent preliminary review. 180 cases were excluded due to type of procedure and according to exclusion criteria; the remaining 162 cases included 25 MaM, 120 LRM, and 17 ML. Preliminary analysis showed that there were no significant differences in age, race/ethnicity, and surgical indication between the groups. There was significant difference in the BMI between groups: larger BMI within the ML group (30.0), MaM (29.8) and LRM (27.8) (p=0.05). The rate of wound complications in LRM group was 0.83%, compared to 4% in the MaM and 0% in the ML however the number of patients in the MaM and ML groups was very low.

**CONCLUSIONS**: Preliminary data analysis found that the rate of wound complications after minimally invasive myomectomy appears to increase with the need for a larger incision to complete minimally invasive myomectomy due to loss of power morcellation.
P-14.
EVALUATION OF PAIN MANAGEMENT DURING FIRST TRIMESTER SURGICAL ABORTIONS (TABs) USING CONSCIOUS SEDATION

Rebecca Falik, Santa Clara, California
(By Invitation)

OBJECTIVE: The purpose of this study is to demonstrate the frequency of inadequate pain management during first trimester TABs under conscious sedation and to correlate pain scores with differing amounts of midazolam and fentanyl.

DESIGN: We performed an IRB-approved retrospective observational study evaluating the distribution of pain scores among patients undergoing TAB aspiration procedures at the Kaiser Permanente Santa Clara Outpatient Procedure Center, where the conscious sedation protocol for TABs includes IV fentanyl and midazolam in addition to a lidocaine paracervical block. 16 providers use different doses, as there is no published recommendation on the adequate timing or dosage during a TAB. In a review of a random half of our cohort, comprising of all 1st trimester TAB patients from 2011 to 2014, we looked at patient-reported pain scores > 4 out of 10 and correlated these with either low doses (≤ 100mcg fentanyl and ≤ 1mg midazolam) or high doses (>100mcg fentanyl and/or > 1mg midazolam). We also evaluated adverse events from overdoses by the frequency of cardiopulmonary events or administration of the antagonists, naloxone and flumazenil.

RESULTS: Of the 336 patients analyzed, 91 (27%) experienced >4 out of 10 pain during their 12-minute (average) procedure. 26% of the patients received an initial high dose regimen, whereas 76% of patients received a total high dose by the end of the procedure, which indicates
that the surgeon responded to the patient’s pain intra-operatively and administered more medication throughout the procedure. In these cases, 30% had a pain score of >4 compared to only 17% of patients given a total low dose (p value = 0.03). There were zero incidents of overdose of the medications.

**CONCLUSION:** A score of >4 out of 10 pain should be preventable with adequate conscious sedation, and that adequate sedation was not provided for 27% of our patients. During a 12-minute procedure, given that the onset of midazolam is up to 15 minutes and the duration of action of both midazolam and fentanyl is at least 30 minutes, the goal total dose of the sedative should be equal to the initial dose. In 50% of the cases, however, the initial dose is less than the total dose, and by the time the additional medication takes effect, 30% of patients have experienced an unacceptably high pain score of >4. We speculate that an initial higher sedative dose would prevent some TAB patients from experiencing significant pain and that incidents of adverse events from medication overdose would remain exceptionally low.

Support for this study was provided by Kaiser Resident Research Committee.
THURSDAY: 8:30-9:00am  SEPTEMBER 3, 2015
O-01.
EVALUATION OF COGNITIVE TESTING
REQUIREMENTS FOR SENIOR PHYSICIANS

Fred Coleman, Portland, Oregon
(By Invitation)

INTRODUCTION: The aging process causes a decline in capability, both physical and mental. The medical field has begun to address the issue of the aging practitioner’s capabilities and safety.

OBJECTIVE: The objective of this study was to evaluate the effect of a new credentialing policy requiring neuropsychiatric evaluation for practitioners aged 70 and older during its first 2 years of implementation.

DESIGN: This is a retrospective review of all providers aged 70 or older following the implementation of a policy requiring neuropsychological and physical dexterity testing (where appropriate) to maintain credentials at our hospital. The evaluation is performed by a trained clinical psychologist, with physical dexterity testing if needed (mostly applied to the surgical specialties). The testing, requiring roughly one half day, is done at the expense of the providers. The evaluation is to be repeated every 2 years. A survey was sent to all providers affected by this new requirement to elicit reactions and suggestions for program improvement.

RESULTS: There were 24 providers meeting the requirement for the additional testing. Eleven (45.8%) of the eligible providers decided to maintain their privileges. Several of the physicians who did not maintain their privileges took the test anyway. All providers who took the test
passed. A survey (70% response) of both groups of providers showed nearly all (16 – 89%) were irritated by the requirement. Most understood the concepts and agreed in principle with the need to protect the patients against an impaired provider. In the group of 13 who gave up their privileges, 3 (23%) retired. The remainder continues to practice at other institutions that do not have such requirements at this time. Fourteen (78%) of the physicians surveyed (10/11 of the group that resigned and 4/7 of the group that continued with privileges) felt this was a form of age discrimination. A majority (15/18 – 83%) thought the hospital should pay for all or part of the test. Six (33%) felt the test, if needed at all, should be given to every provider. While there were a variety of suggested improvements, 14 (78%) suggested or agreed with either a shorter test or no testing, in conjunction with the current oversight process (complication rates plus some form of peer/co-worker review).

**CONCLUSION:** The implementation of new testing requirements for credentialing in physicians 70 or older at our hospital has caused a loss of skilled providers. This could negatively affect patient care which may negate the benefit of patient safety intended by these rules. The majority of the affected providers felt the current hospital oversight process could do the job it was intended to do to protect the patient more effectively and with less burden than requiring a lengthy neuropsychological evaluation every 2 years.

**Formal Discussant:** William Winter, Portland, Oregon
OBJECTIVE: Accurate timing of antenatal corticosteroids (ACS) has resulted in improved neonatal outcomes. Our primary objective was to evaluate admission factors that can assist physicians with optimal timing for ACS administration in women presenting with preterm labor.

METHODS: We conducted a retrospective cohort study of women from 2012 to 2014 who received ACS for spontaneous preterm birth at 24-34 weeks’ gestation. Women were included if they had a singleton or twin gestation and presented with preterm labor or preterm premature rupture of membranes. Accurate timing of ACS was defined as administration of ACS within 7 days of delivery. Maternal demographic and obstetrics characteristics were compared between the groups receiving ACS ≤7 days and > 7 days from delivery. Statistical analyses were performed using parametric and non-parametric tests. P<0.05 was considered significant.

RESULTS: A total of 215 subjects were included in the study. Median latency from ACS administration to delivery was 6 days (IQR 32). Accurate timing of ACS occurred in 113 (52%) women. Gestational age at delivery was earlier in the group with accurate timing (32.0 ± 4.9 vs 36.0± 4.6 weeks, P<0.001). Rupture of membranes (P<0.001), cervical dilation greater than or equal to 2 cm (P<0.001), any cervical change (P<0.001) and contractions (P=0.02) were associated with accurate timing of ACS administration.
CONCLUSIONS: Only 52% of women who presented in preterm labor received ACS within 7 days of delivery. Various admission factors may aid clinicians in the accurate timing of ACS administration.

Formal Discussant: Juan Vargas, San Francisco, California
OBJECTIVE: To determine whether ovarian reserve testing predicts higher rate of aneuploid blasts in RPL patients with diminished ovarian reserve.

DESIGN: This retrospective cohort analysis was performed in a private in vitro fertilization clinic. Forty six patients with RPL (defined as 3 or more clinical miscarriages) underwent in vitro fertilization with blastocyst biopsy and aneuploidy screening of all 23 chromosome pairs. Patients were divided into groups based on baseline hormonal ovarian reserve. Group 1 included normal ovarian reserve (n=26) and group 2 included diminished ovarian reserve with day 2 or 3 follicle-stimulating hormone (FSH) more than 10 milli-international units/mL, antimüllerian hormone 1 ng/mL or less (n=20), or both.

RESULTS: Group 2 (diminished ovarian reserve) had a higher percentage of aneuploid blastocysts (66% compared with 49%; P<.05) and all aneuploid blastocyst cycles (30% compared with 16%; P<.01) than group 1 (normal ovarian reserve). However, implantation rates after transfer of euploid blastocysts were similar (65% compared with 62%; P=0.6).
CONCLUSION: RPL patients with hormonal evidence of diminished ovarian reserve have a significantly higher percentage of aneuploid blastocysts. Regardless of ovarian reserve parameters, transfer of euploid blastocysts resulted in equivalent implantation potential.

Formal Discussant: Brian Acacio, Laguna Nigel, California
THURSDAY: 10:00-10:20am  SEPTEMBER 3, 2015  O-04.
RE-INITIATION OF TRIAL OF LABOR AFTER CESAREAN DELIVERY AT A SAFETY NET HOSPITAL: MATERNAL AND PERINATAL OUTCOMES 2009-2014
A. A. Arias, C. Liem, A. B. Caughey

Peter Chandler, Salinas, California

OBJECTIVE: Trial of labor after prior cesarean delivery had not been offered in Monterey County, California since 2004. The purpose of this study is to compare maternal and perinatal outcomes of women who underwent trial of labor after prior cesarean (TOLAC) delivery from 2009 to 2014 to women who had an elective repeat cesarean delivery the year prior to initiation of our trial of labor program (2008).

STUDY DESIGN: This is a retrospective cohort study examining perinatal outcomes pre- and post- TOLAC availability. In May 2009 Natividad Medical Center began permitting trial of labor after prior cesarean delivery. Maternal and perinatal outcome data was collected from all women who had their first elective repeat cesarean delivery in 2008 and compared to outcome data from women undergoing a trial of labor between 2009 and 2014.

RESULTS: The patients were primarily Hispanic (88%, 86%; repeat cesarean and TOLAC respectively) and insured through MediCal or managed MediCal (93%, 89%). Vaginal delivery was attempted by 610 women and 239 women underwent repeat cesarean delivery. Successful vaginal delivery occurred in 71% of the women undergoing labor. There were 5 cases of uterine rupture in the TOLAC group. There were no cases of maternal death, neonatal death, or stillbirth in either cohort. There was one case of hypoxic ischemic encephalopathy in a trial of labor.
patient not associated with uterine rupture. There was a significant difference in the frequency of neonatal intensive care unit admissions in TOLAC patients (3.1%, 9.8%; p=.002), an increase in maternal adverse events in the repeat cesarean section patients (2.9%, 0.66%; p=.01), and an longer hospital stay for infants in the repeat cesarean section patients (72.0 hrs, 62.1 hrs; p=0.03). There was no significant difference in length of stay for the mother, transfusions, or thrombotic events between the two cohorts.

**CONCLUSIONS:** In the first five years after initiating a TOLAC program we avoided 432 cesarean sections. Clinical outcomes were similar in the study groups with the exception of NICU admission was significantly higher in TOLAC patients while maternal adverse events were higher and length of stay was longer in the infants in the repeat cesarean section group.

**Formal Reviewer:** Patricia Robertson, San Francisco, California
THURSDAY: 10:20am-1:45pm          SEPTEMBER 3, 2015

10:20-10:50am
POSTER PRESENTATIONS & INFORMAL DISCUSSIONS/EXHIBITS
Kuilima Foyer and Kuilima III

10:50am-11:50am
PRESIDENTIAL CHOICE LECTURE
PERI VIABILITY
Aaron B. Caughey, Portland, Oregon

12:00-1:00pm
GUEST LECTURE
PACIFIC ROMANCE: A HISTORICAL LOOK AT REPRESENTATIONS OF RACE AND GENDER IN HAWAII
Cari Costanzo, PhD, Stanford University

Box Lunches provided - Companions invited

1:00pm    Photos—Guests
1:00-1:45pm First Business Meeting
1:45pm    Photos—Fellows
OBJECTIVE: Macrosomia and large for gestational age are much dreaded consequences of many pregnancies complicated by gestational diabetes mellitus (GDM). Much is done to prevent overgrowth in the fetus. However, some pregnancies with GDM are complicated by small for gestational age (SGA) fetuses. We set out to determine if pregnancy outcomes are worse in gestational diabetics with SGA than those without.

METHODS: This was a retrospective cohort study of 110,748 pregnancies with GDM in California, 6,446 of which were complicated by SGA. SGA was defined as birth weight < 10th percentile. Predictors studied were presence of absence of SGA. Outcomes included respiratory distress syndrome (RDS), neonatal demise (NND), intrauterine fetal demise (IUFD), hypoglycemia and jaundice. The data was also stratified by gestational age looking at 32-37 weeks and 37-42 weeks. Univariate analyses were performed.

RESULTS: See Table page 74

CONCLUSIONS: The presence of an SGA fetus in a patient with gestational diabetes is associated with significantly increased risks of adverse outcomes compared to gestational diabetics without SGA including increased risks of RDS, neonatal demise, IUFD, hypoglycemia and jaundice.

Formal Reviewer: David Lagrew, Jr., Irvine, California
## RESULTS - PRESENTATION O-05 - Esakoff

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<th>Condition</th>
<th>SGA N (%)</th>
<th>37-42 wks</th>
<th>p-value</th>
<th>SGA N (%)</th>
<th>32-37 wks</th>
<th>p-value</th>
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<td>63 (11.7)</td>
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<td>14 (0.02)</td>
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<td>IUFD</td>
<td>24 (0.4)</td>
<td>67 (0.1)</td>
<td>&lt; 0.001</td>
<td>16 (3.0)</td>
<td>61 (0.8)</td>
<td>&lt; 0.001</td>
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<tr>
<td>Hypogly</td>
<td>56 (1.0)</td>
<td>316 (0.4)</td>
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<td>21 (3.9)</td>
<td>107 (1.4)</td>
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<tr>
<td>Jaundice</td>
<td>1351 (23.3)</td>
<td>14,881 (18.0)</td>
<td>&lt; 0.001</td>
<td>322 (59.9)</td>
<td>3115 (39.3)</td>
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THURSDAY: 2:20-2:40pm SEPTEMBER 3, 2015 O-06.
PIPELINE PROGRAM TO INCREASE APPLICANT DIVERSITY FOR MEDICAL SCHOOLS: A PARTNERSHIP OF UNIVERSITY OF CALIFORNIA, SAN FRANCISCO AND KAISER PERMANENTE
J. Guerra, D. Lusinchi

Patricia Robertson, San Francisco, California

BACKGROUND: Diversity of physicians is an ongoing challenge, as many under-represented-in-medicine pre-med students drop out of the pipeline during their undergraduate years, which then creates a less diverse medical school class, physician workforce, academic physician community and physician leaders. At the University of California, Berkeley, there is minimal if any, pre-med counseling available. This program was created in 2009, to partially stem the leak in the pre-med pipeline of under-represented minorities.

OBJECTIVES: 1) To develop a summer curriculum at the University of California, San Francisco and Kaiser Permanente Oakland for pre-med students who are under-represented in medicine and who are undergraduates at the University of California, Berkeley 2) To create an environment that is warm and welcoming and that will encourage students to continue their pre-med course.

METHODS: Sixteen students are selected for the eight week summer program that includes working on a research project with a faculty member 20 hours per
week (women’s health, pediatrics or family and community medicine), weekly clinical shadowing experiences, and weekly didactics/community clinic field trips. As a way to evaluate the effect of the program on the students, a self-efficacy instrument is administered at the beginning and again at the end of the summer internship. A small stipend is provided to each student. Continued individual mentoring is available after the program is completed. Data is collected annually on the program participants for the next ten years.

**RESULTS:** Ninety undergraduate students have completed the program, with seventeen currently enrolled in medical school, and one in a masters nurse practitioners program. Many remain in the pipeline completing their undergraduate degrees, attending post-baccalaureate programs, or working in clinical research during their gap year/s while applying to medical school. Every year that the self-efficacy questionnaire was administered, the results show that students’ overall scores at the end of the program have increased significantly when compared to their entry score.

**CONCLUSIONS:** This summer program has had a significant impact on the participants, resulting in improved self-efficacy, high satisfaction with the program including retrospectively from those who are currently enrolled in medical and nursing schools.

**Formal Reviewer:** Laila Muderspach, Los Angeles, California
A PROSPECTIVE INVESTIGATION OF FLUORESCENCE IMAGING TO DETECT SENTINEL LYMPH NODES AT ROBOTIC-ASSISTED ENDOMETRIAL CANCER STAGING


Pamela J. Paley, Seattle, WA

OBJECTIVE: To evaluate the detection rate and accuracy of fluorescence-guided sentinel lymph node detection (SLND) in endometrial cancer (EC) patients undergoing robotic-assisted staging.

METHODS: One hundred and twenty EC patients undergoing SLND using indocyanine green (ICG) were prospectively evaluated. Two cc (1.0mg/cc) of ICG were injected into the cervical stroma divided between the 2-3 and 9-10 o’clock positions at the time of uterine manipulator placement. Prior to hysterectomy, the retroperitoneal spaces were developed and the robotic camera fluorescence imaging employed for SNLD. Identified SNL were removed and submitted for touch prep intraoperatively, then permanent assessment with routine H & E. Patients underwent hysterectomy, BSO, and then completion bilateral pelvic and periaortic lymphadenectomy (PPALAN) based on intrauterine risk factors determined intraoperatively (tumor size >2cm, >50% myometrial invasion, and grade 3 histology).

RESULTS: Of 120 patients enrolled, at least one SLN was detected in 116 (96.7%). Ninety-six patients (80%) had bilateral pelvic or periaortic SLN detected. 82 patients met criteria warranting PPALAN. In 14 patients (17%) periaortic lymphadenectomy was not feasible and the
mean number of pelvic nodes procured was 13 (6-22). Of the 68 (83%) undergoing PPALAN, the mean nodal count was 23.2 (8-51). Of the patients undergoing LAN, 8.5% had lymph node metastasis on final H & E evaluation. Notably, the sentinel node was the only positive node in 43% of cases. There were no cases in which H & E of the sentinel node was negative and metastatic disease was detected upon PPALAN in the non-sentinel nodes (no false negatives), yielding a sensitivity of 100%. Of the 14 sentinel nodes ultimately found to harbor metastases, 3 were negative on touch prep, yielding a sensitivity of 78.6% for intraoperative detection of sentinel node involvement. In all 3 of the false negative touch preps, H & E detected a single micrometastasis (<2mm). As expected, there were no false positive results, yielding a specificity of 100%. No complications related to SLND or allergic reactions to ICG were encountered.

**CONCLUSIONS:** Intraoperative SLND using fluorescence imaging with ICG in EC patients is feasible and yields high detection rates. In our pilot study, SLND identified all women with Stage IIIC disease. Low false negative rates are encouraging, and if confirmed in multi-institutional trials, this approach would be anticipated to reduce the morbidity, operative times, and costs associated with complete PPALAN.

**Formal Reviewer:** John Lenihan, Tacoma, Washington
OBJECTIVE: To evaluate cost efficiency of three different strategies for advanced fertility treatment in women aged 41-42 years.

STUDY DESIGN: Retrospective cohort analysis to evaluate the outcomes and costs of different approaches to fertility treatments in women aged 41-42 years from a patient perspective. Cost data for all components of each treatment strategy and medications were calculated based on patient charges at private fertility clinics in Arizona and local pharmacies. Baseline values and ranges for pregnancy and live birth rates were obtained using retrospective treatment data from over 200 infertility treatment cycles and national database records from 2011-2013. The model included three treatment strategies; in vitro fertilization (IVF) using autologous oocytes (Group 1), in vitro fertilization using autologous oocytes and preimplantation genetic screening (PGS) and frozen embryo transfer (Group 2), and in vitro fertilization using donor oocytes (Group 3).

RESULTS: In the baseline analysis, standard in vitro fertilization was the least expensive therapy option, but least cost effective because of relatively low live birth rates in
comparison to the other treatment groups. Addition of pre-implantation genetic screening and frozen embryo transfer increased cost per cycle, but was associated with increased pregnancy and live birth rates. IVF using donor oocytes was the most expensive, yet most cost effective treatment option when all treatment related costs and medication expenses required to achieve live birth were calculated.

**CONCLUSION:** Fertility treatment in women aged 41-42 years is challenging due to the high costs and relatively low live birth rate. Advances in fertility therapy and newer IVF technologies may have potential to improve outcomes, but are associated with increased cost. In this analysis, IVF using donor oocytes in this age group was more cost effective than IVF using autologous oocytes with or without preimplantation genetic screening and frozen embryo transfer.

**Formal Discussant:** Lori Marshall, Seattle, Washington

3:30-3:50pm
POSTER PRESENTATIONS & INFORMAL DISCUSSIONS/EXHIBITS

*Kuilima Foyer and Kuilima III*
OBJECTIVE: As intrauterine devices (IUD) become increasingly used among women of reproductive age, complications also arise. Absence of IUD string at cervical os is one of the most common challenges encountered at the time of IUD removal. This study summarizes our experience in removing IUD under ultrasound guidance.

DESIGN: Available records were identified in 26 patients who underwent IUD removal under ultrasound guidance from December 2007 to April 2015. Prior to IUD removal under ultrasound, all the patients had undergone a removal attempt with a variety of removal methods without success, including use of the cytobrush, an IUD hook and various forceps. One patient even failed hysteroscopic removal, because the IUD was not found in the uterine cavity.

RESULTS: Twenty four patients had successful removal of IUD under ultrasound guidance. One patient failed because she was unable to tolerate the procedure in the clinic. The other failed after multiple attempts at removal with a polyp forceps. Both patients later had IUD removal with hysteroscopy under general anesthesia. In our series, success rate was 92.3%. No complications occurred during the procedures.
**CONCLUSION:** Removal of IUD under ultrasound guidance is a simple, easy and economical procedure and can be widely practiced in outpatient settings. Hysteroscopy for IUD removal can be a rare event with the use of ultrasound.

**Formal Reviewer:** Audrey Curtis, Portland, Oregon
OBJECTIVES: Obesity and gestational weight gain are both independent risk factors for many gestational diabetes (GDM) associated outcomes, and dietary teaching for weight management is a cornerstone of initial treatment for GDM. Institute of Medicine (IOM) recommended gestational weight gain also differs based on pre-pregnancy weight, and is less for obese women. Our aim was to evaluate gestational weight gain within IOM guidelines in all pregnant women in a diverse HMO, and to evaluate the impact of gestational age at GDM diagnosis on gestational weight gain.

DESIGN: For many years, KP-Hawaii has done universal GDM screening at 24-28 weeks gestation. High-risk women (e.g., prior history of GDM, macrosomia) are generally screened earlier in pregnancy. In June 2010, we instituted an EarlyGDM screening program in the Kaiser Hawaii region for all obese women in addition to screening other women at high risk. Both EarlyGDM and UsualGDM screening was performed by the traditional 2-step method (50-gram glucose-challenge test [GCT]), followed by a 3-hr 100-gram oral glucose tolerance test (OGTT) if GCT+). Excessive weight gain was defined as exceeding IOM pregnancy weight gain guidelines for specific pre-pregnancy BMI groups.
Percent of women exceeding IOM guidelines were calculated for first trimester (total gained), second and third trimester (pounds [lbs]/week), and total gestational weight gain (adjusted for gestation length).

**RESULTS**: Among 5391 pregnant women (2010-2013) without pre-existing diabetes at KP-Hawaii who delivered singleton births, there were 1404 women screened for EarlyGDM and 5111 women universally screened for UsualGDM at 24-28 weeks gestation (including 1124 women that were negative screen early, and rescreened at 24-28 weeks). Overall, 10.6% of women were diagnosed with GDM: 2.6% with EarlyGDM and 8.0% with UsualGDM. After adjusting for length of gestation, women diagnosed with GDM gained 5.6 lbs overall less than women without GDM (23.2 vs. 28.8 pounds, p<0.0001). Obese women also gained 4.3 lbs. overall less than non-obese women (24.7 vs. 29.0 pounds, p<0.0001). Overall, 42% of all pregnant women exceeded IOM guidelines (gained more than recommended); 59% of obese women exceeded guidelines. Although women with Early GDM were much more likely to require insulin treatment than UsualGDM (58 vs. 28%), insulin treatment did not impact their weight gain outcomes (either overall insulin treatment, or timing of insulin treatment). Among the 1440 obese women, women with EarlyGDM diagnosis had a marked reduced rate of exceeding IOM guidelines overall, as well as by first and later trimesters (see Table-Page 86).

**DISCUSSION**: EarlyGDM screening and diagnosis in obese women significantly reduced the likelihood of exceeding IOM weight gain guidelines. As the majority of obese women exceed IOM weight gain guidelines, our results also suggest more emphasis should be placed on interventions to support healthy weight gain even without an EarlyGDM diagnosis.
Funding provided by NIH (NICHD: RO1HD05815)

Formal Reviewer: Linda Eckert, Seattle, Washington
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<th></th>
<th>N</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Trimester (%)</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; and 3&lt;sup&gt;rd&lt;/sup&gt; Trimester (%)</th>
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* IOM guidelines are based on total pounds for 1<sup>st</sup> Trimester, pounds per week for 2<sup>nd</sup>/3<sup>rd</sup> Trimester and pounds adjusted for gestational age for Total weight gain.
THURSDAY: 4:30-4:50pm  SEPTEMBER 3, 2015
O-11
EARLY POSTPARTUM HYSTEROSCOPIC STERILIZATION: CAN IT BE DONE?

Melissa Larsen, Salinas, California

OBJECTIVE: Hysteroscopic sterilization is usually done after 8 weeks postpartum. This is usually outside of the usual post partum leave and health care coverage time. Is it possible to do hysteroscopic sterilization early at 4-8 weeks?

STUDY DESIGN: Between January 1, 2011 to 12/31/2014, early postpartum hysteroscopic sterilization with tubal implants (Essure) was offered to women between 4-8 weeks postpartum. A total of 80 hysteroscopic sterilizations were performed by two providers (WK and ML) using the same protocol. A retrospective review was done and a data base created and tabulated by the date of birth, provider, date of procedure, date of delivery, date of confirmation hysterosalpingogram (HSG), results of HSG, and complications.

RESULTS: Hysteroscopic bilateral tubal implants were able to be placed in 76/80 patients. Difficulty visualizing the tubal ostia was the problem in all four cases due to blood and decidualized endometrium. At 3 months post procedure 4 women were found to have dye spillage from one fallopian tube. Each provider had 2 failures. Of these 4 women, 1 had a follow up HSG at 6 months which showed closed tubes. Two of the women with one open tube elected for laparoscopic salpingectomies. At laparoscopy one case had the tubal implant outside the tube. In this case there was a 4 cm lateral fundal fibroid that distorted anatomy. One women passed the hysteroscopic implant vaginally and has been lost to follow up. 12/76
patients who had successful hysteroscopic implant placement were lost to follow up.

**CONCLUSION:** Hysteroscopic sterilization is possible in the early postpartum period (4-8 weeks). In 95% of attempted procedures the tubal implants were able to be placed bilaterally. In 4/64 (6%) confirmation HSG one tube was found to be open. At 6 month HSG, bilateral occlusion was found in one case. Two women elected for salpingectomies at 3 months. The advantage of early postpartum sterilization is that women can have this done early in their maternity leave.

**Formal Reviewer:** Susan Gorman, Redmond, Oregon
THURSDAY: 4:50-5:20pm          SEPTEMBER 3, 2015

SPECIAL LECTURE

TWO FOR THE PRICE OF ONE: THE MATERNAL IMMUNIZATION BARGAIN

Linda Eckert, Seattle, Washington

5:00-6:00pm  Hospitality Suite* - Villa 107
6:00-10:00pm Caucus Receptions

Los Angeles - Hawaii Room  Portland - Pavilion
San Diego/AZ - Conference Kiosk
San Francisco - Oahu Room  Seattle - Kuilima Cove Lawn
9:00pm-12:00am Hospitality Suite * - Villa 107
FRIDAY: 6:30-8:30am          SEPTEMBER 4, 2015

6:30-7:50am - Continental Breakfast
   Guests—Kuillma I & II
7:00-7:50am  Caucus Meetings
   Los Angeles - Hawaii Room  Portland - Pavilion
   San Diego/AZ - Paa Aki Restaurant
   San Francisco - Oahu Room  Seattle - Maui Room
8:00 am  FRANK LYNCH MEMORIAL ESSAY

OBSTETRICS DRIVES EMERGENCY
MEDICAID SPENDING:  TRENDS IN OREGON'S
EMERGENCY MEDICAID PROGRAM OVER 35
MONTHS
B. G. Darney, A. B. Caughey, M. I. Rodriguez

Jonas J. Swartz, Portland, Oregon
(By Invitation)

OBJECTIVE: The objective of this study was to describe trends in claims and spending in Oregon’s Emergency Medicaid program before and after implementation of the Deficit Reduction Act of 2005, which increased citizenship documentation requirements for traditional Medicaid.

STUDY DESIGN: We performed a retrospective cohort study using Oregon Emergency Medicaid claims from 2005 to 2008, the 18 months preceding and following implementation of the deficit reduction act. Claims data included information on primary diagnosis, amount paid for claims, and demographics of the claimant. International Classification of Diseases, Ninth Edition, Clinical Modification codes to classify diagnoses as obstetric or not. Our primary outcomes were the percentage of obstetric claims before and after implementation of deficit reduction act and total amount paid before and after the policy change.
RESULTS: The majority of claims (81.1%) were for obstetric care and there was a statistically significant though not clinically significant decrease in the proportion of obstetric claims after the implementation of the Deficit Reduction Act, (82.2% versus 80.0%, p<0.001). Total Emergency Medicaid expenditure was $4.8 million higher in the post-Deficit Reduction Act period ($27.3 million pre- versus $32.1 million post-Deficit Reduction Act), and there was a statistically significant increase in the total amount paid per month in the post-Deficit Reduction Act period ($1.96 million pre- versus $2.28 million post-Deficit Reduction Act, p<0.001). Obstetric claims accounted for $3.8 million (79%) of the increase in total payments. There was also a statistically significant and policy relevant increase in the number of claims per month in the post-Deficit Reduction Act period (1,547 claims pre- versus 1,728 claims post-Deficit Reduction Act, p<0.001).

CONCLUSION: Oregon Emergency Medicaid claims show important changes in the time periods before and after implementation of the Deficit Reduction Act. Namely, we observed an increase in the volume of claims and increase in total expenditure. As Emergency Medicaid provides less comprehensive services than traditional Medicaid, for example excluding prenatal care and contraceptive services, policies that decrease access to comprehensive care could be less cost-effective and a detriment to public health.
FRIDAY: 8:30-10:40 am       SEPTEMBER 4, 2015

8:30-9:10 am

SPECIAL LECTURE

PEDIATRIC/adolescent gynecology

Paula Hillard, Stanford, California

9:10-10:10 am

James C. and Joan Calliouette LectureSHIP

The Importance of Long Acting Reversible Contraception

Jeffery Peipert, St. Louis Missouri
(By Invitation)

10:10-10:40 am

Poster Presentations & Informal Discussions/Exhibits

Kuilima Foyer and Kuilima III
BACKGROUND: In 2009 the Hawaii Permanente Medical Group Inc. (HPMG) embarked on an innovative and unique way of delivering obstetrical care at the Moanalua Medical Center. Instead of the traditional medical model (Resident/Attending teaching hospital) we transitioned to a fully integrated and collaborative Midwife/Attending model of care. This was thought to provide a more patient centered model of care. The goal was to improve the quality of care and improve our member satisfaction by offering a unique form of integrated care unlike any other obstetrical care model currently available. A secondary goal was to improve the educational experience for our rotating OB-GYN residents. The traditional midwifery model of care has a separate “low risk” midwife only service and a separate high risk “medical model” type service staffed by physicians and residents. Our proposed unique model of care fully integrates the midwifery service (midwives become HPMG employees) with the medical model creating a truly collaborative and integrated service allowing our members access to the ‘best of both worlds.’ Although partially integrated midwifery services have been tried in other centers, none have attempted such a collaborative and fully integrated model as we proposed. The purpose of this study is to critically evaluate our primary outcomes after transitioning to this new model of care.

METHODS: Retrospective analysis of delivery data and
HCAHPS scores from 2006 to 2014 at the Moanalua Medical Center. Quality was measured by reviewing cesarean delivery rates as well as vaginal birth after cesarean (VBAC) rates. Member satisfaction was measured using standard HCAHPS scores. Resident satisfaction was measured using evaluation data from the University of Hawaii OBGYN Residency program over the study period. Statistical analysis was done using Chi Square analysis and ANOVA for trend.

**RESULTS:**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Traditional</th>
<th>Midwife</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Repeat Cesarean Rate</td>
<td>81.5%</td>
<td>68.1%</td>
<td>0.002</td>
</tr>
<tr>
<td>Primary Cesarean Rate</td>
<td>16.8%</td>
<td>14.3%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Total Cesarean Rate</td>
<td>24.0%</td>
<td>20.8%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>VBAC Rate</td>
<td>18.5%</td>
<td>31.9%</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

There was a significant trend for improvement in HCAHPS scores over the study period for: rate hospital (9-10), would recommend hospital to family, nurse communication composite, nurse courtesy, nurse listened carefully, nurse explanation, Dr. communication composite, Dr. courtesy, Dr. listening carefully, Dr. explanation and hospital environment composite ($p = < 0.05$). There was no trend for responsiveness of hospital staff, pain management communication about medication and discharge information. There was a trend for improvement with higher positive scores given by OBGYN residents regarding the Kaiser rotation after the midwife service started.
CONCLUSION: The unique integrated midwifery program started by HPMG successfully improved measured quality outcomes, member satisfaction and OBGYN resident perceived value of education.

Formal Reviewer: Hedric Hanson, Anchorage, Alaska
BACKGROUND: The diagnosis of Twin-to-Twin Transfusion Syndrome (TTTS) usually relies the presence of polyhydramnios in one sac with concomitant oligohydramnios in the other sac in a monochorionic diamniotic twin pregnancy. However, TTTS does not always show a linear progression and may present with cardiac compromise or critically abnormal Dopplers in either fetus before fluid measurements meet the typically used cutoff. These atypical presentations of TTTS may be missed if Doppler velocimetry is not performed unless both polyhydramnios and oligohydramnios are present.

METHODS: We performed a retrospective review of our database of TTTS laser fetoscopy from 2003–present. Our center is the regional referral center in the Pacific Northwest for minimally invasive treatment of complicated monochorionic twin pregnancies. Cases were labeled as “atypical” if fluid discordance did not meet formal TTTS criteria (oligohydramnios defined as MVP<2 and polyhydramnios defined as MVP>8 before 20 weeks and >10 after 20 weeks). The rationale for consideration of laser fetoscopy was other evidence of severe TTTS such as significant cardiac compromise, evidence of Twin Anemia Polycythemia Sequence (TAPS), or critically abnormal cord Dopplers.
RESULTS: 367 cases of fetoscopic laser ablation for TTTS and its variants were available for review. 4 were excluded due to septostomy prior to referral to our center, 3 for monoamniotic pregnancy and 10 for previous laser fetoscopy. 350 cases remained for evaluation. Among these, 25 cases were identified as “atypical”, equaling 7.14% of our population. Eleven of these were for stage 3 recipient disease, three were for stage 4 recipient disease, four were for stage 3 both in recipient and donor, four were for stage 3 donor disease, and three were for spontaneous TAPS.

CONCLUSION: In TTTS, severity of fetal compromise does not consistently correlate with fluid abnormalities meeting established criteria. This may be especially true in rapidly progressing cases. Attempts at rigid diagnostic amniotic fluid criteria may underestimate the severity and incidence of TTTS. This underscores the importance of careful surveillance, including arterial and venous Doppler velocimetry, of all monochorionic pregnancies.

Formal Discussant: Herman Hedriana, Sacramento, California
FRIDAY: 11:30am-12:30pm  SEPTEMBER 4, 2015

KEYNOTE SPEAKER
THE PEN AND THE STETHOSCOPE: THE LINKS BETWEEN WRITING AND MEDICINE

Abraham Verghese, Stanford, California
(By Invitation)

Book signing to follow

AFTERNOON FREE

12:30pm  Golf - Fazio Course
1:00pm  Birding - assemble in hotel lobby
1:00-5:30pm  Hospitality Suite - Villa 107
5:30pm  Buses depart from Porte Cochere Bus
        Turn Around (right at entrance of lobby)
6:00-9:00pm  Dinner At Waimea Valley*
9:00pm-12:00am  Hospitality Suite - Villa 107
SATURDAY:  7:00-8:30am                September 5, 2015

7:00-7:50am  Attendees Breakfast
Kuilima I & II
Membership Track Breakfast
Caucus & Personal Guests - Hawaii Room

8:00am
O-14.
USE OF A FETAL HEART RATE (FHR) INTERPRETATION AND MANAGEMENT SYSTEM WITH NURSING/PHYSICIAN INTERFACE FOR OPTIMIZING COMMUNICATION AND CLINICAL MANAGEMENT
S. Lovett, J. T. Parer

Angelyn R. Thomas, Orinda, California
(By Invitation)

OBJECTIVE: The objective of this study was to examine nursing use of the Mainstream FHR system for improving communication and fetal outcome

STUDY DESIGN: Labor and Delivery nurses were given the iPad based Mainstream Framework 5-tier system to assess FHR tracings. This is a expanded version of the NICHD 3-tier system with modification of category II, which was divided into 3 subcategories based on FHR variability and depth of decelerations. The study nurses were not involved in patient care and their assessments were not communicated to the clinical nurses.

RESULTS: Seventy-two patients had one or more fetal monitoring strips for a total of 301 nursing assessments. Sixty-three of these patients delivered during their assessment with the Mainstream Framework system. Of these
assessments there were 33 category 1 tracings, 10 category 2A tracings, 14 category 2B tracings, 5 category 2C tracings and 1 category 3 tracing. Twenty-seven patients were delivered by cesarean section. Six of the newborns had 1 minute Apgar scores less than 5. Three of these newborns had 5 minute Apgar scores of 7 or higher. The remaining 3 newborns with low 5 minute Apgar scores included a set of twins with birth weights of 690 grams. A further newborn in this group had Apgar scores of 2, 6, 7 at 1, 5 and 10 minutes respectively. This newborn was 3818 grams delivered vaginally and had a shoulder dystocia. The remaining patients delivered infants with 1 and 5 minute Apgar scores of 7 or greater. Significant fetal metabolic acidemia (Base Excess < -12 mM/L) was not observed in our study population. Preliminary information on the acceptance of this system by nurses was unanimously favorable.

CONCLUSION: The Mainstream Framework is pragmatically useful and acceptable in clinical management for nurses and obstetrical providers. The use of this 5-tier FHR interpretation system is associated with excellent fetal outcomes.

Formal Discussant: Meg Autry, San Francisco, California
OBJECTIVE: To explore the effect of birth experiences, specifically parity and mode of delivery, on the strength of women's delivery preferences.

DESIGN: We conducted a secondary analysis of data from a longitudinal study of women's mode of delivery preferences. Participants were interviewed between 24-36 weeks gestational age and 6-8 months postpartum. Participants were asked whether they preferred a vaginal delivery or cesarean delivery. The strength of patient preferences for mode of delivery and several other labor and delivery outcomes (operative delivery, infection, NICU admission, etc.) were assessed. A novel computer module (ELICIT) was used to measure the strength of participants' preferences using the standard gamble metric. The primary outcome was strength of preference for vaginal delivery at 6-8 months postpartum. The secondary outcome was strength of preference for common labor and delivery outcomes at 6-8 month postpartum. Multiple regression analysis was used to assess the effect of predictors on the strength of delivery preferences.

RESULTS: Of 157 participants, 92.4% stated an antepartum preference for vaginal delivery. Two-thirds (66.9%) of the women had a prior birth, 30.6% with a history of cesarean delivery. Approximately half identified as white (47.5%),
over a quarter (26.3%) were African American, 8.8% were Latina and 17.7% identified as other ethnic groups. 104 participants completed both the antepartum and postpartum interviews. The mean strength of preference score for vaginal delivery (0-1 score, higher number represents stronger vaginal delivery preference) was 0.671 and decreased to 0.631 postpartum but was not statistically significant (p=0.271). Neither parity nor current delivery mode was predictive of change in strength of delivery preference. Only a history of a prior cesarean section was predictive of a lower vaginal delivery preference score at postpartum (B:-0.20 [95CI:-0.38 to -0.02], p = 0.03). Of the group that completed the study, 93 participants had a stated preference for vaginal delivery both antepartum and postpartum. In this group, no statistically significant differences in strength of preference were found across all labor and delivery scenarios (Table 1). See page 104

**CONCLUSION:** We observed that women’s birth preferences remained relatively stable between antepartum and postpartum. We did not find that experience, specifically parity or current mode of delivery, was predictive of change in the strength of women's birth preferences. Among women who preferred vaginal delivery, the strength of both labor and mode of delivery preferences were not significantly changed after going through labor. Women's birth preferences may be more anchored to an individual's baseline preferences about pregnancy, birth or medical care and therefore not significantly changed by the actual birth experience. We did find that a prior history of cesarean section was predictive of a decrease in the strength of preference for vaginal delivery after a subsequent birth. This could be because these women are more likely to have had an attempt at vaginal delivery after cesarean section (VBAC) that ended in cesarean section or chose a repeat cesarean section. For this subset of women, the experience of a second cesarean delivery and low
probability of future vaginal birth may decrease their preference for vaginal delivery. Further study of women's birth preferences may help further elucidate connections between birth preferences and birth experiences, which could improve patient centered obstetric care.

**Formal Discussant:** Sarah Snell, Scottsdale, Arizona
Table 1: Antepartum and Postpartum Utility Scores for Labor and Delivery Scenarios Among Women Who Preferred Vaginal Delivery (N=93)

<table>
<thead>
<tr>
<th>Labor and Delivery Scenarios</th>
<th>Antepartum Utility Score&lt;sup&gt;ac&lt;/sup&gt; Mean±SD</th>
<th>Postpartum Utility Score&lt;sup&gt;bc&lt;/sup&gt; Mean±SD</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VD with pitocin</td>
<td>0.772 (±0.215)</td>
<td>0.796 (±0.216)</td>
<td>0.340</td>
</tr>
<tr>
<td>VD with fever and antibiotics</td>
<td>0.655 (±0.257)</td>
<td>0.680 (±0.280)</td>
<td>0.458</td>
</tr>
<tr>
<td>VD with operative delivery</td>
<td>0.634 (±0.270)</td>
<td>0.619 (±0.295)</td>
<td>0.675</td>
</tr>
<tr>
<td>VD with 3rd degree perineal laceration</td>
<td>0.499 (±0.315)</td>
<td>0.556 (±0.339)</td>
<td>0.159</td>
</tr>
<tr>
<td>Event</td>
<td>Antepartum Utility Score</td>
<td>Postpartum Utility Score</td>
<td>Utility Score</td>
</tr>
<tr>
<td>-----------------------------</td>
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</tr>
<tr>
<td>VD with multiple Interventions</td>
<td>0.403 (±0.315)</td>
<td>0.433 (±0.327)</td>
<td>0.449</td>
</tr>
<tr>
<td>VD with neonatal complication</td>
<td>0.372 (±0.314)</td>
<td>0.381 (±0.329)</td>
<td>0.815</td>
</tr>
<tr>
<td>CD, Uncomplicated</td>
<td>0.284 (±0.289)</td>
<td>0.300 (±0.306)</td>
<td>0.667</td>
</tr>
<tr>
<td>CD with surgical complications</td>
<td>0.099 (±0.201)</td>
<td>0.137 (±0.219)</td>
<td>0.166</td>
</tr>
<tr>
<td>IOL ending in VD</td>
<td>0.644 (±0.329)</td>
<td>0.650 (±0.336)</td>
<td>0.904</td>
</tr>
<tr>
<td>IOL ending in CD</td>
<td>0.225 (±0.286)</td>
<td>0.224 (±0.271)</td>
<td>0.986</td>
</tr>
</tbody>
</table>

VD = vaginal Delivery, CD = Cesarean Delivery, IOL = Induction of Labor

*Antepartum Utility Score was assessed between 24-36 weeks

*Postpartum Utility Score was assessed between 6-8 months postpartum

*Utility Score range is 0-1, higher scores indicate stronger preference
OBJECTIVE: The purpose of this study is to determine the frequency of adverse health outcomes in children exposed in utero to Hyperemesis Gravidarum (HG) and to identify potential prognostic factors for these disorders.

STUDY DESIGN: Outcomes of 312 children from 203 mothers with HG were compared to the outcomes from 169 children from 89 unaffected mothers. Clinical profiles of patients with HG and a normal child outcome were then compared to the clinical profiles of patients with HG and a child with a poor outcome to identify potential prognostic factors. Chi-square or Fisher Exact tests were used to compare proportions between groups with binary responses. Continuous responses were analyzed using a t-test.

RESULTS: Children exposed to HG have a significant increase in odds of having a diagnosis of chronic allergies (p=.02, OR=1.91), chronic constipation (p=.01, OR=2.88), gastroesophageal reflux disease (GERD) (p=.001, OR=4.14), lactose intolerance (p=.02, OR=2.51), chronic respiratory/ear infections (p=.03, OR=2.07), and a chronic sleep disorder (p=.002, OR=4.38). Among characteristics of HG pregnancies, later weight gain in pregnancy and promethazine use are linked to chronic allergies. Earlier hospital admission and antidepressants are associated with having a child with chronic constipation. Exposure to metoclopramide is inversely correlated with having a child diagnosed with GERD. Dolasetron and a peripherally inserted catheter are associated
with chronic respiratory or ear infections. Herbal medicine and homeopathics are also associated with an increased risk of having a child with a chronic sleep disorder. No factors were identified as predictors for lactose intolerance.

**CONCLUSION:** Women with HG are at a significantly increased risk of having a child with a chronic medical condition. Potential predictors for these disorders were identified through analysis of the clinical profiles of patients with HG. While this study does not determine whether any of the predictive factors are causal, clinicians and patients should be made aware of the possible associations.

**Formal Reviewer:** Gavin Jacobson, San Francisco, California
THE EVOLUTION OF ANEUPLOIDY SCREENING AND DIAGNOSTIC TESTING IN A COMMUNITY-BASED MATERNAL-FETAL MEDICINE PRACTICE

J. Russell, M. Okerman, T. Lee, M. W. Tomlinson

Barbra M. Fisher, Portland, Oregon
(By Invitation)

OBJECTIVE: Over the last decade, there has been a move toward aneuploidy screening at earlier gestational ages as well as a progressive improvement in test performance. Noninvasive prenatal testing (NIPT), the newest aneuploidy screening option, continues this trend, offering a dramatic improvement in sensitivity and specificity for the common trisomies over older tests. Our aim is to describe trends in aneuploidy screening and invasive testing over the last 17 years in a single, community-based, maternal-fetal medicine practice.

METHODS: Using a database designed for business and quality purposes, a retrospective review of amniocentesis procedure volumes, antenatal screens (quad screen, first-trimester screen, and sequential screen), and NIPT at the Northwest Perinatal Center in Portland, Oregon between 1998 and 2014 was performed. Using the electronic medical record, indications and pregnancy loss rates for amniocentesis procedures between 2010 and 2014 were also reviewed. This study was approved by the Providence Health & Services institutional review board.

RESULTS: Since 2002, when ultrasound volumes were
first included in our database, obstetric ultrasound volumes 
have increased, from 12,227 to 28,040 examinations in 2014. 
While total ultrasounds volumes have increased, the number of amniocentesis procedures within our practice 
has steadily declined, from a peak of 1198 total procedures 
in 1998 to 221 procedures in 2013. The volume of quad 
screens increased between 1998 and 2001, then declined 
steadily, while the volume of first-trimester and sequential 
screens, first introduced into our practice in 2003, has also 
depressed. NIPT was first offered to high-risk women in 
2012, with volumes of this test rapidly increasing over a 
short time period.

CONCLUSION: Introduction of new aneuploidy screen-
ing technologies to women seeking care in a busy commu-
nity maternal-fetal medicine practice resulted in dramatic changes in the type of testing performed. An increase in 
aneuploidy screening volumes led to a significant decrease in invasive procedures performed. The impact of the de-
creased volumes on training, competency, and procedure-
related loss rates should be closely monitored as these 
trends are likely to continue with the introduction of novel technologies in the future.

Formal Discusssant: John Williams, III, Los Angeles, California

9:50-10:20am
POSTER PRESENTATIONS & INFORMAL DISCUSSIONS/EXHIBITS
Kuilima Foyer and Kuilima III
OBJECTIVE: Analyze if a change in the risk factors for low risk cesarean delivery (nulliparous term singleton vertex cesarean delivery – NTSV CD) occurred after the publication of the ACOG and SMFM Obstetric Consensus Statement, “Safe Prevention of the Primary Cesarean Delivery” published in March 2014 at one institution. Paradoxically our rate of NTSV CD went from 18% in the 12 months prior publication to 22% in the period after this publication.

STUDY DESIGN: Risk factors for NTSV CD were derived from Obstetric Consensus Statement, examples include cervical dilation of 6 cm as the definition of the active phase of labor, allowing at least 3 hours of pushing in the 2nd stage of labor, and amnioinfusion for repetitive variable decelerations. Presence of these factors were derived from chart review along with socio-demographic and other selected clinical factors. The relative contributions of the risk factors to cesarean delivery will be compared for a 12 month time period before and after the guidelines were published.

RESULTS: 94 NTSV cesarean deliveries occurred in the “pre” time period and 129 occurred in the post time period. With a review of 8 pre and 8 post cases, only one was felt
to be potentially avoidable: amnioinfusion for repetitive variable decelerations, however the case was complicated by clinical chorioamnionitis a condition considered by some a contraindication. Those in the pre time period followed appear to have followed the Consensus Statement recommendations.

**CONCLUSION:** Early results do not indicate a trend to explain the increased risk but the sample size is small. Our rate of NTSV CD is low indicating other factors may be underlying the increase seen after the consensus guidelines were released.

**Formal Reviewer:** Michael Fassett, Los Angeles, California
BACKGROUND: The CDC has published guidelines designed to remove many of the barriers women face when trying to use their contraceptives correctly and consistently. Those guidelines recommend Quick Start/Same Day Start for virtually every method, streamlining the evaluation that a woman needs to get her method of choice (separating “well woman care” from “contraceptive care”) and providing women adequate contraceptive supplies. In a study done in the California Family PACT program, it was shown that women who were given one year supply of pills (13 packs) had lower failure rates and lower abortion rates. Returning each month at the exact allowable time to obtain the next pack of pills just does not happen in real life; in one large study fewer than 30% of women returned “on time” each month for refills for one year. Given that the pivotal work was done in the Family PACT system and that Family PACT is the largest family planning program in California, this project was designed to survey every pharmacy in Los Angeles County as a sham patient to determine if women with Family PACT insurance would be able to obtain a one year supply of pills and to gather the information that a patient would be given should she ask to fill her prescription.

METHODS AND MATERIALS: Permission to conduct this study was obtained from both the Research
Committee and the Human Subjects Committee of the Los Angeles BioMedical Research Institute at Harbor-UCLA Medical Center on an exempt basis since there was only minimal risk and no personal identifiers were collected. The IRB expressed concern about possible deception inherent in the study design and approved the study on condition that if the pharmacy being called, directly ask if this was a study, the truth would be disclosed. The telephone numbers of all non-hospital based, non-medical group based pharmacies were obtained online. The survey tool was developed and tested in pharmacies outside of Los Angeles. A team of investigators was cross-trained in use of the survey to obtain uniformity. Data included if the pharmacy was national/regional or local, how long the caller had to wait, how many people she had to talk to and what the answers to her questions were. Data were entered into an Excel spreadsheet.

**RESULTS:** In total there are over 1300 pharmacies in Los Angeles County. The majority recognized Family PACT (often confirming it was the “green card” program). Less than 2% of pharmacies did not offer any birth control. Almost all of those familiar with Family PACT told the patient that a maximum of 3 packs could be given at a time, but many advised the patient to come in to let them “run her card through the machine” to see what was covered (that would take about an hour). Others advised the caller to contact her insurance company to see what would cover. Fewer than 5% offered to sell her the packs that her insurance would not cover. Many were incredulous that a physician would write a prescription for a year supply (“Doctors don’t know anything”), others commented: (“Most insurance companies will only give one month at a time; I think they want the extra co-pays.”)
**DISCUSSION:** Family PACT covers dispensing of 13 cycles by clinics, but covers only 3 packs at a time in pharmacies. Because pharmacies are not apt to advocate for changes that reduce in-store traffic and result in fewer co-pays, and because the evidence is clear that timely access to contraception will reduce unintended pregnancy and abortion rates, it is time to advocate for more generous dispensing policies for contraceptive methods by all companies (either in pharmacies or by mail order options) for those women who choose not to use implants or IUDs.

**Formal Reviewer:** Jill Foley, San Francisco, Californa
IN SITU SHOULDER DYSTOCIA SIMULATION PROGRAMS RESULTED IN FEWER ADVERSE NEONATAL OUTCOMES AND IMPROVED TEAM RESPONSES TO THIS EMERGENCY

C. Irwin

Dale Reisner, Seattle, Washington

OBJECTIVES: Evaluate clinical outcomes before and after in situ Shoulder Dystocia Simulation programs were conducted in a system of community hospitals.

DESIGN: A prospective quality improvement program was instituted to achieve a rapid, standardized process for managing shoulder dystocia in situ at four Level I-III hospitals in our system from 2011-2014. Obstetrical providers, L&D nurses/staff and neonatal emergency response teams participated in these simulation programs, which were conducted during dedicated time without clinical responsibilities. Pre and post data was obtained regarding standardized approach for emergency response, maneuvers, documentation and clinical outcomes. Adverse neonatal outcomes were defined as pH<7 at 5 min, NICU admission, brachial plexus palsy, humerus or clavicle fracture, hypoxic ischemic encephalopathy with or without cool cap therapy or neonatal death (NND).

Continued next page
RESULTS:

<table>
<thead>
<tr>
<th></th>
<th>Pre-Simulation</th>
<th>Post Simulation</th>
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<tbody>
<tr>
<td># Vaginal Deliveries</td>
<td>5784</td>
<td>6121</td>
</tr>
<tr>
<td># Shoulder Dystocia</td>
<td>153 (2.6%)</td>
<td>189 (3%)</td>
</tr>
<tr>
<td>Documented Dystocia Time</td>
<td>115 (75%)</td>
<td>169 (89%)</td>
</tr>
<tr>
<td>Posterior Arm Attempted</td>
<td>46 (40%)</td>
<td>124 (66%)</td>
</tr>
<tr>
<td>Pertinent Negatives (No pushing &amp; No fundal pressure)</td>
<td>90 (58%)</td>
<td>151 (80%)</td>
</tr>
<tr>
<td>Adverse Neonatal Outcomes</td>
<td>24 (16%)</td>
<td>15 (8%)</td>
</tr>
</tbody>
</table>

CONCLUSION: In situ simulation programs which focused on a standardized team approach to managing shoulder dystocia resulted in identification of potential communication, systems and process improvement opportunities, which were addressed. Follow-up data show improved response to this obstetrical emergency including improved neonatal outcomes and better documentation. Teams have also developed greater confidence in their ability to manage shoulder dystocia. Avoiding adverse neonatal outcomes also has medico-legal and financial benefits.

Formal Reviewer: Michael Katz, San Francisco, California
DEVELOPMENT OF AN AGE BASED EVALUATION POLICY FOR LATE CAREER PRACTITIONERS

Gainer Pillsbury, Long Beach, California

OBJECTIVE: Design a process to evaluate the physical and cognitive ability of aging practitioners to determine whether they can continue to practice competently.

DESIGN: A work group was established with representatives from the California Hospital Association (CHA), California Medical Association (CMA), California Public Protection and Physician Health (CPPPH), and Procopio (A healthcare law firm). Policies from other institutions and literature based studies were utilized to develop the final product.

RESULTS: A policy was developed that is intended to respect the rights of the aging practitioner, but identify those who might be experiencing some decline in function and assist them in modifying their practice patterns.

CONCLUSION: Establishing an age based evaluation is a controversial subject with potential legal ramifications since such a process could have a profound impact on a practitioner’s future. Since there is increasing concern about aging practitioners across the country, it is hoped this policy will reassure those whose evaluations are satisfactory, and help those who demonstrate some decline to adjust their activities to ensure the safety of patients. It is also hoped that this policy developed by experienced physicians will forestall the development
of arbitrary standards that could be imposed by legisla-
tion.

Formal Reviewer: Anita Nelson, Torrance, California
SATURDAY: 11:40am-12:00am   SEPTEMBER 5, 2015

11:40-12:20pm
SPECIAL LECTURE
MATERNAL MORTALITY AND DISPARITY IN OBSTETRICS
Elliott Main, San Francisco California

12:30-1:15pm  Second Business Meeting

LUNCH ON OWN

AFTERNOON FREE
1:30-4:00pm  Second Board of Directors Meeting
Maui Room

1:30-5:00pm  Hospitality Room - Villa 107

5:15-6:15pm  Presidential Address - Kahuku Ballroom

6:15-7:00pm  Presidential Reception - Kahuku Ballrom Foyer

7:00-11:00pm  Presidential Dinner/Dance - Kuilima Point

10:00pm-12:00am  Hospitality Suite - Villa 107
SUNDAY: 7:30-10:00am  SEPTEMBER 6, 2015

7:30-10:00am  Farewell Breakfast - Kuilima I & II
The Pacific Coast Obstetrical and Gynecological Society extends its sincere thanks to the following companies for their support of our educational program:

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- Masimo
- Myriad Genetics
- Phillips Healthcare
- Poplar Healthcare
- Roche Diagnostics
- Teva

**EXHIBITS**

- Acelity
- Actavis
- Ariosa Diagnostic
- Astellas
- Baxter BioSurgery
- Bayer Healthcare
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SEPTEMBER 27-OCTOBER 2, 2016
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